

A close-up photograph of a tea tree (Melaleuca alternifolia) plant, showing its characteristic green, needle-like leaves and small, light-colored flowers. The background is a soft, out-of-focus green.

# **Those Amazing Tea Tree Oils**

**A Medicine Kit  
Beauty Salon &  
Cleaning Cupboard  
In One Small Bottle**



# Those Amazing Tea Tree Oils

# Those Amazing Tea Tree Oils

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*DEDICATED TO  
Donald and Victoria*

## ACKNOWLEDGEMENTS

I would like to acknowledge my family, my friends, and everyone in the Tea Tree Oil Industry who have given me such great support and assistance.

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## NOTE TO READERS

Please read page 6

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## INTRODUCTION

When I initially heard about tea tree oil I couldn't believe it. It was too good to be true. Why had we not heard about it before? The truth is we had, but then we had chosen to ignore it!

I have traced the oil of the tea trees back to their roots in Aboriginal Australia, their popularity during the Second World War, right up to the present day worldwide acclaim. I have read the research papers, used them for first aid applications, blended them with other essential oils, made toiletries with them, treated my pets, and even cleaned many household accessories and furnishings with them.

Their versatility and effectiveness constantly amaze me. I would never have believed that essential oils could lend themselves so successfully to so many different applications. Nothing but Nature could have created such valuable, broad-spectrum substances, and that is the beauty of the tea tree oils - they are totally natural.

I wrote this book in an effort to bring all the tea tree oils to your attention, so you, like I, could read about their history, study the research work, utilise their many properties and make up your own mind about mother Nature's potent gifts.

After all, the tea tree oils were created for each and every one of us.

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## PREFACE

Every week, we see the same headlines in the newspapers: 'Head Lice Shampoo - Cancer Scare'... 'The Age of the Superbug is Here'...'Household Chemicals and Pollution Linked to Cancer'... 'Acne Treatment - Damages Skin Cells'... 'Puberty Comes to Nine Year Olds' ..... And, so it goes on.

We are just beginning to wake-up to the fact that the synthetic chemical cocktails we encounter during the course of a lifetime are systematically weakening our bodies. Hairsprays, cosmetics, deodorants, polishes, detergents, perfumes, after-shave, first aid treatments, medicines, air fresheners to name but a few. It is undeniable that our immune systems are beginning to suffer. Where will it all end?

Germs, bacteria and other parasites, are evolving to beat their chemical killers, the superbugs, including MRSA (Golden staph), thrive. Mystery illnesses are on the increase. Do we go on to make stronger chemicals? ... You bet we do!

Are we not forgetting one simple, fundamental fact? Bacterium is a basic, one-celled form of life, and these chemicals are harmful to all life - including our own! When we use harsh chemicals against pathogens, we also unbalance and destroy our own body cells too.

I am not denying that synthetic medicine was, and is, a great gift, but it is the indiscriminate use, in addition to all the other synthetic cosmetics, toiletries, pesticides, fungicides and chemical food additives, that is causing the problem. Over sixty years ago society started to turn its back on Nature and the chemical industry took centre stage. We seemed to forget that we are part of Nature and to turn against it, we are turning against ourselves. It is only now that we are beginning to pay the price.

Now, wouldn't it be marvellous if we could find a safe, non-toxic, non-irritant substance that could replace many of the strong chemicals in our cupboards?

Well, we have! ...

Here is a product that is made by Nature for Nature. A completely natural, topical, clinically proven, anti-bacterial and anti-fungal substance. It has anti-inflammatory, immune system strengthening, pain killing and wound healing qualities too. It also exhibits anti-viral, expectorant and balsamic characteristics.

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PREFACE (Continued)

All this and it can be used as a powerful antiseptic, parasiticide and insecticide. AND it is also relatively kind to our skin cells.

The pure tea tree oil of the *Melaleuca alternifolia*, (with a Terpinen-4-ol content of 37% and a 1,8 Cineole content of <5%) works with the body not against it, and research shows it has rapid results against the new "21st Century Superbugs", including MRSA. The higher Cineole (<15%) tea tree oil (*Melaleuca alternifolia*) has its place in healing too; it is perfect for poultices, and easing bronchial, muscular and rheumatic conditions. All of the many and varied tea trees have their own unique roles in healing. Combined they are a force to be reckoned with, and I am sure that in the future they will take the world by storm.

I still find it ironic that if man had made such synthetic substances and had spent millions of pounds on the development programme, they would have been hailed as the wonders of the Century. Everyone would have known about them, and everyone would be utilising their many properties. However, because tea tree oils are created by Nature they are viewed with suspicion and indifference.

The sooner we all once again wholeheartedly embrace a more natural, integrated, approach in both mainstream medicine and in industry, the sooner we will begin to stem the tide of the so called 'mystery illnesses'.

## Those Amazing Tea Tree Oils

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### CAUTION: PLEASE READ CAREFULLY BEFORE USING THIS BOOK.

- \* This book should be used for information purposes only. It should not be used to diagnose conditions or to replace prescribed medication without a GP's advice.
- \* Caution: People with a serious medical condition should only use tea tree oils under supervision. See a medical aromatherapist if in doubt.
- \* Essential oils are for external use only.
- \* Keep tea tree oils, and all essential oils out of the reach of children.
- \* The constant use of essential oils over a large area of skin, in a higher dilution than 2%, over several weeks, without an interval in between use, is not advisable.
- \* If any essential oil has contact with the eyes, wash with copious water or full fat milk, if stinging persists seek medical advice. Do not rub eyes if using essential oils.
- \* If an essential oil is swallowed in quantity, do not induce vomiting, a large quantity of milk may be helpful or activated charcoal. Seek medical advice ASAP.
- \* Everyone, including pets, that intends to use essential oils, must initially carry out a sensitivity test before use. Put one drop of selected oil or dilution i.e. tea tree oil onto the wrist, cover with a plaster and leave untouched for 24-48hrs. If no adverse reaction, use as described. A separate test must be done for each essential oil, and each 'formulation of oils' (recipe from book) used.
- \* If prone to asthma or allergies, seek medical advice. Strictly patch test initially.
- \* Pure undiluted essential oils should not be used on young children, the elderly or in pregnancy, without a practitioner's supervision.

#### **Tea Tree <5% Cineole, *Melaleuca alternifolia* guidelines only, subject to patch test.**

- \* New-borns should have advice from an aromatherapist.
- \* Young babies should have advice from an aromatherapist.
- \* Babies (18 mths) should not use more than 2% dilution without advice.
- \* Children should not use more than 5% dilution without advice.
- \* People with sensitive skins or the elderly should not use more than a 5% dilution without advice.

- \* If irritation occurs, dilute further or discontinue use, depending on discomfort.
- \* Homeopathy users should seek the advice of their practitioner, certain oils i.e. peppermint oil or eucalyptus oil may affect a prescribed homeopathic remedy.
- \* Essential oils are flammable; do not place near a naked flame.
- \* Tea tree oils are solvents, used neat they may damage plastics and polished wood.
- \* Initially, patch test everything, on a small hidden area, including soft furnishings or furnishings, before the whole object, or part, is cleaned with tea tree oil or a solution of.

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## **Chapter 1: The Roots of the *Melaleuca alternifolia***

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The most therapeutic *Melaleuca alternifolia* oil originates from one small area on the Northeastern side of New South Wales, Australia. The native inhabitants, the Aborigines, were undoubtedly the first to discover the medicinal qualities of this amazing oil. Without scientists and without, what the experts refer to as, ‘acceptable medical knowledge’, these people utilised the many properties of their ‘healing trees’. In particular, it was the Bundjalung Aborigines who inhabited the wetlands around the Bungawalbyn Creek, and it is in this one small area where the most effective essential oil of the *Melaleuca* is found. It is no surprise that the area should be called ‘Bungawalbyn’, which is commonly translated into ‘healing ground,’ a place of well-being. It is understood that these people used the mud from the banks of the creek mixed with the crushed leaves as an early form of poultice. They also used an antiseptic spa, which was formed by water pooling beneath the tea trees, for bathing and cleaning wounds. Even now, there is still evidence of hollows where the healing waters gathered. When the creek floods and then recedes it leaves behind pools of water that steep the fallen leaves of the few *Melaleuca* trees that have survived the colonisation of the area. For centuries, the Aborigines passed down their valuable knowledge, through practical use, from one generation to the next; this is why no written evidence, from that time, can be found today. It was only in 1770, when Captain James Cook and a botanist named Joseph Banks, documented the use of what they christened the ‘tea trees’, that the first reference was actually recorded on paper. Tea tree also became the collective name for a wide range of aromatic evergreen shrubs that colonised the Eastern side of Australia and New Zealand, especially those of the *Melaleuca* and *Leptospermum* genera. It is to our loss that Captain Cook and the crew of the Endeavour did not realise that these tea trees contained valuable medicinal properties. They were obviously searching for a cure for scurvy, but the tea tree leaves do not contain vitamin C, so they used the twigs and leaves for culinary purposes, in ‘spicy’ aromatic teas and in an alcoholic brew, aptly named ‘tea tree’ beer. From the 1790s, as the first settlers colonised the area around the Clarence and Richmond rivers, the name ‘tea tree’ became well known. They watched the Aborigines make poultices, rubbing mediums and ointments (mixed with animal fats), and inhalations from the crushed leaves; and they learnt to use the trees for their own limited first aid applications. Again, because there was no scientific or medical documentation on the use of tea tree oil, when news of the miraculous healing powers reached the European community they were sceptical and dismissed the stories. The Aborigines were classed as savages from a seemingly ‘uncivilised’ world. The settlers made it known that the natives were often rude and lazy; “they didn’t want to better themselves”....“They resisted any attempt to integrate themselves into

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decent society.” Consequently, the whole Aboriginal culture, including their medicinal capabilities, was treated with contempt. As more settlers arrived, they ineptly tried to clear the landscape of its native flora and fauna, making way for their own arable pastures and dairy farms. Fortunately, the flora was already adept at surviving the harshest of conditions and resisted every attempt to eradicate them. The tea trees survived drought, fire, flood and frost, the only way they could have been destroyed was to remove every part of their extensive root system. It is ironic that these very same settlers, who were attempting to destroy the eco system of the wetlands, successfully used the healing qualities of the tea trees to treat their own maladies. It was to be our loss that the ‘bush remedies’ of the time did not reach the attention of the outside world until the 1930s.

The actual tea tree oil ‘phenomenon’ began in Australia in 1922, when the Director from the Museum of Technology and Applied Science, in Sydney, Arthur de Ramon Penfold FCS, presented his first paper to a Symposium at the Royal Society of New South Wales. Penfold’s long awaited paper stated that the oil of the *Melaleuca alternifolia* was found to have anti-bacterial and antiseptic properties. At last, science was beginning to catch up with the knowledge that the indigenous people of the area had recognised for generations. Further studies by Penfold and F. R. Morrison, an Economic Chemist, confirmed that tea tree oil was actually between 11 and 13 times stronger than the accepted anti-bacterial agent of that time, carbolic acid; and, amazingly, it was kind to the skin. Carbolic, also known as phenol, is a poisonous, crystalline acidic compound, which can burn skin tissue. It is also found in coal and wood and is used in the manufacture of resins, dyes, and pharmaceuticals. By 1925, excitement was growing amongst the medical community, on what they now regarded as their own ‘discovery’. In 1930, an article entitled ‘A New Australian Germicide’ by Dr E. M. Humphrey, commented on the fact that the oil had low toxicity levels and a lack of irritancy. Also, in 1930, an article in the Australian Journal of Dentistry classed it as a general antiseptic in dental surgery, “which more nearly answers the ideal than any previously tested”. In 1936, a journal reported that a dreadful case of diabetic gangrene was successfully treated with tea tree oil. In 1937, it was recorded that one of the most outstanding features of the oil was that in the presence of blood, pus or other organic matter, the oil's antiseptic powers actually increased by some 10 to 12 percent. It began to be known that more and more conditions were responding to the application of tea tree oil, including: pediculosis, *Tinea*/ringworm, leg ulcers, mouth and throat infections, nasopharyngitis, catarrh, thrush, aphthous stomatitis, tonsillitis, pyorrhoea and gingivitis.

The individual works of Penfold, Morrison and Humphrey were to be the catalyst of the tea tree industry that we know today. They were passionate

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about the properties of this old bush remedy. Indeed, their sheer enthusiasm for the oil of the *Melaleuca alternifolia* catapulted it into a glare of publicity and prompted many ordinary people to utilise its remarkable properties.

“... What was most encouraging was the way that the oil from the crushed leaves of the *Melaleuca alternifolia* dissolved pus and left wounds and surrounding areas clean and free from infection ...”

“... This was something new as most efficient germicides destroy tissue as well as bacteria. Commencing with a 2.5% dilution with water I found that quite strong solutions and even the pure saponified solution could be used without harm, the oil neutralising the soap and preventing any caustic action ...”

“... It was noticeable that the germicidal action became more effective in the presence of living tissue and organic matter, without any apparent damage to healthy cells ...”

“... It would be particularly good for applying to dirty wounds caused in street accidents and brawls ... Dirty wounds may be washed or syringed out with a 10% watery lotion; the solvent properties will loosen and bring away the dirt which is usually ground in ... healing will readily take place ...”

“... It was an immediate deodorising medium on foul-smelling wounds and pus-filled abscesses ...”

“... What was most encouraging were the results on nail infections, particularly those that had resisted various tried and tested medical treatments for months, which were now cured in less than a week ...”

“... The solvent properties of the oil, which was so good at dissolving pus, also made it an excellent application for the fungal nail disease paronychia, which if left untreated could result in the deformity and even the eventual loss of the actual nail ...”

“... If an ointment could be made for the oil it would help to eradicate several parasitic skin diseases in both man and animals ...”

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The dental associations were urged to take seriously the antiseptic properties of the oil, for clearing infections of the gum and mouth.

“... Just two drops of tea tree oil in a tumbler of warm water made it into a soothing and therapeutic gargle for sore throats in the early stages ...”

“... It would probably be effective for most of the infections of the ‘nasopharynx’...”

“... If it was added to hand soap it would make the soap up to sixty times more effective against Typhoid *bacilli* than the so-called ‘disinfectant’ soaps of the day ...”

The scientific community was beginning to accept that tea tree oil was a valuable medicinal commodity. More funds were made available for research and articles appeared in peer-reviewed journals such as the *Australian Journal of Pharmacy* and the *Australian Journal of Dentistry*. There was worldwide acclaim and articles were included in the *Journal of the Medical Association* (USA) and in the *British Medical Journal*. It was first mentioned in the *Pharmaceutical Codex of 1949*, listed as ‘*Oleum Melaleuca*’. With the increased medical interest, a great deal of anecdotal evidence was collected not only for use on infections, but also burns, wounds, inflammation etc. In addition, it was cited in a wide range of family publications of the period, including one report by a shop owner who stated that by making a 3% shampoo, it had successfully cleared cases of dandruff. Thanks to Penfold, Morrison and Humphrey, it was now recognised as a safe non-toxic, non-irritant, antiseptic disinfectant. It seemed the world would no longer be denied the miraculous healing properties of the Aboriginal ‘healing tree’ the tea tree, *Melaleuca alternifolia*.

## **Chapter 2: The Sapling Industry**

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As the Thirties progressed, tea tree oil was living up to its name as an all round healer. In most cases it had scientific backing, and it was becoming the popular choice of treatment in a wide-range of anti-bacterial, anti-fungal and anti-parasitic applications, including: ear, nose and throat infections; gynaecological infections; nail and skin infections; dental nerve capping; wounds, burns, and numerous other contagious and non-contagious medical and veterinary conditions. From housewives to dentists, veterinary surgeons to doctors, it seemed everyone was utilising its many unique properties. Even the Australian government decreed that a bottle of tea tree oil should be issued for use in Army and Navy first aid kits, especially to soldiers who were serving in tropical countries during the Second World War. During this time, it was discovered that by adding it to the air-conditioning units, in factories, it could clear the high airborne bacterial count. And, if added to the machine cutting oils it would stem the amount of infected cuts caused by the offshoot of metal filings. Because of this, it was classed as a valuable product for the smooth running of the munitions industry, which was vital during the war years; and, anyone involved in the production of the oil was exempt from doing National Service. Inevitably, just a few years after the first accepted evidence had been made public, the demand for a good quality oil had reached epic proportions.

The tea tree industry was, understandably, quite inadequate for the supply that was now being demanded. In the early years, there was just a handful of crude stills, turning out 6-8 tons a year, if that; but as its popularity increased, more stills had to be added to try to meet the ever-growing demand. Even then, there were only about twenty stills in the Bungawalbyn area and these were mostly small family run enterprises. The stills, if they could be called that, were just basic corrugated iron tanks with a fire underneath; the tea tree cuttings were stacked on top and as the water heated, the steam rose up, bursting the oil sacs on the leaves and releasing the essential oil into the water. During the evaporation process the oil and water would collect on the lid, and due to a primitive gravitational separation system, the pure essential oil could be siphoned off with pieces of pipe, while the distillation water fell to the ground. The whole process could take up to eight hours to complete. There was also the question of labour. It was a hard life being a 'bush man.' They would set out at dawn to hack off the terminal twigs and leaves of the natural stands of wild tea trees that grew in the snake-infested wetlands, not returning until dusk with their haul. One good bush cutter could cut up to a ton of leaves a day, which would yield up to 2 gallons of pure oil. Not many people could stand working long hours in the harsh Australian climate, not to mention with all the poisonous wildlife that lived alongside the tea trees.

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It soon became clear that the demand would always be far greater than the supply. Throughout the war years all available stocks were brought under government control. There were no supplies left for the general-public. Soaps and lotions, that had become very popular, disappeared from the shelves. Scientists were called on to make cheaper synthetic alternatives, not surprisingly, they found it impossible to make a good replica of the natural oil. However, they did manage to concoct a chemical alternative and although it was not as good as the pure oil, it was much more readily available. By the end of the war, the pure *Melaleuca alternifolia* oil was still highly sought after, but almost impossible to find. It had been the golden age of the tea tree oil industry.

In 1928, the Scottish biologist Alexander Fleming observed the effect that a type of mould had on bacteria and the first crude form of what would become penicillin was discovered. By 1941, the antibiotic was developed and was in the process of becoming established, synthetic and semi-synthetic drugs replaced plant-based medicines. By 1950, penicillin-based formulae were hailed as the new 'wonder drugs'. The world was gripped as it watched fatal infections being wiped out; the fear that pathogenic diseases, such as tuberculosis, pneumonia and venereal disease had instilled was now diminishing. It was hailed as a miracle. A marvel of modern science and no one wanted to know about natural plant extracts. The growing power of the pharmaceutical industry seized the moment, trying its best to wipe out what it saw as 'the competition'. Anecdotal evidence would no longer be tolerated and herbalists were classed as charlatans and quacks, forbidden to practice their medicine. As more pharmaceutical money was poured into scientific departments, doctors were educated to prescribe only synthetic drugs, and the medicine of plants was all but forgotten. The hype gathered momentum, and grand assurances of efficacy were made, modern medicine proclaimed itself invincible; it would vanquish any disease Nature could inflict upon us. Not surprisingly, we were seduced by the idea of a world free of disease. Added to all this, the pure tea tree oil was being 'cut' with lesser quality oils and its reputation was in tatters. The tea tree industry went into steep decline, and nearly twenty years would pass between published clinical trials on the oil of the *Melaleuca alternifolia*.

In the late 1950s, a slow revival began; inevitably, modern medicine had failed to live up to its promises. Degenerative diseases were still afflicting the population and were on the increase. Unfortunately, the pharmaceutical industry knew that the most money was to be made from controlling the symptoms of a disease and the 'cure' became an elusive ideal. They were interested solely in making money for their investors; curing non-pathogenic disease was never part of the equation. If diseases were wiped out there would be no need for cartels and power would be lost; the big money would

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be in controlling symptoms. Lobbying organisations were set up to ‘look after’ pharmaceutical interests, government departments designed to oversee the industry were mainly controlled by the men who were trained by that very same industry. Press offices released only positive information on trials that had been financed by the drug companies themselves. Money was being poured into clinical trials that would condemn the constituents in natural, herbal medicines. Then came the first signs that the antibiotic may not be the panacea that it was first thought to be. It was over-prescribed to such an extent that some strains of bacteria were starting to evolve to beat their chemical killers. Unfortunately, the arrogance of the scientific community was as strong as ever and they continued to ignore the warning signs, denying that there was a problem. The ‘superbug’ was evolving and no one was taking any notice.

Not before time, ordinary people were once again taking an interest in herbal medicine as they searched for an alternative to harsh drugs, and the tea tree industry started to stir. In January 1960, Dr Henry Feinblatt (USA) had conducted a trial after noticing that tea tree oil was adept at eradicating trapped bacteria under the skin, mainly associated with boils. Of his twenty-five cases treated topically, only one case required incision after treatment. Fifteen cases were completely cured, and the rest improved after eight days. He noted that the oil of the *Melaleuca alternifolia* produced more rapid healing, without scarring. His work was published as a favourable study in the Journal of the National Medical Association; it was entitled “Cajeput-type oil for the Treatment of Furunculosis” (boils). In June 1962, Dr Eduardo F. Pea (USA), completed a study, which was published in *obstetrics and Gynaecology*, “*Melaleuca alternifolia* oil – Its use for *Trichomonal Vaginitis* and other Vaginal Infections”. Vaginitis simply means inflammation to the vaginal area, with the cause of the irritation, *Trichomonas vaginalis*, tiny protozoa of the flagellate family. It can be sexually transmitted and is often seen as a greenish yellow, foul smelling discharge, accompanied by itching and intense soreness of the area. Of the 130 women who took part in the study, ninety-six cases had trichomonal vaginitis and the rest had thrush or cervicitis. The tea tree diluted to less than half a percent (0.5%) was administered on tampons and washes to the area. All cases were cured in six treatments. There were no reports of irritation from the application. Indeed, the unanimous verdict was that the oil produced a cooling, soothing sensation and completely stopped the foul smell.

In April 1972, Dr Morton Walker, had the results of his six year study, “Clinical Investigation of Australian *Melaleuca alternifolia* for a Variety of Common Foot Problems”, published in the Journal of Current Podiatry. Of the sixty patients who were involved in the study, it was concluded that tea tree oil had relieved or eliminated symptoms in fifty-eight of them. Among

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the problems treated were: athlete's foot, bunions, hammer toes, calluses, corns, peeling and cracking skin lesions, fungal toenail infections and bromhidrosis (smelly feet). The results of these positive trials started to appear in the media, most notably the '*Perfumer and Flavourist*' the '*Planta Medica*' and the '*Manufacturing Chemist*'. Awareness was increasing and people were starting to demand more information and a supply of pure oil. The perfume and cosmetic industries, sensing an interest in anything with the name 'tea tree' on it, began to take a cautious interest.

Again, the tea tree oil industry had been taken by surprise. Up to, and during, the 1970s, all the tea tree oil had been harvested from wild trees, but as demand increased, and more areas of natural stands were being destroyed, along with the associated eco-systems, it was clear that something had to change. Therefore, from the early 1980s, semi-commercial farms were set up and tea trees were planted on the arable farmlands. By the late 1980s, the first plantations were becoming established and mechanical cutting was introduced. When the local tobacco industry started to decline in the early 1990s, farmers were encouraged to take advantage of government restructuring packages and diversify into other crops. Naturally, many of them opted for the now lucrative business of growing tea trees. Tea tree oil production was substantially increased to meet the seemingly never-ending demand for high quality oil.

Meanwhile, research started to increase again. In 1985, Dr Paul Belaiche, Professor of Phyto-therapy at the Faculty of Medicine, University of Paris Nord, published three studies on the use of tea tree oil and various infections. One of the problems with over-prescribing antibiotics is that most of the body's beneficial bacteria is destroyed along with the pathogens, leaving an environment where the resident pathogens, most notably *Candida albicans* can flourish. The first study, comprising of twenty-eight women, with a vaginal infection of *Candida albicans*, commonly called 'thrush' and characterised by an itchy white discharge, were given tea tree pessaries, which had to be inserted every night. After the first week one patient discontinued treatment because of sensitisation, of the other twenty-seven, all continued, twenty-three showed a cure, the other four had a moderate improvement. Dr Belaiche observed.... "The essential oil of *Melaleuca* has entered the team of the major essential oils and emerges as a therapeutic oil of the first order in phyto-therapy."

The next study was a double blind trial in which half of twenty-six female patients with chronic cystitis were given the oil and half were given a placebo. After a period of six months, the placebo group showed no improvement, but of the thirteen in the tea tree group, seven were cured, which, because of the nature of the infection, was seen as a significant result. In his other study on skin and nail-bed infections including *Staphylococci*, *Strepto-*

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*cocci* and *Candida albicans*, Dr Belaiche reported that the most convincing result of all was in the treatment of fungal nail-bed infections, frequently caused by *Candida spp.*

Eight out of eleven patients showed a complete recovery by having twice daily applications onto the nail-bed, for up to twelve weeks. Like many others before him, Dr Belaiche was amazed by the low irritancy and low toxicity of the oil compared with other essential oils.

In 1987, Walsh and Longstaff published their paper on oral pathogens in periodontal disease, and showed that, even at a very low dilution, tea tree oil acted against a wide range of oral pathogens, which cause a variety of dental problems including plaque formation, tooth decay and gum disease. During the next two years, investigations into its anti-microbial properties started to increase. In 1988, Williams and Home et al. "The composition and bactericidal activity of the oil of *Melaleuca alternifolia*" and P. M. Altman, "Australian tea tree oil." In 1989, Altman also published "Australian tea tree oil – a natural antiseptic." These led the way to a profusion of studies during the following decade. In 1990, Bassett, Pannowitz and Barnetson's comparison study on the effects of 5% tea tree oil and 5% benzoyl peroxide on acne, found that both had a significant effect in ameliorating (improving) the patient's acne... encouragingly fewer side effects were experienced by the patients treated with tea tree oil. The results were published in the *Medical Journal of Australia*. In 1991, a report from the Division of Podiatry at the Royal North Shore Hospital, Sydney, and cited in the *Australian Journal of Pharmacy*, stated that 70 patients treated for severe dry skin problems (Anhydrosis), especially of the legs, used a 5% tea tree lotion, with the majority of cases reporting a marked difference. In 1994, Buck, Nidorf, and Addino's, study "Comparison of two topical preparations for the treatment of onychomycosis: *Melaleuca alternifolia* (tea tree) oil and Clotrimazole" was published in the *Journal of the Family Practitioner*. It was concluded that tea tree oil was as effective as the Clotrimazole treatment for the eradication of nail-bed fungus.

A recent report suggests that tea tree oil is not just a medicinal product but also a useful preservative in natural creams and lotions. The results showed that a pharmaceutical grade oil in concentrations of only 0.5%W/v provides natural and effective preservation, which passes both the USP and BP challenge tests, (SOFW Journal May 1995). It has also been suggested that it also has antioxidant capabilities, so is a valuable addition to skin creams.

A scientific research team, lead by associate Professor Tom V. Riley, at the microbiology department, University of Western Australia, has had many clinical research papers and letters published in peer reviewed journals. Professor Riley, BAppSc, MAppEpid, PhD, FRCPath, AAIMS, FASM, who heads the team, has dual appointments at The University of Western Aus-

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tralia and The Western Australian Centre for Pathology and Medical Research. Dr Christine F. Carson, BSc (Hons) PhD., started work on tea tree oil in 1993 and submitted her PhD thesis on the anti-microbial properties of tea tree oil in 1999. Her other work includes: examining tea tree oil's mechanism of action against bacteria and co-ordinating the group's work and collaborations. Dr Kate A. Hammer, BSc, Post Grad Dip Sc., PhD., joined the group in 1994; she has been involved in many of their research projects and has focused mainly on the anti-bacterial properties of tea tree oil and more recently the anti-fungal properties. Dr Jane E. Greig, BSc (Hons), investigated the incidence of skin allergy to tea tree oil (1998), in a study funded by RIRDC. In mid 1999, Ms Lynn Ashton RN, coordinated the tea tree oil clinical trials and has worked on a pilot study investigating the use of tea tree oil in the treatment of cold sores. Ms Michelle Lincoln, BSc (Hons), studied the effect of tea tree oil on *Legionella* and *Acanthamoeba* species. Both of these trials were funded by industry. Ms Linda Dry BSc. joined the group in January 2000 to continue investigations into the in vitro activity of tea tree oil against viruses. As part of this, she was also involved in culturing patient specimens for the herpes labialis clinical trial. Before she left, she had worked for some time on the project investigating the in vitro activity of tea tree oil against oral microorganisms. Ms Gail Lampacher, RN joined the group in July 2000 to implement the clinical trial investigating the use of a tea tree oil gel in the treatment of herpes labialis (cold sores). Her work was co-funded by the RIRDC and Australian Bodycare Pty. Ltd. Ms Chelsea J. Longbottom BSc (Hons), was employed as a research assistant with the group in December 2002, after completing her honours project on tea tree oil. In 2004, she commenced a PhD. The focus of her research is investigating the mechanisms of bacterial resistance to tea tree oil and components. Dr Syndie Messenger BSc, PhD., obtained her PhD from the Welsh School of Pharmacy, Cardiff, in 2002. She was with the tea tree oil research group for two years, from September 2002, as a postdoctoral research fellow. Her research involved evaluating the efficacy of tea tree oil as a topical antiseptic or disinfectant, using European standard methods as well as a new ex-vivo model. This project was funded by RIRDC and Novasel Ltd. Dr David W. Smith, BMedSc, MBBS, FRCPA, MASM. Clinical Director of the Division of Microbiology and Infectious Diseases at the Western Australian Centre for Pathology and Medical Research is at present working with the team. He is involved in several of the tea tree oil research projects. His main research interests include: mosquito-borne virus infections, antiviral agents derived from plants, surveillance of infectious diseases using molecular methods, papilloma virus infections, cervical cancer and PCR-based diagnostic techniques.

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The group are continuing to study the many and varied properties of tea tree oil, supported mainly by industry and the RIRDC. Their most notable writings include: Anti-microbial activity of the essential oil of *Melaleuca alternifolia* [A Review], 1993. Susceptibility of *Propionibacterium acnes* to the essential oil of *Melaleuca alternifolia*, 1994. Antimicrobial activity of the major components of the essential oil of *Melaleuca alternifolia*, 1995. Susceptibility of methicillin-resistant *Staphylococcus aureus* to the essential oil *Melaleuca alternifolia*, 1995. Broth micro-dilution method for determining the susceptibility of *Escherichia coli* (*E coli*) and *Staphylococcus aureus* to the essential oil of *Melaleuca alternifolia*, 1995. Susceptibility of transient and commensal skin flora to the essential oil of *Melaleuca alternifolia*, 1996. In-vitro susceptibility of *Malassezia furfur* to the essential oil of *Melaleuca alternifolia*, 1997. Use of the essential oil of *Melaleuca alternifolia* (tea tree oil) in cutaneous fungal infections [Letter], 1997. In-vitro activity of essential oils, in particular *Melaleuca alternifolia* (Tea Tree oil and Tea Tree oil products) against *Candida spp.*, 1998. A brief review of antifungal activity of the essential oil of *Melaleuca alternifolia* (tea tree oil) [Review], 1998. Efficacy and safety of tea tree oil as a topical anti-microbial agent [editorial], November 1998. In-vitro susceptibilities of *Lactobacilli* and organisms associated with bacterial vaginosis to *Melaleuca alternifolia* oil, 1999. Influence of organic matter, cations and surfactants on the antimicrobial activity of *Melaleuca alternifolia* (tea tree) oil in vitro [Article], March 1999. Anti-microbial activity of essential oils and other plant extracts [Article], June 1999. Allergic contact dermatitis following use of a tea tree oil hand-wash not due to tea tree oil, December 1999. In-vitro activities of ketoconazole, econazole, miconazole, and *Melaleuca alternifolia* (tea tree) oil against *Malassezia* species [Article], February 2000. The Prevalence of delayed hypersensitivity to the European standard series in a self-selected population 2000. *Melaleuca alternifolia* (tea tree) oil inhibits germ tube formation by *Candida albicans*, 2000. A randomised, placebo-controlled, single-blind pilot study to evaluate the efficacy of tea tree oil gel (6%) in the treatment of herpes labialis, 2000. Tea tree oil as an alternative topical decolonisation agent for methicillin-resistant *Staphylococcus aureus*, 2000. Terpinen-4-ol, the main component of the essential oil of *Melaleuca alternifolia* (tea tree oil), suppresses inflammatory mediator production by activated human monocytes, 2000. The water-soluble components of the essential oil of *Melaleuca alternifolia* (tea tree oil) suppress the production of superoxide by human monocytes, but not neutrophils, activated in vitro [Article], 2001. Safety, efficacy and provenance of tea tree (*Melaleuca alternifolia*) oil [A review], 2001. *Melaleuca alternifolia* (tea tree) oil gel (6%) for the treatment of recurrent herpes labialis (letter), 2001. Mechanism of action of *Melaleuca alternifolia* (tea tree) oil on *Staphylococcus aureus* determined by time-kill,

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lysis, leakage, and salt tolerance assays and electron microscopy, 2002. In vitro activity of *Melaleuca alternifolia* (tea tree) oil against dermatophytes and other filamentous fungi, 2002. Antifungal activity of the components of *Melaleuca alternifolia* (tea tree) oil, 2003. The compilation and review of published and unpublished tea tree oil literature (UWA-75a), 2003. Susceptibility of oral bacteria to *Melaleuca alternifolia* (tea tree) oil in vitro, 2003. Antifungal effects of tea tree oil and components against *Candida albicans*, *Candida glabrata* and *Saccharomyces cerevisiae*, 2004. Tolerance of *Pseudomonas aeruginosa* to *Melaleuca alternifolia* (tea tree) oil is associated with the outer membrane and energy dependent cellular processes, June 2004. Various other trials, projects and medical collaborations are also in the pipeline, including: Assessing the in situ efficacy of tea tree oil as a topical antiseptic (UWA-72a); Tolerance of *Pseudomonas aeruginosa* to tea tree oil (UWA-79a); Effects of tea tree oil on *Staphylococcus aureus* virulence factors (UWA-80a).

In the UK, British microbiologists, Giles Elsom and Denis Hide from the University of East London, published a letter in the *Journal of Antimicrobial Chemotherapy*, based on their work with tea tree oil: 'Susceptibility of methicillin-resistant *Staphylococcus aureus* to tea tree oil and mupirocin' 1999. They have other papers in the pipeline and are hoping to oversee a trial of a tea tree liquid soap in a London hospital, but to date the ethics committee is still reluctant to sanction its use on the wards.

A great deal more research must be carried out in this area; time is of the essence, as MRSA claims more lives the medical profession dither about whether to trial this 'natural substance' in hospitals. A quick look at the background and history of the chemical alternatives available on the wards makes a mockery of their claims that "it may not be safe to use." For nearly nine years, it has been known that tea tree oil can inhibit and destroy MRSA carriage when used as a decolonisation agent in a 5% dilution. How many lives have been blighted or even lost in that time? It is an on-going tragedy that will continue until someone, somewhere, starts to put lives before profit margins.

At last, it seems that the incredible properties of the tea trees are starting to be taken seriously once again and the scientific work is actually gathering momentum; hopefully, this will give the oil the much-needed credibility with those who choose not to see the healing of generations of people as proof of efficacy. Complementary practitioners, aromatherapists and ordinary people, all over the world are utilising its many properties and are noticing the good effects on many conditions, including: cuts, wounds, ulcers, sores, boils, abscesses, acne, burns, skin infections and inflammations, *Herpes* sores - cold sores, shingles etc., *Tinea* infections - athlete's foot, ringworm, psoriasis, impetigo, nappy rash, dandruff, anal and genital infections, urinary and

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vaginal infections, throat, bronchial and sinus infections, bad breath, mouth ulcers, infected gums, stings and bites, scabies, lice and flea infestations, and many other conditions have all responded remarkably well to treatment with this amazing essential oil.

The Rural Industries Research and Development Corporation (RIRDC), which was formed in July 1990, encourages the research and development of all Australian rural industries including the tea tree industry. Since the late 1990s, 'The Australian Tea Tree Industry Association' (ATTIA) has been committed to overseeing the development and production of tea tree oil and maintaining the highest standards possible, whilst also working with the RIRDC, to generally promote the industry both at home and abroad. They set standards for their members to reach, ensuring that the rest of the world can enjoy the authentic pure tea tree oil of the *Melaleuca alternifolia*, with a composition that falls well within the Australian Standard (AS 2782 - 1985) and the International Standard for 'Oil of *Melaleuca*', Terpinen-4-ol type (ISO 4730). During the period 1994 to 1997, 'AusTTeam' was formed and run by a group of plantation owners, growers and marketing men to increase the general-publics' awareness and understanding of tea tree oil. Out of all of the modern plantations, they estimated that, around 80% were owned by AusTTeam shareholders. By 1995, over 8000 acres of plantations had been established, but there was still a considerable amount of research work continuing to determine optimum yields and how to produce the best quality oil possible: the subtropical climate from 27° to 32° (a tea tree thrives on high rainfall - fifty inches of rain per year); the soil (sandy/loam but tolerant of clay); the time of harvest - November to June being the best time; the growing methods; the age of the leaves when cut and the distillation processes, can all determine an inferior or a high quality oil.

The trees in the South of the area tend to yield a higher cineole content and lower terpinen-4-ol content than trees from the North of the region. So, because temperature and growing conditions play a part in obtaining a good quality oil, cloning projects are being set up to produce trees that will grow in a different climate, and still yield a high quantity of oil with 39% terpinen-4-ol and 3% cineole with a low para-cymene (potential irritant) content for the commercial market. New areas in West Wyalong (central NSW), India, Vietnam, Guatemala, China, and even in Zimbabwe and neighbouring African Countries, and the United States of America, are being tested for their ability to sustain the *Melaleuca alternifolia* tea trees outside Northern New South Wales.

The tea tree industry, which had planted over 12 million self-generating trees in 1989, has continued to increase the annual number of individual plantings through the 1990s and plans to continue well into the 21<sup>st</sup> Century. In 1995,

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over 150 metric tons of oil was produced, and it was estimated that this would rise to an excess of 350 metric tons per annum by 1999, and possibly up to 1000 metric tons in the first decade of the new century. Today, there are nearly 280 'active' plantations and farms with over 97% of the commercial production of oil obtained from cultivated and managed trees. Up to 90% of all commercial oil is exported to Europe, USA and parts of Asia. Unfortunately there is a down side that comes with big business, along with the dedicated tea tree farmers, in the 1980s corporate people arrived to cash in on the huge tax advantages of growing tea trees. They offered many incentives to their investors and the money poured in. The industry's bubble has now burst and it seems to be going through a metamorphosis. It is claimed that the small family run farms are no longer viable. The huge corporate plantations are flooding the market with oil that is cheaper, per kilogram, than the cost of farm production. Some of these plantations invest in closely guarded research work, which is not published, but is only issued to their own customers. Consequently, the very tea tree industry that gave them so much does not benefit. In this, the 21<sup>st</sup> Century, the RIRDC is looking for a solution and has appointed new board members in a renewed effort to assuage the situation. It is also true that most of the larger tea tree plantations, do contribute to the valuable research work and the more ethical ones do have the results published in the public domain, which also benefits the whole industry. The plantations set millions of cultivated trees each year and try to maintain them using as many natural biological controls as possible, which is in-keeping with their continued commitment to the re-vegetation and conservation of the local wet-lands and eco systems.

When all is said and done, production of tea tree oil is one of the more 'greener' industries. With increasing concern for the environment, global warming and the burning of fossil fuels, it may be comforting to know that by using tea tree oil, you are not adding to the destruction of the trees, but are actively helping in the replanting of the land, that was laid bare by the first 'white settlers' over 200 years ago. The tea trees are one of Australia's renewable resources; they are indigenous to the wetlands, and part of the vast eco-system of the area. A single tree can be harvested for decades, growing healthier and more vigorous with each cutting. It takes just eighteen months to fully recover its growth (ratoon) from being cut to a stump. Nothing is wasted, once the oil has been extracted, the leaves are composted and used as an 'organic' soil conditioner, even the 'end water' that was used in the vaporising tanks during several distillations, can be utilised in cosmetic preparations, agriculture, and veterinary supplies.

### Chapter 3: The Real *Melaleuca alternifolia* Oil

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There are literally thousands of species and sub-species in the family *Myrtaceae*. Most, if not all, are evergreen and have aromatic leaves with glandular sacs containing essential oil. Within this family are the: myrtle, bayberry, bottlebrush, pimento *Eugenia*, *Callistemon*, eucalyptus, the tea trees *Melaleuca spp.*, and the tea trees *Leptospermum spp.* The *Melaleuca* genus itself contains over 150 varieties of hardy 'tea trees'. The more well known, *M. cajuputi* and *M. leucadendron* provide us with the essential oil, cajeput; *M. viridiflora* and *M. quinquenervia* the essential oil, niaouli. All have germicidal qualities, but only one *Melaleuca* tea tree provides us with a powerful, broad-spectrum, germicide that is also kind to the skin. It is only found in one comparatively small area of New South Wales, around the Northern Rivers. It is very interesting that the same trees grown outside this area, as yet, do not yield oil that is so suitable for use as a topical first-aid treatment. The *Melaleuca alternifolia* (Cheel); is also known as the 'Pinleaf Tea Tree' and the 'Narrow Leaf Paperbark Tree'. 'Paperbark,' because the bark actually looks like strips of paper, which peel from the entire height of the trunk. Aborigines used this 'paper-like' material, because it was soft and relatively strong, for bedding and as swaddling for their babies. The settlers often used it as insulating sheets inside the walls and roofs of their homes and cattle sheds. It was also used for caulking boats and as a packing material for fruit and vegetables. Today the Australians, who are famed for their barbecues, use the bark as an aromatic 'pouch' for barbecuing meat and fish. Research in America suggests that it could soon be used as an alternative to peat, a fibrous soil conditioner, rather like coir (coconut fibre).

The therapeutic uniqueness of the *Melaleuca alternifolia*, and its effectiveness as a germicide, stems from its complex composition. In 1968, twelve constituents of tea tree oil were isolated (Guenther). In 1978, forty-eight constituents were identified (Swords & Hunter). In 1989, due to a more precise chromatographic analysis, it was revealed that there are at least 97 constituents (Brophy et al). Currently, we know that there are actually over one hundred constituents, working synergistically to create those unique healing properties.

The compounds in *Melaleuca alternifolia* oil can vary widely, but on average contains mainly hydrocarbons (incl. *monoterpenes* 20%-40%, *sesquiterpenes* 2%-20%) oxides and alcohols (*monoterpenols* 30-60%, - including Terpinen-4-ol *sesquiterpenols* 0.5%-6%) etc. There are at least four constituents that are not usually found in plants, some were completely unknown at the time of identification and names had to be created for them: *viridiflorene*, (present at 1%),  $\beta$ -*terpineol* (0.24%) *1-terpineol* (trace) and *allyl hexanoate* (trace).

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The exact composition, and indeed effectiveness of the oil, is due to the climatic conditions and types of soil; variations in either can produce several different chemotypes of the same genus of tree. Samples taken at random, from botanically identical trees, have shown that there can be a considerable change to the proportion of the constituents that make up the composition, and occasionally some minor ones can be lost or even gained. The distilling methods and amount of time elapsed during distillation can also affect the composition, and subsequently the grade of the oil. *Melaleuca alternifolia* (Maiden & Betche), was once described as a chemotype variety (chemovar) of *M. linariifolia* (*Melaleuca linariifolia* var *alternifolia*) before being raised to specific rank by Cheel; the *linariifolia* variety was classified by Smith. Both varieties are still cultivated and are unfortunately sold with others from the *Melaleuca* family under the “Tea Tree - *Melaleuca* type oil” label. The difference between the two *Melaleuca* is usually characterised by an inverse alpha-thujene / alpha-pinene ratio, otherwise the constituents are quite alike, although the aroma of the *M. linariifolia* is typically more eucalyptol type.

A few years ago, skilled cutters could identify and reject trees that were too high in cineole, just by crushing and smelling the leaves. Today a more scientific evaluation is carried out. Every reputable tea tree oil company in Australia ensures that their own oil is independently analysed and confirmed to be within the Australian Standard (AS 2782 1985) and now the International Standard (ISO) 4730 (1996), which states that tea tree oil should be extracted from the *Melaleuca alternifolia*, *Melaleuca linariifolia*, or *Melaleuca dissitiflora*, and stipulates a standard of 14 main constituents. Most of the plantations and farms grow the *Melaleuca alternifolia* and their oil is usually well inside the standard required, their bottles are labelled accordingly. Some plantations are now using new technology to clean up their oil, so that undesirable components are taken out, and more desirable ones added, but whether this affects the overall therapeutic properties will remain to be seen. Could such an oil still be classed as natural? Certainly, we have not seen the last of this kind of tinkering.

The major therapeutic constituent is without doubt terpinen-4-ol. It is responsible for the powerful, yet gentle, germicidal qualities. Recent research has also linked it with potent anti-inflammatory properties. Tea tree oil containing more than 30% is very desirable, but again the range of the percentage can vary considerably, from under 5% to over 45%. The therapeutic oils have a terpinen-4-ol content around 37%. It has a natural inversely proportional ratio to 1,8 Cineole, so high cineole tea tree oils have a low terpinen-4-ol level. A good balance between terpinen-4-ol and 1,8 cineole is essential for both anti-microbial and skin penetrating properties. 1,8 cineole is found in quite high levels in eucalyptus oils, and many other oils of the *Melaleuca*

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genus. It contributes to the 'eucalyptus' like aroma and camphorous qualities, and is sometimes referred to as 'eucalyptol'. If too high the tea tree oil is noticeably of eucalyptol type and probably the oil has either been mixed with another variety of *Melaleuca*, adulterated, or is not up to the high quality that it should be. It could also be that the oil is the high <15% cineole tea tree oil, and is of a different grade; it would be wise to check this with your supplier. Cineole is chiefly responsible for the skin penetrating qualities, this allows tea tree oil to be so effective in the eradication of boils and septic lesions.

A high cineole content was not normally recommended because it was thought to be a skin irritant and an allergen. It may still be the case that oxidised cineole can cause irritation, but more research and collaboration is needed to determine the correct information. A study funded by the RIRDC: "Why cineole is not detrimental to tea tree oil" (Southwell, I; Markham, J. et al (1997) points to other constituents such as *ara*-cymene and limonene being the likely culprits. It is known that the oil can become contaminated and subject to oxidation, if not distilled or stored correctly. It has been shown that when tea tree oil degrades the oxidation of the terpenes and related components leads to an increase in *para*-cymene.

Any one of these factors alone could cause an allergic reaction in the susceptible, and local irritation to skin cells. It is advisable to know your supplier, then only purchase fresh oil and store as stated on the bottle. Make sure that the expiry date is printed on the label and that it has not yet expired. As a general guide, when the oil leaves the plantation it usually has around a two-year shelf life, subject to storage conditions, although some plantations that have researched this, claim that in nitrogen-capped storage drums it has a shelf life of up to three years. When it is purchased, it should be stored correctly (in a dark glass, airtight bottle, in a cool, dark place), and used within 12 months of opening, the earlier the better if the user is prone to allergies. If it is mixed with carrier oils, it should be labelled and stored in an airtight, dark glass container, in a cool, dark place; it is then best to use the blend within three months. On no account should a homemade mixture of 'oil and water' or 'oil and milk' be stored for longer than 24 hours, if it is to be used on the skin.

There is an ideal solution to the cineole problem, one that would be of benefit to both the consumer and to the tea tree oil industry. There is room on the market for both a 'low cineole' (less than <5% cineole oil), and a 'high cineole' (less than <15% oil). So instead of classing them as the <5% 'high grade' and the <15% 'low grade', they could be marketed side by side, with clearly defined labelling. Each oil has its own place in healing. The <5% 'low cineole', with its unique capabilities, could be used as an antiseptic in the home, and in hospitals to combat MRSA. The <15% 'high cineole' oil could be used for rheumatic and arthritic 'rubs', for muscular aches, poultices, and

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in aromatherapy for inhalation (colds, flu, bronchial infections etc.). It could also be added to filtration (air conditioning systems) units to combat the high bacterial count. It is unlikely that this would cause confusion because along with the extensive labelling, cineole (Eucalyptol) has a distinctive aroma, so as soon as they were opened, anyone could differentiate between the two oils. In 1967 The Australian Standard (AS K175 - 1967) for 'the oil of *Melaleuca*' stated that the terpinen-4-ol content should be higher than 35%, and the 1,8 cineole content lower than 10%. Unfortunately, this led to an over production of oil that failed to meet the required standard. In 1985, the Australian Standard (AS 2782 - 1985) was revised and re-issued stating that the oil should have a terpinen-4-ol (higher than) 30% and the 1,8 cineole content (lower than) <15%. In 1996, the ISO 4730 stipulates that 14 components should come within a set range. There are quite a number of reputable distributors that fall well within these parameters. The 'high grade', premium oils today have a 1,8 cineole content between 2% and 5%, with a terpinen-4-ol content between 37% and 42%. In the Seventies there was a scandal involving tea tree oil and the extraction of terpinen-4-ol. A small number of European suppliers were isolating it and selling it separately from the essential oil. The labelling laws were not very strict, and the main constituents did not have to be displayed. This all led to some adverse publicity, and the industry was temporarily placed into disrepute. Fortunately, with the higher quality of testing techniques, this is unlikely to happen again, especially with the added safeguard of only purchasing from a reputable company. This reminds me of a very apt slogan I once saw, during my dalliance with consumer competitions:

'Nothing added, nothing removed, Nature's best cannot be improved.'

The visual appearance of a good quality 'high grade' tea tree oil should be a clear, colourless to pale yellow, mobile liquid. The aroma should be warm, spicy, and mildly antiseptic. If the aroma has more than a hint of eucalyptus, it should not be used neat on areas of broken or problem skin, for young children, or for the elderly. I once saw a UK distributor marketing a very 'cost effective' tea tree oil and describing the aroma as 'dirty pine', the implications of this spoke for itself, or should I say 'smelt' for itself! If in doubt, go back to the supplier and ask to see a detailed specification, a good supplier would be happy to oblige. Because there are over 150 species of *Melaleuca* tea trees, there are many oils that can technically be called tea tree or *Melaleuca* oil. If you are to be assured of good quality tea tree oil, you should always remember to purchase the oil with '*Melaleuca alternifolia*' actually displayed on the label. Also, because botanically identical trees can have different chemotypes (chemical compositions), depending on where grown and how grown, it is important to have the two main constituents

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clearly displayed; either "<5% 1,8 cineole and 37>% terpinen-4-ol" for a low cineole (high grade) tea tree oil or "<15% 1,8 Cineole and 30>% Terpinen-4-ol" for a high cineole 'eucalyptol' tea tree oil. It should be noted that although some people label tea tree - Ti-tree oil, which is technically attributed to the New Zealand/South Pacific plants from the *Cordyline* genus (cabbage palm) and nothing to do with *Melaleuca* tea tree oil.

In 1988, the occurrence of viridiflorene in tea tree oil was confirmed by a combination of Gas Chromatograms/MS and Kovat's Indices. A year later, in 1989, a Gas Chromatographic/MS was used to examine the chemical composition of lab-distilled oils. Only the leaves and the terminal twigs of the *Melaleuca alternifolia* were used. The compounds identified in this study can be seen listed as follows:

$\alpha$ -pinene (2.5%)	<i>trans</i> -piperitol (trace)
$\gamma$ -muurolene (trace)	terpinolene (3.2%)
$\alpha$ - $\rho$ -dimethyistylene (trace)	cubenol (0.1%)
globulol (0.2%)	methyl eugenol (trace)
ledol (trace)	$\beta$ -caryophyllene (0.1%)
viridiflorol (0.1%)	aromadendrene (1.4%)
rosifoliol (trace)	$\beta$ -gurjunene (0.1%)
spathulenol (trace)	$\beta$ -elemene (0.1%)
<i>cis</i> - $\rho$ -menth-2-en-1-ol (0.1%)	$\delta$ -cadinene (1.2%)
terpinen-4-ol (37.9%)	allo-aromadendrene (0.3%)
$\alpha$ -bulnesene (trace)	$\alpha$ -humulene (trace)
camphene (trace)	viridiflorene (1.0%)
$\alpha$ -thujene (0.9%)	$\alpha$ -terpineol (2.3%)
$\beta$ -pinene (0.3%)	$\alpha$ -muurolene (0.1%)
$\alpha$ -amorphene (trace)	<i>trans</i> - $\rho$ -menth-2-en-1-ol (0.2%)
$\rho$ -cymen-8-ol (trace)	palustrol (trace)
linalool (trace)	bicyclogermacrene (0.1%)
sabinene (0.2%)	$\rho$ -cymene (2.8%)
$\alpha$ -cubebene (trace)	myrcene (0.5%)
$\alpha$ -phellandrene (0.3%)	<i>trans</i> -sabinene hydrate (trace)
$\alpha$ -ylangene (trace)	<i>cis</i> -piperitol (trace)
1,4 -cineole (trace)	cadina-1,4-diene (0.1%)
<i>cis</i> -sabinene hydrate (trace)	$\alpha$ -terpinene (10.4%)
limonene (1.0%)	calamenene (0.4%)
$\beta$ -phellandrene (0.9%)	nerol (trace)
1,8-cineole (4.5%)	$\alpha$ -copaene (trace)
$\alpha$ -gurjunene (0.7%)	<i>trans</i> - $\beta$ -ocimene (trace)
$\gamma$ -terpinene (23.1%)	1,2,4- trihydroxy- $\rho$ -menthane (trace)
$\beta$ - <i>terpineol</i> (0.24%)	<i>l</i> - <i>terpineol</i> (trace)

## Those Amazing Tea Tree Oils

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Also found were 10> sesquiterpene hydrocarbons (0.2%), 4 oxygenated sesquiterpenes (0.1%), and 20> Unknowns (0.1%). The lab-distilled oil was slightly different to the commercially distilled oil. The commercial oil had more constituents namely, hexanol, allyl hexanoate, camphor and piperitone. The International Standard ISO 4730 (1996)

ISO 4730 sets a standard for fourteen components of tea tree - *Melaleuca* type oil.

	Minimum	Maximum
terpinolene	1.5	5.0
$\alpha$ -terpinene	5.0	13.0
$\gamma$ -terpinene	10.0	28.0
$\alpha$ -pinene	1.0	6.0
sabinene	trace	3.5
limonene	0.5	4.0
aromadendrene	trace	7.0
$\delta$ -cadinene	trace	8.0
$\rho$ -cymene	0.5	12.0
globulol	trace	3.0
viridiflorol	trace	1.5
*terpinen-4-ol	30.0	45.0
*1,8-cineole	1.9	15.0
$\alpha$ -terpineol	1.5	8.0
* <i>terpinen-4-ol (Superior Grade)</i>	37.0>	42.0
* <i>1,8-cineole (Superior Grade)</i>	2.1	5.0

## **Chapter 4: The Power and the Gory**

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The skin is the largest organ of the body and is responsible for some of its most complex functions, such as temperature control, sensation, protection, immunity, secretion, and excretion. It also has a role in the synthesis of vitamin D. No other organ is so exposed to infection, disease, pollution and injury, or can be inspected so readily. We can determine approximate age and observe the first signs of illness just by examining it. Within its complex structure there are two main parts, the epidermis (the thinner, topmost section) and the dermis, which is attached to the lower subcutaneous layer. Its blood vessels carry up to 10% of a resting person's blood flow. Within these layers are a multitude of sensory cells, skin cells, nerve endings, pores, sweat glands, oil glands, fibres, blood vessels, and hair roots. In an average healthy adult the skin varies from half a millimetre thick to about 4 millimetres in some places, such as soles of feet. It covers an area of two square metres and weighs around five kilograms.

It is now scientifically accepted that substances can effectively reach the bloodstream through the skin's layers, passing into the blood vessels housed in the dermis. Just as it can eliminate toxins and toxic substances, the skin can also absorb them. Nicotine (the nicotine patch), steroids, and hormones have been successfully introduced into the bloodstream by this 'transdermal' absorption route. In many respects it is a much safer way of introduction, the substances bypass the digestive system, and are less likely to cause the same problems that ingesting them would. The entry may not be as straightforward, but there are conditions that help to speed up the process. The smaller the molecular particles of a substance the more readily it will be absorbed. If a substance is in contact with the skin for any length of time, absorption is more likely to occur. The warmer the skin the more it will absorb, the pores open, glandular activity is increased, and the substance is transported through the sweat and oil glands. Also, there are certain inorganic chemicals designed to speed up absorption; i.e. specific face creams are chemically engineered for maximum absorption in the minimum of time. If the skin is covered after exposure then absorption is increased in two ways; the trapped heat can warm the area and by holding the substance against the surface, it extends the contact time; quite dangerous if toxic material is being handled. Various gases may gain entry through the skin by the respiratory process (the skin being a living, breathing organ). It has just been acknowledged that fumes emanating from newly laid carpets, and recently painted surfaces can be a risk for people who are susceptible to allergies.

There are also occasions when absorption might be impeded; the skin's natural exfoliation process can make absorption more difficult. A substance may evaporate or be washed away before entry can occur. There are some commercial preparations that include chemical binding agents, which are designed to stop or slow down access through the skin.

## Those Amazing Tea Tree Oils

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Under the right conditions virtually any small molecular substance that comes into contact with the skin has the potential to enter the bloodstream. The bloodstream is basically the body's 'river of life'. Blood is pumped around the circulatory system, feeding cells with oxygen, nutrients, and any substances that have been absorbed through the skin. Like any river, it can become polluted and feed the body with either life or death.

But why should we, as average individuals, be worried about transdermal absorption? ...

... Because we know that there are about two square metres where a foreign substance could possibly gain entry, and if we think of all the substances that come into contact with our skin it should be quite a serious cause of concern.

Antiseptics	Dyes	Solvents	Household Sprays
Shampoo	Make-up	Soap	Air Fresheners
Conditioner	Face Cream	Hair Spray	Bath/Shower Gel
Fly Spray	Perfumes	Moisturisers	Washing-up liquid
Polishes	Nail Varnish	Hand Creams	Cleaning Agents
Aerosols	Deodorants	Detergents	Nail Varnish Remover

All of the above and more are products that we may use during the course of a day. Now look at the 'ingredients' section on any of these products that you find in your home. Do you really want these substances in your bloodstream? Do you even know what some of them are?

Propylene glycol is usually added to moisturisers, which is commonly known as a type of "anti-freeze." Parabens, widely used as a preservative, mimic the effects of female hormones (not very good news for the male population) and have been implicated in breast cancer. Aluminium, in some form, is added to most antiperspirant deodorants. Scientists agree that there is a link to the symptoms of Alzheimer's disease and the absorption of aluminium; but it is still being absorbed into the bloodstream of anyone who uses these products. Many perfumes contain as much as 80% ethanol, a substance that reacts with the fatty layer of the skin, temporarily altering the surface and allowing absorption. Perfume can contain as many "Nature identical" chemicals as bubble bath, soaps and moisturisers. The more dubious essential oils can contain synthetic chemical constituents that try to mimic their natural counterparts, and they are not always displayed on the label.

The backs of the hands are particularly vulnerable because the skin is quite thin and there are many visible main veins, which could provide a quick, easy access into the bloodstream (a plus point for wearing undamaged rubber gloves when handling chemical cleaners, insecticides. and pesticides etc.)

## The Power and the Gory

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Every synthetic product that we use has the potential to increase the number of different inorganic chemicals circulating around our bodies. The one thing now recognised is that synergy does occur. Substances can work with one another to create a greater, or differing effect, other than if they were working completely alone. This could mean that the unknown cocktail of chemicals that combine within the bloodstream of each of us may have unforeseen consequences. Is it any wonder that mystery illnesses and allergies are on the increase?

More and more research is being completed on the implications of household pollutants, it is believed that some of these chemicals can cause memory loss and depression - surely this means that they are actually being absorbed into our brain cells. So what about all those chemicals that we put onto our skin everyday, is it possible that some of their ingredients could eventually be absorbed into our brain cells too? Does anyone know for sure when two substances combine and the synergy produces an entirely different reaction? Scientists may have tested the actual chemical for toxic absorption, but they could not have tested all the possible synergistic effects with all of the inorganic chemicals now available in our food, drink, medicine, cosmetics and in our environment too. Only we, the consumer, can do that during the course of a lifetime!

Because no one really knows enough about the consequences of all this, we could be facing a very major issue, even disaster, in future generations. Is this a time-bomb waiting to explode? We will have to wait and see, because at the moment, we are all part of one gigantic experiment. By turning our backs on organic, natural living, we are actually supporting this experiment. Only we have the power to change things, it seems no one else will do it for us.

For all you sceptics - try a simple well-known experiment for yourself: cut a garlic clove in half, rub the soles of your feet with both halves, now put your shoes and socks back on - in a few hours ask your partner if your breath smells - convinced?

With all the chemicals we encounter everyday we become more and more susceptible to allergies, including dermatitis and asthma. The popularity of tea tree oil will inevitably give rise to reports of toxicity. A letter written by C.F. Carson and T. V. Riley, from the microbiology department of the University of Western Australia, "Toxicity of the essential oil of the *Melaleuca alternifolia* or tea tree oil", 1995 was published in the Journal of Toxicology and Clinical Toxicology. Their comments pointed to the fact that there are some components of tea tree oil that are potential allergens. Indeed contact toxicity (allergic dermatitis, eczema etc.) has been reported in a few cases. There will always be a proportion of the population (and their pets)

## Those Amazing Tea Tree Oils

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who are allergic to a product, natural or otherwise, especially now when there seems to be a general rise in allergies.

There have been cases of poisoning: one man drank half a teacup of neat tea tree oil and required hospital treatment. In another case, a 60-year-old man ingested half a teaspoon of the oil and felt unwell, reporting the appearance of a 'dramatic rash'. During the last decade a few children have consumed tea tree oil, usually less than 10ml, and have had to be hospitalised, thank goodness there seems to have been no lasting damage. This is why it is important that a warning should be on the bottle to 'keep out of the reach of all children'. Oral ingestion is strictly not to be carried out in the home; a medical aromalogist must be consulted for information on the oral use (if any) of a select few essential oils.

Veterinary surgeons have reported some cases of poisoning symptoms, and allergic reactions in pets, (especially small, light haired, cats and dogs). There are cases of tea tree oil causing skin problems in grey horses that were being treated for sweet itch. It should not be used on rabbits, kittens or young puppies without veterinary advice. Unfortunately, most of these cases of contact dermatitis or pet poisonings do not state if the adverse reactions were caused by neat, undiluted oil or if the oil was actually *Melaleuca alternifolia*. It could have easily been caused by an oxidised *Melaleuca* type tea tree oil. They certainly do not state if the oil had been stored correctly or was inside its expiry date. It is also worth noting that veterinary grade oil can be the low grade *Melaleuca* type oil. Could this be the cause of some of the poisonings? It would be very wise to use the higher premium *Melaleuca alternifolia* grade, low cineole, oil at very low dilutions when treating pets. Conversely, there have been studies where dogs were treated with a tea tree cream to heal skin conditions. One such study in 2002, found that 82% of 53 dogs treated with a 10% topical tea tree cream, for four weeks, showed a marked improvement in localised dermatitis, unspecific eczema and skinfold pyoderma. Only 2 out of the 53 dogs had a relatively mild adverse reaction.

As long as certain guidelines are followed, I am convinced that we have a safe, valuable product that that will be of great help to the majority of us.

A patch test should always be initially performed. The direct use of neat, undiluted, tea tree oil should be kept to a minimum, and never used undiluted on animals, children, or the elderly. It may be acceptable on small areas of adult skin or nails, applied on a cotton wool bud, subject to a patch test.

The oil should be purchased from a reputable supplier and then stored correctly and used within the expiry date. Some people advocate keeping the bottle in a refrigerator when not in use.

## The Power and the Gory

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*Melaleuca alternifolia*, the cineole levels and terpinen-4-ol levels should be clearly displayed on the label, and a low <5% or a high <15% cineole oil used appropriately.

Always keep essential oils out of the reach of children. Tea tree oil in higher concentrations of 2%, over a larger area of skin, should not be used constantly for several weeks without an interval. The exception is use on warts, e and fungal nail infections, which need treatment with a high percentage or neat oil for at least six and sometimes up to twelve weeks.

Of course, there will always be those who do not wish to see the rise of a product that cannot be synthetically concocted and patented. Heaven forbid! if it actually works better, or as well as, a prescribed medicinal product. I am sure that quite a few research papers, and propaganda, will be funded in the area of toxicity, as the drug industry fight to abate the popularity of tea tree oil. If trials do isolate a component and it is tested on the skin it may well cause damage. What a godsend that Nature had the good sense not to isolate it in this way, but created a synergy of compounds to make a 'whole' healing substance. When you see the reports appearing just bear in mind that common table salt (*Sodium chloride*) has produced death and many instances of poisoning, not to mention a cause of several illnesses. Everything has its toxicity level, even water, if not used as it should be.

Tea tree oil is a safe, natural alternative, if used correctly; it can be utilised for medical applications, as an ingredient in toiletries, and in various household products. Chapter Seven - Home and Away Applications, is dedicated to those of you who would like to put aside the harsh chemicals in your utility cupboard and begin to use a more natural approach to household cleaning. It is also a good way of using out-of-date oils!

Diluted tea tree oil is an effective, penetrating germicide, and is usually absorbed within minutes. It contains safe, natural, constituents that help its passage through the dermal layers. It is a clinically proven bactericide and fungicide; it proficiently eradicates trapped bacteria that cause boils and abscesses etc. When applied, even in a greatly reduced dilution (lower than 0.25% in some cases), it is thought to exhibit cytoblastic properties and actively provoke irreparable damage to the wall of an invading germ cell. The germ then bursts open and dies, instead of going on to multiply and so cause infection and disease. It also seems to be quite potent in the fight against viral infections too.

But what are bacteria, fungi and viruses?...

## Those Amazing Tea Tree Oils

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### **BACTERIUM**

PLURAL - BACTERIA FROM THE GREEK: 'BAKTERION' (SMALL ROD OR STICK)

Bacterium is the common name for a vast group of one-celled microscopic organisms. A bacterium cell is the smallest, simplest structural unit of living tissue that is capable of functioning as an independent entity. They can exist in the hottest, coldest places on earth, in the deepest oceans, and in the almost airless reaches of the upper atmosphere.

Bacteria are found in the air, food, water, soil, organic matter, in our body and on our body. Some are harmful, but others we need for our very existence. The oldest sign of life on earth is a fossilised bacterial cell discovered in a rock in Africa. It is estimated to be over 3 billion years old.

Thirty trillion bacteria would only weigh 28gms. They are measured in microns: 0.001 micrometers = 0.00004".

Bacteria fall into two main groups, gram positive (B+) and gram negative (B-). Gram staining, a technique for identifying the bacteria was perfected by Hans Christian Gram in 1884. The bacteria were treated with a special dye and chemicals; they could then be categorised into the two different groups. Gram positive bacteria, which was deep violet in colour and was later found to be susceptible to penicillin. Gram negative bacteria, which would stain deep red and would be susceptible to other antibiotics, such as streptomycin. For many years how and why this staining actually worked remained a mystery. It is now known that Gram positive bacteria have a cell wall that takes up the deep violet colour. When a solvent is then added the gram negative bacteria, which has a cell wall and a membrane, loses the deep violet colour and takes up the red colour. It is interesting to note that tea tree oil can be effective against both types of bacteria.

### **WHAT ARE BACTERIA RESPONSIBLE FOR?**

SORE THROAT

BOILS

ABSCESSSES

DIPHTHERIA

WHOOPING COUGH

BUBONIC PLAGUE

FOOD POISONING

STOMACH ULCERS

ACNE

WOUND INFECTIONS

TUBERCULOSIS

PNEUMONIA

TYPHOID

DIGESTIVE DISORDERS

LEGIONNAIRES DISEASE

SALMONELLA POISONING

CHOLERA

Etc.

## The Power and the Gory

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### VIRUS

PLURAL - VIRUSES FROM THE LATIN: 'VIRUS' (POISON SLIME)

Discovered in 1952, viruses are sub-microscopic entities even smaller than bacteria, ranging from 10nm to 300nm. (One nm or nanometre is one thousand-millionth of a metre). The average virus needs a special electron microscope in order just to see it. Most viruses are pathogenic, they inject themselves into living cells, taking over the cell and multiplying rapidly. Their inability to multiply without a living cell meant that they were not classed as a living entity, but a process by which the cell mimics the mechanics of the invading virus.

What is now known is that a virus contains nucleic acid (DNA or RNA), it has a genome (a string of genes) and is encased in several layers of protective protein shell (capsid). It cannot live outside a cell and is transmitted from person to person through the air on vapour droplets in bodily secretions (coughs, sneezes, semen etc.) When the virus invades the host cell it can either lie dormant until conditions are right (as in the Herpes virus) or it can start to replicate immediately. Replication begins when the capsid starts to break down and the nucleic acid produces copies of itself from the raw materials in the host cell. Each one then grows its own capsid and the cell usually starts to die leaving the virus to quickly spread to other cells within the body, starting the whole process over again. Viruses also have been shown to cause certain cancers in animals whether they do in humans is not yet fully conclusive.

Most of the evidence that tea tree oil is actually anti-viral is from anecdotal sources. The most recent research into its anti-viral activity was completed at Liverpool John Moores University when a student found that it inhibited lesions caused by the tobacco mosaic virus in plants for at least 10 days.

### WHAT ARE VIRUSES RESPONSIBLE FOR?

WARTS	GERMAN MEASLES
SMALL POX	INFLUENZA
MEASLES	COMMON COLD
POLIO	HEPATITIS
RABIES	MUMPS
HERPES	SHINGLES
CHICKENPOX	AIDS
LASSA FEVER	T CELL LEUKAEMIA
COLD SORES	GLANDULAR FEVER
YELLOW FEVER	FOOT AND MOUTH
Etc.	

## Those Amazing Tea Tree Oils

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### **FUNGUS**

PLURAL - FUNGI FROM THE GREEK: 'SP(H)OGGOS' (SPONGE)

Fungi are a diverse group of organisms, they show characteristics of both lower plant life and lower animal life, but are not closely related to either. There are more than 100,000 different species of fungi known to man, and they come in many and varied forms such as; moulds, mildew, mushrooms, yeasts etc.

Parasitic Fungi feed on living plants, animals and decaying organic matter. *Candida albicans*, a yeast, causes many thrush infections both internally and externally, and is part of the diverse fungi family.

Fungi also give us food, antibiotics, vegetarian protein such as quorn, and a base for some vitamins and minerals. We need yeast for fermentation of alcohol, bread, cheese, soy sauce etc.

Tea Tree oil has been proven to inhibit fungal growth at just 0.25% in some cases.

### **WHAT ARE FUNGI RESPONSIBLE FOR?**

CANDIDA ALBICANS

VALLEY FEVER

THRUSH

BALANITIS\*

PARONYCHIA

TINEA INFECTIONS\*

Etc.

CRYPTOCOCCAL MENINGITIS

ATHLETE'S FOOT\*

RINGWORM\*

ONYCHOMYCOSIS

SHAVING RASH

DANDRUFF

Fungi can also be tumour inducing and cause respiratory diseases.

**PATHOGEN** FROM THE GREEK: PATHOS- (SUFFERING) + -GEN (THAT WHICH PRODUCES)

Pathogens are microorganisms that cause infectious diseases in humans and animal life. Especially a bacterium or fungus.

**PARASITE** FROM THE GREEK: PARASITOS - (FELLOW GUEST)

A creature that lives on or inside another living creature, i.e. fleas, worms and protozoa etc.

**PROTOZOA** FROM THE GREEK: PROTO- (THE EARLIEST FORM) -ZOA - (ANIMAL)

A single celled microscopic organism of the phylum or sub-kingdom protozoa. Diseases caused: Malaria, Trichomonal Vaginitis etc.

## The Power and the Gory

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**MICROORGANISMS** FROM THE GREEK: MIKROS (SMALL)

An animal or plant of microscopic or sub-microscopic size. Especially a bacterium or protozoan.

**MICROBE** MICRO- + GREEK: -BIOS (LIFE)

A microorganism. A minute life-form, usually causing disease (A germ).

**GERM** FROM LATIN: GERMEN- (OFFSHOOT), FOETUS

A microorganism - often pathogenic (A microbe).

**SEPTIC** FROM THE GREEK: SEPTIKOS (ROTTING)

Causing to putrefy, the activity of bacteria.

## Those Amazing Tea Tree Oils

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### ANTIMICROBIAL ACTIVITY (MICs)

As stated in Chapter 3: The Real Oil, tea tree oils can differ quite considerably in quality. The average good quality tea tree oil shows the following Minimum Inhibitory Concentrations (MIC), against most commonly encountered pathogenic Gram negative / Gram positive bacteria and fungi usually in the range of between 0.25-5.0% v/v.

NB: MICs are the lowest concentration that will inhibit the growth of a specified microorganism, but may not give a cure.

Several hundred in vitro tests have been conducted. In summary, it may be concluded that Tea Tree Oil of the *Melaleuca alternifolia* (<5% Cineole and 37% Terpinen-4-ol) is active against a wide range of microorganisms including the following:

#### GRAM POSITIVE BACTERIA

Enterococcus faecalis	0.5	
Listeria mono	0.75	
Micrococcus-luteus	0.75	
MRSA		1.6-5.0>
Staphylococcus aureus	0.25-1.6	
Staphylococcus epidermidis	0.5-2.5	
Streptococcus agalactiae		1.25
Streptococcus pneumoniae	0.25	
Strep. propionibacterium acnes	0.75	
Streptococcus pyogenes	0.5-1.0	

#### GRAM NEGATIVE BACTERIA

Citrobacter spp	0.5-1.0	
Escherichia coli	0.25	
Klebsiella pneumoniae	0.5	
Legionella spp		1.0
Proteus mirabilis	0.5-1.0	
Pseudomans aeruginosa		2.0-5.0>
Pseudomans fluorescens		5.0>
Shigella sonnei	0.15	
Vibrio furnissii	0.625	

#### FUNGI

Aspergillus flavus	0.25-0.75	
Aspergillus niger		1.0
Candida albicans	0.5-1.25	
Malassezia furfur	0.25	
Microsporum canis	0.5-1.0	
Microsporum gypsum	0.5-1.0	
Thermoactinomyces vulgaris		1.25
Trichophyton mentagrophytes	0.75>	
Trichophyton rubrum		1.0

## **BACTERIA & FUNGI - THE INFECTIONS THEY CAUSE.**

Organism	Type	Infection	Minimum TTO (MIC)
<i>Actinomyces israelii</i>	B+	Can inhabit human mouth, tonsils, and saliva. Can cause abscesses, usually in tooth socket after extraction.	0.5% (Anecdotal)
<i>Aspergillus niger</i>	F	Acquired through inhalation, can cause lung infections in mammals and birds. Sometimes on inside walls as black dots of mould. Can inhabit soil and cause respiratory disease in man.	0.25% - 1%
<i>Aspergillus flavis</i>		As above and produces a carcinogenic aflatoxin affecting cotton seed etc. causing cancer in some animals. From same fungi group as <i>penicillium spp.</i>	
<i>Bacillus cereus</i>	B+	Causes food poisoning with diarrhoea, found mainly on re-heated grains and other starches	0.5%
<i>Bacillus subtilis</i>		Isolated in lamb and chicken that have caused food poisoning (vomiting). Milk, vegetables fish etc. <i>Bacillus anthracis</i> (of the same family) causes Anthax.	
<i>Citrobacter spp.</i>	B-	Found in soil and water, urine, blood, wound swabs etc. An opportunistic pathogen, causing infection when conditions are right	0.5% - 1%
<i>Candida albicans</i>	F	Part of normal flora of throat, gut, skin, vagina, faeces. May invade any tissue or organ and produce disease. Common cause of contagious disease, candidiasis (thrush, vaginitis etc.). Also skin, nail infections etc. Predisposing conditions include: diabetes, malignancy, pregnancy, use of antibiotics, steroids, or cyto-toxic drugs. ( <i>C. albicans</i> is a yeast).	0.5% - 1.25%
<i>Corynebacterium spp.</i>	B+	Colonises mucus membranes. Causes infection when immune system deficient <i>C. diphtheriae</i> may cause diphtheria in the weak, young or elderly.	0.3>%
<i>Enterobacter aerogenes</i>	B-	Found in the small intestine, polluted land and water supplies. Isolated in hospitals and becoming a multi-resistant strain. Infects urinary and respiratory tract, wounds etc.	0.3%
<i>Enterococcus faecalis</i>	B+	Part of normal flora of the intestines but can cause disease on entering bloodstream.	0.5%

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Organism	Type	Infection	Minimum TTO (MIC)
<i>Escherichia coli</i> ( <i>E. Coli</i> )	B-	Part of intestinal flora. Most frequent cause of urinary tract infection and diarrhoea (bloody). May also cause appendicitis, pneumonia, cystitis, septicaemia, wound infections, abscesses etc. An out-break in 1997 Scotland proved fatal to some of the infected. Fecal-oral route (poor hygiene), infected foods indicated.	0.25%
<i>Klebsiella pneumonia</i>	B-	(Friedlanders bacillis) Infection can produce many diseases, but fatal pneumonia is most likely. Can produce tumour (type) growth in oral mucosa. Transmitted by community contact.	0.5%
<i>Legionella spp.</i>	B-	Outbreak of pneumonia in 1976 of the American Legion named this strain of (then unrelated) bacteria. Infected Air conditioners, cooling towers and municipal water. Causes respiratory disease, can be fatal.	1%
<i>Listeria mono</i>	B+	Affecting the sick and the weak often fatally, with sepsis, meningitis and sometimes abscesses. Food (meat, vegetables, milk) being the likely source, they multiply at low temperatures even in the refrigerator). Animal faeces can infect soil.	0.75%
<i>Malassezia furfur</i>	F	Fungal skin condition (Tinea versicolour)	0.25%
MRSA	B+	Methicillin resistant- <i>Staphylococcus aureus</i> . There is now increasing alarm amongst the medical profession about MRSA. It can be a killer, especially in hospitals where infection is easily passed from one person to another. Vancomycin the only 'antibiotic drug' left to inhibit MRSA is increasingly less effective. There are over 66 isolates of MRSA, which can infect wounds, ulcers etc. and can be present on the skin in great numbers.	1.6% - 5%
<i>Micrococcus-luteus</i>	B+	Spoilage of dairy products, found in dust, air & on body. Sometimes implicated in urinary infections.	0.75%
<i>Microsporium canis</i>	F	Topical fungal infection from pets to man, ringworm type lesions (Tinea captis/T. corporis) on scalp and skin. See Trichophyton species, also indicated in ringworm infections.	0.5% - 1%
<i>Microsporium gypseum</i>		Infection from soil or pets, multiple ringworm infections of the skin.	

## **BACTERIA & FUNGI - THE INFECTIONS THEY CAUSE.**

<b>Organism</b>	<b>Type</b>	<b>Infection</b>	<b>Minimum TTO (MIC)</b>
<i>Propionibacterium acnes</i>	B+	Part of normal skin and intestinal flora. Originally and commonly isolated from acne. Has been cultured from cases of conjunctivitis, septicaemia, endocarditis, lung infections, abscesses and wounds.	0.75%
<i>Proteus spp.</i>	B-	Natural intestinal flora, can become infectious in the sick and the young, and on entering wounds. Found also in soil, manure and polluted water. <i>P. Mirabilis</i> is often cause of bacterial kidney stones.	0.5%-1%
<i>Pseudomonas aeruginosa</i>	B-	World-wide distribution. Common inhabitant of the soil. Typically iridescent in appearance. Present as part of the normal intestinal and skin flora. The bacteria acts as a pathogen when out of its normal habitat, especially after surgery or catheter fitted. Often contaminates burns, sinuses and ulcers. Infections are more inclined to develop in patients who have taken antibiotics.	2>% - 5%
<i>Serratia marcescens</i>	B-	In soil and water. Formerly thought to be harmless, but may produce serious pulmonary infection septicaemia, urinary tract infections, post-operative wound infections, sinusitis, allergic reactions, abscesses etc. Can be spread by skin contact in hospitals if hands are not washed between patients.	0.3%
<i>Shigella sonnei</i>	B-	Causes dysentery, usually only infects young primates. Transmitted by fecal -oral route. Particular risk to travellers going to under-developed countries.	0.15% - 0.5%
<i>Staphylococcus aureus</i>	B+	Characteristically produces pimples, abscesses or boils. Also the cause of carbuncles, impetigo, wound infections, food poisoning, Toxic Shock Syndrome etc. More than 66 resistant strains now exist see MRSA. It can be transmitted by skin or surface contact.	0.25% -1.6%
<i>Staphylococcus Epidermidis</i>		Normally present on the body usually friendly but can cause skin and wound infections.	0.5>%
<i>Streptococcus agalactiae</i> (Group B)	B+	Neonatal meningitis, sepsis and infection. Present in humans and cattle. All Strep. bacteria can be transmitted in respiratory secretions and by contact with carriers.	1.25%

## Those Amazing Tea Tree Oils

Organism	Type	Infection	Minimum TTO (MIC)
<i>Streptococcus Pneumoniae</i> (Group A)	B+	A normal bacterium in respiratory tract, can invade and cause pneumonia and meningitis. Cases peak in winter especially in the sick and weak.	0.25%
<i>Streptococcus pyogenes</i> (Group A)	B+	Most common species of the strep. genus. Capable of producing innumerable infections in humans: scarlet fever, rheumatic fever, infections of throat, ear, and sinuses, tonsillitis, abscesses, Ludwig's angina impetigo, pneumonia, septicaemia. Invasive infection can result in Necrotizing fasciitis (flesh eating), Strep. Toxic Shock Like Syndrome (TSLs) etc.	0.5%-1%
Thermoactinomyces vulgaris	F	Farmers lung disease, breathing in spores from mouldy grain and hay. (Or from unhygienic air conditioning systems).	1.25%
<i>Trichophyton mentogrophytes</i>	F	Tinea infections - Athlete's foot etc. (pets and man). Enters through skin abrasions, etc.	0.75%
<i>Trichophyton Rubrum</i>		Filamentous fungi, the principal cause of infection to the skin, nail and hair. See <i>Microsporium Spp</i> another cause of Tinea.	1%
<i>Trichomonas vaginalis</i>	P	A protozoan of the species group <i>Flagellates</i> (Trypanosomes), which causes vaginitis.	0.5%-1%
<i>Vibrio furnissi</i>	B-	Diarrhoea, abdominal cramps, nausea Infection by fecal-oral route. <i>Vibrio Cholerae</i> is of the same family and causes cholera.	0.625%

NB: Minimum Inhibitory Concentrations (MICS) can vary from batch to batch of Tea Tree oil, and usually varies from brand to brand, the above should be used as a guideline only.

### Key

- B+ = Bacteria (Gram positive)
- B- = Bacteria (Gram negative)
- F = Fungi
- P = Protozoa

## Chapter 5: ...And There Are More Tea Trees

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### *Melaleuca* spp.

Most of the *Melaleuca* tea trees have the same history. Captain James Cook, on his Antipodean voyages, named these aromatic evergreen trees as 'Tea Trees'. Although the tea trees do not all come from the same genera, they are from the same botanical family, *Myrtaceae*, and can share similar constituents and therapeutic properties. The *Melaleuca* tea trees have long 'linear' leaves, which contain the aromatic oil bearing sacs, and an attractive 'bottle brush' type flower. The seeds are small woody spherical capsules. The leaves release a wonderful camphor like aroma when crushed between the fingers. The leaves can also be dried and used in medicinal tea blends. A *Melaleuca* tree can grow up to 30 metres in height, the *M. alternifolia* reaches approx. 5-8m, the *M. viridiflora* reaches 9m, the *M. quinquenervia* reaches 18m, and the *M. leucadendron* reaches 21m. The distillation method of all the *Melaleuca* is by steam, from leaves and twigs.

Other tea trees from the *Melaleuca* genus are: *M. bracteata* var. *muell*, The 'Black' tea tree, which was used for inhalation and muscle rubs and it has also been noted that it may improve the elasticity of the skin, so is sought after as an ingredient in night creams. *M. hypericifolia*, The 'Bottlebrush' Tree, is rich in amino acids, the essential oil of this tree is also be used in cosmetics and hygiene products. *M. uncinata* The 'Broom Brush' Tea Tree, also known as 'Broom Honey-Myrtle', has leaves that are rich in mineral salts and essential oils. The astringency of the tannins may be useful for acne treatments and shampoos for greasy hair. *M. symphyocarp*, the 'Liniment' tree is rich in essential oils, carotenoids and flavonoids, and as the name suggests it can be used for liniments and even scalp rubs. A tree that is currently causing a stir is *Melaleuca ericifolia* Smith (Rosalina oil) from Northern NSW. It is believed to be anti-infectious and is likely to be used as an expectorant. The cineole content is in the range of 23%, and it has a pleasant odour. Although there is still a lot of research to be done, it is likely to be used to treat boils, acne, colds, fungal and herpes infections.

Similar tea trees that can be used in the production of a *Melaleuca* oil are: *M. linariifolia*, *M. dissitiflora*, *M. decussata*, *M. thymifolia*, *M. erucifolia*, etc. Some of these oils have been mixed with Niaouli, by less scrupulous companies. Again, care should be taken not to buy a 'Melaleuca oil' or a 'tea tree oil' without its botanical name displayed on the label, as with all essential oils, if the botanical name is not displayed treat with caution.

The most famous tea trees, whose oils were widely confused with *Melaleuca alternifolia*, are the trees: *Melaleuca leucadendron* var. *cajuputi* (Cajuput) and the 'Cajuput type' trees *Melaleuca quinquenervia* and *M. viridiflora* (Niaouli).

## Those Amazing Tea Tree Oils

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### NIAOULI OIL

The 'Broad Leaf Paperbark' Tree *Melaleuca quinquenervia*, and *Melaleuca viridiflora*. are also known as the 'Paperbark' Trees, 'Punk' Trees, 'Cajeput Type' Trees, and the 'White Bottlebrush' Trees. They are grown in many tropical and sub-tropical areas including: New Caledonia, Tasmania, Madagascar, and parts of mainland Europe. In Florida and Hawaii they were introduced to the wetlands as semi-aquatic plants. The seeds were imported from Australia to the coastal regions in the early part of the 20<sup>th</sup> Century. Unfortunately, the oil seems to be of a lower quality, and the trees have literally 'taken over' the wetlands, growing and multiplying at an alarming rate, so much so that they are now endangering many of the rarer indigenous plants. The trees survive and indeed relish the forest fires, whilst the leaves and terminal branches perish, the lateral buds sprout within a few weeks. It has been observed that the actual burning of the trees releases millions of active seeds. Unfortunately, the *Melaleuca* forests are virtually impassable and not a desirable habitat for most of the North American flora and fauna. The call for a biological control is 'growing', nearly as rapidly as the trees. However, hope is on the horizon, the mulched bark is being studied for use as a soil conditioner, and growing medium for plants, rather like coir is used, so perhaps a valuable industry will emerge after all.

Niaouli, formerly known as Gomenol (from the area it originated in New Caledonia), is used as a strong antiseptic especially of the urinary system. The high cineole content (<35%-60>% depending on where grown) is subject to oxidation, suggesting that some people may find it a skin irritant, if used in a high concentration. It is most effective in rheumatic or arthritic preparations because of its anti-inflammatory and analgesic properties, and can be used as an inhalant for the respiratory system. Scientific research in France suggests that it has strong anti-viral properties. Niaouli is also used in commercial veterinary products. Unfortunately, Niaouli, like many essential oils, has been subject to adulteration, and it is again important to make sure of your supplier before purchasing. Only purified Niaouli oil should be used for anti-catarrhal applications or (diluted) on broken skin.

Main therapeutic properties include: analgesic, anti-bacterial, anti-catarrhal, anti-infectious, anti-inflammatory, anti-parasitic, anti-rheumatic, antiseptic, anti-viral, expectorant, and may exhibit some hormonal activity.

The main constituents include:

Hydrocarbons (*monoterpenes* <18%, *sesquiterpenes* <5%), alcohols (*monoterpenols* <15%, *sesquiterpenols* <25%), aldehydes 1%, oxides 30%-65%. And other sulphur containing components.

### CAJUPUT OIL

The 'Pale Bark' Tea Tree, 'Swamp Paperbark' Tree or 'White Wood' Tree, *Melaleuca Leucadendron var. cajuputi*, is thought to originate from Malaysia and Indonesia, but they are also found indigenous in other parts of Asia and tropical Australia. Cajuput or cajeput (as it is sometimes spelt) has been used in Europe since the Dutch introduced it in the Seventeenth Century. It was a remedy for bronchial problems, colds, flu, and chronic rheumatism; it is also a useful sudorific, which means that it induces sweating. The cineole content being much higher (<50%-75>%) than that of *M. alternifolia* suggests that it should not be used neat on the skin. However, it is a useful ingredient in rheumatic preparations, because it is a highly penetrative analgesic, and it can also be used as an inhalant (it is an ingredient of Olbas oil™) and is similar to eucalyptus oil in aroma. It should not be taken internally.

There was no sensitisation or irritation at a 4% dilution when tested on humans (Opdyke 1976).

Main therapeutic properties include: analgesic, anti-bacterial, anti-infectious, anti-neuralgic, antiseptic, anti-spasmodic, decongestant, expectorant, sudorific.

The Main Constituents include: Hydrocarbons (*monoterpenes* <48%, *sesquiterpenes* <8%), alcohols (*monoterpenols* <8%, *sesquiterpenols* <5%) aldehydes <3%, oxides 50% -80%, Esters <5%

### *Leptospermum spp.*

### THE NEW ZEALAND TEA TREES

The 'tea trees' from New Zealand are from the same family *Myrtaceae*, but are from the genus *Leptospermum*. Although the Maori people have used Manuka and Kanuka medicinally for centuries, the oils are not well known outside New Zealand. It was not until the late eighties that full scale clinical testing was introduced. Even though it was known for decades that the Tohunga (the Maori doctor) successfully treated urinary tract infections, diarrhoea, colds, and fungal infections with extracts and teas decocted from the leaves. Again, it is to our benefit that this valuable knowledge was kept and passed on from one generation to the next, and interestingly it is still used by the Maori people today. Manuka and Kanuka are also said to have anti-anxiety properties and indeed the translation of Manukanuka is 'anxiety and nervousness.'

## Those Amazing Tea Tree Oils

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### MANUKA OIL (Tairawhiti Manuka)

*Leptospermum scoparium*, still grows wild and is harvested from the rugged and remote East Cape area. Although it grows in other areas, the trees from the East Cape give a more anti-microbial activity. Manuka oil has a pleasant, heavier, medicinal, balsamic (more earthy) aroma than *Melaleuca* tea tree oil, and has a more complex consistency. The appearance is of a clear, yellow to brownish liquid, which is thicker and not as mobile as *Melaleuca alternifolia*. It is steam-distilled from the combined, leaves, flowers, and small terminal branches. The distillation time is considerably longer to 'capture' all the constituents of the oil and can take at least ten hours. Following distillation the spent matter can be composted and used as an organic insecticidal mulch for agricultural industries.

East Cape Manuka oil, has shown to be active against 39 separate pathogenic microorganisms in vitro. And is at least 20 times stronger than the oil of *Melaleuca alternifolia* against Gram positive bacteria, but not quite so good against Gram negative bacteria. Where Manuka shines is in its results against *Tinea* fungal infections (Athlete's foot, Ringworm etc.) In addition, the trials against strains of MRSA suggest that it may have potential in combating this potentially fatal infection. It has passed conformity and toxicity tests in France (1992), and has been used internally (under strict medical supervision), so a low toxicity is suggested. It also has a low irritancy rating so could probably be better tolerated than *M. alternifolia* by people with sensitive skins and by animals. It must be stressed that the leptospermone content of 'therapeutic' Manuka oil should be at least 7% or more. Obviously further tests need to be carried out, but Manuka oil seems to have a very promising future in the cosmetic, pharmaceutical, and veterinary industries. Like the *Melaleuca alternifolia* the future of the oil of Manuka is in our hands....

The Manuka trees tend to be shrubby, and usually grow to about two metres in height, sometimes more. The leaves vary in size and shape, from elliptical, lanceolate (pointed like a lance head) to obovate (egg shaped but with the narrow end next to the stem). Sustainable harvesting is practised in wild forestry areas, without the aid of chemical fertilisers or pesticides. Like the *Melaleuca* species, oil production does not kill the tree. The leaves, terminal twigs, buds and flowers, are cut annually with 'mechanical hedge trimmers' so that the new growth can quickly regenerate. Manuka plantations are currently being set up to meet the ever-growing demand for this valuable oil. The flowers can range from white, pink to red and usually have single petals. The Manuka trees are found in Australia (New South Wales and Victoria regions), Tasmania, and other parts of New Zealand. Even so there are only about fifteen varieties that we know of that yields essential oil. The wood of

## ... And There are More Tea Trees

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the Manuka is hard (slow burning) and red, hence its nickname 'Red Manuka', and is used to make handles for tools, fencing stakes, firewood, etc. Up until the oil was 'clinically' discovered wild Manuka trees were classed as an invasive species and a great nuisance.

The main constituents include: hydrocarbons monoterpenes, oxides, terpene alcohol, and esters. The tri-ketones: leptospermone 7%-15%>, isoleptospermone 5%, and flavesone 5%> are present in the East Cape, Ngati-porou chemotype and contribute to its unique properties. The current chromatographic analysis of East Cape Manuka shows around 150 different constituents.

The main therapeutic properties include: analgesic, anti-bacterial, anti-fungal, anti-inflammatory, anti-microbial, anti-parasitic, antiseptic, anti-viral, anti-zytomic, some say it has aphrodisiac properties, deodorising, expectorant, immune stimulant, insecticidal, nervine, sudorific, sedative.

### AND IT IS NOT ONLY THE OIL THAT IS USED:

\*The distillation water is used as a topical antiseptic.

\*Pia Manuka, an emollient white gum extracted from the Manuka tree, is used for burns, scalp conditions and as an expectorant.

\*Seed capsules were chewed or boiled and the resulting liquid used for diarrhoea and dysentery. The liquid was also used for bruises and inflammation.

\*A decoction of the leaves is used as an antiseptic both internally and externally.

\*A honey made by bees feeding on the flowers of the *Leptospermum scoparium* has caused quite a stir in New Zealand. Scientific tests, carried out at The University of Waikato, are very promising; the honey seems to exhibit a high anti-microbial activity and has applications for surgical procedures (to reduce infection and scarring), stomach ulcers, irritable bowel syndrome, ulcerative colitis, urinary tract infections etc.

### KANUKA OIL

*Kunzea ericoides* (formerly known as *Leptospermum ericoides*) is distilled in the same way as Manuka oil, and has a pleasant spicy, medicinal aroma, not as heavy as Manuka, but not as light as *M. alternifolia* tea tree oil; the consistency also mirrors this analogy. It is similar, if not quite so active, to the tea tree oil *Melaleuca alternifolia* in its anti-microbial activity. The main virtues of Kanuka oil are that it has very good analgesic (pain killing) and skin penetration properties, especially beneficial for arthritic and rheumatic conditions. Kanuka also seems to have a promising future in the industries.

## Those Amazing Tea Tree Oils

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The Kanuka tree is very similar to the Manuka in growth habit and appearance, and is often referred to as the 'White Manuka' tree. The oils also have similar constituents, but kanuka is higher in monoterpenes and lower in tri-ketones.

Essential Oils can also be distilled from other members of the *Leptospermum* family: *Leptospermum petersonii* (sometimes now referred to as *Melaleuca petersonii*) also known as the 'Lemon Scented' Tea Tree is used as 'Citral' (not to be confused with Citronella from the *Cymbopogon* genus of grasses), which is commonly available throughout Australia and New Zealand. *Leptospermum citratum*, which grows in the New South Wales area, also yields an essential oil. Other *Leptospermum* varieties include: *L. coriaceum*, *L. fastigiatum*, *L. morrisonii*, *L. nitens*.

All of the tea trees have a unique blend of therapeutic qualities. It would be interesting to see if they could be blended to produce an oil with even more potent healing capabilities ... Perhaps one day!

### ***Eucalyptus spp.***

Captain Cook also referred to the Eucalyptus genera as 'tea trees', included in these are: *Eucalyptus globulus*, *E. smithii*, *E. polybractea*, *E. radiata*, *E. dives*, *E. citriodora*, etc. and they are also known as gum trees. It is the long ovate leaves of the Eucalypti that contain the essential oil sacs, but the leaves and terminal twigs are distilled together. In Australia, steam distillation of the oil began around the middle of the nineteenth century, and the first medical trials were around twenty years later in Germany. There are over 250 constituents including cineole (65% to 90% depending on the specific individual). This suggests that it should not be used on the skin in high concentrations, unless under medical supervision. Eucalyptus oil is generally included in rheumatic embrocation, cough medicine, cold & flu decongestants (respiratory), nasal decongestants, medicinal skin ointments, insecticidal applications, lozenges etc. and it can be used in the home for inhalations and mixed with a carrier for rheumatic rubs etc.

There are over 600 varieties of Eucalyptus trees all originating from Australia. They have been successfully transplanted to subtropical and tropical areas around the globe and these areas also supply the essential oil, including: Asia, North Africa, and Central America etc.

*Eucalyptus globulus* or 'Tasmanian Blue Gum' is the oil that has been the most popular in aromatherapy for home use. *Eucalyptus smithii* or 'Gully

## **... And There are More Tea Trees**

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Gum' is one of the more gentle of the Eucalyptus oils for use, once diluted, on the skin.

The principle constituents are: oxides, hydrocarbons, alcohols, aldehydes, ketones, and esters.

The main properties include: anti-bacterial, anti-catarrhal, anti-fungal, anti-infectious, anti-inflammatory, antiseptic, anti-viral, balsamic, decongestant, expectorant, insect repellent, and rubefacient.

Contraindications:

- Eucalyptus oils should not be used for babies or younger children
- Death has been reported from ingesting as little as 4ml
- *Eucalyptus smithii* may be an irritant if used in high concentrations. Up to 10% dilution for use on the skin of adults is suggested as safe (Opdyke 1975).

## Those Amazing Tea Tree Oils

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### COMPARISON TABLE

Based on a table of Australian Essential oils, published in "Perfumer and Flavorist" Vol. 4 April/May 1979.

Microbes: -	1	2	3	4	5
Oils:					
<i>Melaleuca alternifolia</i>	0.5%	0.25%		0.04%	0.0156%
<i>Melaleuca quinquenervia</i>	0.25%	0.125%	4 %	0.02%	0.0078%
<i>Melaleuca viridiflora</i>	0.5%	4 > %	4 %	4 %	1 %
<i>Eucalyptus citriodora</i>	0.25%	0.5%	4 %	0.0625%	0.0625%
<i>Eucalyptus dives</i>	0.25%	0.125%	4 %	0.04%	0.0312%
<i>Eucalyptus fruticetorum</i>	1 %	0.5%	4 %	0.125%	1 %
<i>Eucalyptus radiata</i>	1 %	0.5%	1 %	0.0625%	0.5%
<i>Leptospermum scoparium</i>	0.04%	2.5%	2.5%	0.625%	1.25 > %
<i>Leptospermum ericoides</i>	1.25%	5 %	2.5%	2.5%	1.25 > %

The results are given by the % range of minimum inhibitory concentration- (MIC).

NB: 1000 parts per million = 0.1%

100 parts per million = 0.01%

Microbe Table: 1= Staphylococcus Aureus ATCC 6538  
 2= Escherichia Coli ATCC 10536  
 3= Pseudomonas Aeruginosa NCTC 1999  
 4= Candida Albicans  
 5= Aspergillus Niger

## Chapter 6: Compatibles & Carriers

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### THE COMPATIBLE OILS

Within this book we use several of the compatible essential oils that will mix with tea tree oils to enhance the properties, and also to improve the aroma.

#### **CITRONELLA OIL** (*Cymbopogon nardus*)

The leaves and the oil of the Citronella grass have been used medicinally in Eastern cultures for many centuries. Its main use in the home is as an insecticide. Citronella oil is steam distilled from the fresh, semi-dried or dried citronella grass. It is a pale to dark yellow oil with a fresh citrus (slightly grassy) aroma. The main Citronella producers are Java (which is highly regarded in perfumery) and Sri Lanka.

As with all essential oils, they should be kept out of the reach of children. Citronella oil has been implicated in the death of a 21-month-old child, who drank 15ml of the oil. The use on the skin is quite safe, but the oil may cause a dermatitis type rash in susceptible people, if used in a high concentration, especially if the skin is immediately exposed to strong sunlight. It may also cause a reaction in some caged birds if used in an aromatherapy burner or sprayed in the same room as the cage.

Main Properties: antiseptic, antispasmodic, anti-bacterial, astringent, deodorising, detoxifying, insecticidal, etc.

Main Uses: insecticide, rheumatic rubs (especially with eucalyptus oil), skincare, etc.

Main Constituents: aldehydes <55%, alcohols <45%, terpenes <10% esters <1% etc. (these can vary depending on where grown).

#### **LAVENDER OIL** (*Lavandula angustifolia*)

Lavender oil is mainly produced from the steam distillation of the flowering tips; oil distilled from the stalks is not so highly regarded.

An evergreen shrub native to southern Europe, the essential oil of lavender is mainly produced in France, Spain, Bulgaria, and England. Lavender has been used throughout history both as a medicinal plant and as a culinary herb. The semi-dried herb was strewn onto floors to fragrance medieval homes, and as stuffing for pillows. The oil varies in colour from mellow yellow to a greenish yellow and is highly aromatic. The constituents depend on the climate, soil and altitude at which it was grown, the French Lavender oil has been the most highly regarded and has a high content of linalyl acetate, which gives it its sweet, fruity note and anti-bacterial properties. Although it is one of the safest oils to use, some people may find that using the neat oil on the

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skin, over a period of time, causes contact eczema until usage is discontinued. For this reason it is used in the home diluted with a carrier oil for skincare purposes or in an aromatherapy burner etc. French pharmacopeial grade lavender oil must contain 25–45% linalyl acetate, 25–38% linalool, 0.1–0.5% limonene, 0.3–1.5% 1,8-cineole, 0.2–0.5% camphor, and 0.3–1.0% *α*-terpineol (DAB 1997; DAC, 1986; Ph.Fr.X., 1990; Wichtl and Bisset, 1994).

Main Properties: analgesic, antibacterial, anti-fungal, anti-inflammatory, anti-septic, anti-spasmodic, calming, sedative (in small doses), etc.

Main Uses: aromatherapy, soothes burns, headaches, migraine, some cases of eczema, insect bites, bacterial infections, insomnia, etc.

Main Constituents: (approximate percentages)

Esters (including linalyl acetate) <55%, alcohols: <40%, hydrocarbons: <8%, ketones <5%, oxides <3%, aldehydes <3%, lactones - trace, coumarins - trace etc.

### LEMON OIL (*Citrus limonum*)

Lemon oil is distilled or expressed from the zest of lemons. Distilled oils are usually non-phototoxic, but expressed oils are, they should not be used within two hours of exposing skin to direct sunlight. Lemon oil should always be diluted for home use, to not more than 2% dilution (1-2 drops in 5ml carrier), or sprinkle a few drops onto an aromatherapy burner. Care must be taken with all citrus oils, they must be stored in a cool, dark place and used within 6 months of purchase, or they are likely to cause local irritation to skin cells. The main lemon producers are Israel, Florida, Portugal, California, and Italy.

Main Properties: anti-bacterial, anti-coagulant, anti-infectious, anti-inflammatory, anti-fungal, anti-melanistic, anti-viral, astringent, detoxifying etc.

Main Uses: aromatherapy, nausea, antiseptic (atomiser), brown spots on skin, poor circulation, cellulite, etc.

Main Constituents: hydrocarbons: 85%-95%, alcohols <3%, aldehydes <4%, esters <2%, coumarins <2%, etc.

### PEPPERMINT OIL (*Mentha piperita*)

Peppermint oils have been used for centuries in China and Japan. The oil is distilled from the fresh leaves and flowers, and has a strong, cool aroma. It is so refreshing that it may induce insomnia if used late at night. It should not be used neat for direct use on the skin or in the bath. A dilution of around <1% is usually all that is needed for home use and is ideal for hot sweaty feet or added to a neutral shower gel. Peppermint oil may affect a homeopathic

## Compatibles & Carriers

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remedy, so always check with your homeopath to see if there is any contraindication with existing medication. Peppermint oil should not be used on babies or young children even in a low dilution, and it is advisable to seek the advice of an aromatherapist before using it in an aromatherapy burner if there are babies or young children in the household.

### **The Herb is cultivated for its oil in China, Europe, and America.**

Main Properties: analgesic, anti-bacterial, anti-fungal, anti-infectious, anti-inflammatory, anti-pyretic, anti-spasmodic, anti-viral, expectorant, insect repellent etc.

Main Uses: neuralgia, muscle pain, travel sickness, nausea, cooling shower gel, cooling and soothing foot lotion, headaches and as an inhalant etc.

Main Constituents: hydrocarbons <20%, alcohols <50%, ketones <36%, oxides <10%, esters <10% etc.

### **SANDALWOOD (*Santalum album*)**

One of the oldest known oils available, it is used in Asia and in Chinese medicine. The oil is distilled from mature sandalwood trees; it can come from the roots and the heartwood of the trunk.

The oil is steam or water distilled and is a pale yellow viscous liquid. The aroma should be sweet, and softly woody. It is used in soaps, perfume, cosmetics etc. It has very good effects on urinary tract infections, especially when mixed with Niaouli. It can be used in the home safely and usually up to a 10% dilution, subject to a patch test.

The sandalwood trees are now cultivated in India, Malaysia, Sri Lanka, and Indonesia. East Indian sandalwood is the most prized.

Main Properties: anti-infectious, aphrodisiac, astringent, moisturising, nervine, Useful for meditating etc.

Main Uses: Urinary tract infections, insomnia, skincare, stress, etc.

Main Constituents: hydrocarbons <15%, alcohols <92%, aldehydes <1%, etc.

## **CARRIERS**

Water-soluble gels and carrier oils are perfect for diluting essential oils, which are very concentrated plant extracts; they need to be diluted for direct use on the skin. It is roughly calculated that if you mix 1 part essential oil to 99 parts of carrier it is approximately the natural strength of the plant (1 drop on a 5ml teaspoon of carrier), although this may not work with all plants and carriers. Mixing them with ordinary water will not work successfully,

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because oil and water will not mix properly, into a solution, without an emulsifier. Sometimes it may be stated: mix 1-2 drops with salt water to form a gargle or skin wash, this is okay for the specific purpose, but the water needs to be agitated frequently to disperse the oil. Essential oil and water in an atomiser is usually used to fragrance or disinfect a room, or it can be used to spray antiseptic oils and water onto sunburn, wounds, *Herpes* blisters or minor burns etc. again frequent agitation or stirring is needed.

**Water Soluble Gel:** can be an effective carrier for some applications. If the gel is mixed thoroughly with the oil it turns a whitish opaque colour, this is because the oil is actually held in suspension. If the gel also contains emulsifiers, the oil will mix more effectively with the gel.

**Honey:** can sometimes be used as a carrier, it should be warmed slightly, then add <2% of appropriate essential oil and mix until cool. Apply to healing wounds to prevent scarring or minor burns, sunburn etc.

**Glycerine USP:** Vegetable glycerine is obtained from processing palm, coconut and other vegetable oils. It is clear, colourless and odourless with a very sweet taste. Natural emollient properties make it ideal for use on the skin and it is often used in commercial medications, cosmetics, toothpastes, toiletries, herbal remedies, confectionaries, and other household items. It has a shelf life of up to 2 years.

NB: glycerine, sometimes known as glycerol, can also be obtained from animal sources and as a cheap by-product of the petrochemical industry.

**Glycerine Ointment:** can easily be made by combining 2 parts glycerine, and 1 part each of melted cocoa butter and coconut oil. Essential oils can be mixed with the melted and cooled coconut oil. Stir or whisk ointment, over a basin of ice-cold water, until set. NB: This ointment is quite oily, and melts at body heat. Only a small amount is needed.

NB: Glycerine ointment can be used as a salve, after sun balm, nappy cream, chapped skin cream, burn ointment (with lavender), or even on the hair as a hair masque for very dry or greying hair.

**Petroleum Jelly:** is not usually recommended by aromatherapists, but some people do prefer to mix their own 'ointment'. Place 2 teaspoons of the jelly into a heatproof glass jar and 'sit' the jar in a bowl of hot water to melt. Carefully take the jar from the water and stir in up to 4 drops of an appropriate essential oil. Stir until cool and store in an airtight, dark glass jar, in a cool dark place for not more than 3 months. Un-fractionated coconut oil can make a natural 'ointment'.

## Carriers

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**Proprietary Brand Toiletries:** any neutral (non-perfumed) brand of lotion, cream, shampoo, conditioner etc., can act as a carrier for essential oils. , Add 1-2 drops of the appropriate essential oil to a 5ml teaspoon of liquid, mix well and use, or add 1ml-2ml to 100ml of product and shake the bottle very well. Sometimes the oil will 'thin' the consistency of the mixture, just add a few pinches of salt and it should thicken up again. Carrier oil can also be added to make the product more suitable for dry hair or skin.

**Sea or Rock Salt:** essential oil can be first added to sea or rock salt and then added to bathwater, bidet water or dissolved into warm water as an antiseptic gargle or first aid wash. You can also add a dessertspoon of sea or rock salt to a small, sterilised glass jar, sprinkle on 1-2 drops of appropriate essential oil and use it as an inhaler / decongestant by sniffing the contents as necessary. Renew every 24 hours.

### CARRIER OILS

Rich in therapeutic compounds, herbal oils have been applied to our bodies for a multitude of reasons for the past several hundred centuries, by many cultures all around the world. They are either pressed to release the full-bodied oil or macerated in another oil if the plant is not rich in its own oils. Calendula, comfrey and St. John's Wort oils are classic examples of macerated oils. Both pressed and macerated oils can be used as carrier oils.

Carrier oils have their own unique properties that can enhance the use of essential oils. Some carrier oils have a high viscosity and will 'sit' on the skin longer, whilst others with a low viscosity will sink into the skin more rapidly. Baby oil (mineral oil), which is a by-product of the petrochemical industry should not be used in aromatherapy. It may be useful mixed with essential oils to form an insect repellent barrier on the surface of the skin.

If the molecular weight of an oil exceeds 500, it is unlikely to be useful in an aromatherapy 'treatment' that relies on skin penetration. Essential oils usually have a weight around 230 and can be absorbed in about 5-10 minutes. Carrier oils should also be patch tested as some people may experience an adverse reaction whilst using specific oils, such as castor, soya or nut oils.

### The 'Lighter' Carrier Oils

These oils are more suitable to use when penetration of the oil is needed

#### **Apricot Kernel Oil** (*Prunus armeniaca*)

Rich in essential fatty acids (EFAs), oleic acid, linoleic acid, and palmitic acid, Apricot Kernel oil has moisturising, revitalising and nourishing properties. It is excellent for the skin of the more mature, or those with dry skin. Characteristic: odourless and pale.

## Those Amazing Tea Tree Oils

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### **Blackcurrant Seed Oil** (*Ribes nigrum*)

Blackcurrant seed oil is high in linoleic acid, GLA (Gamma-linolenic acid) and oleic acid. It is ideal for use on the face, anti-ageing, nail conditioning, nourishing and revitalising. It is particularly good for dry, sensitive, damaged and sunburnt skin. It helps to maintain skin elasticity. Can be used as a substitute to Evening Primrose oil. Specific aroma, clear yellow in colour.

### **Coconut Oil** (*Cocos nucifera*)

Fractionated Coconut oil is not always liked by aromatherapists because it is refined and just a fraction of the whole oil is used. There are some good points though, it is hypo-allergenic, compatible with the skin and rarely causes problems. It can be used for young children or nappy rash in babies (subject to a patch test). Also used in bath oils and mixed with heavier oils to 'lighten' the texture. A good mix use as a carrier with essential oils for acne is 90% coconut oil and 10% Jojoba.

**Coconut Oil (Un-fractionated):** also known as whole or hard coconut oil, is the perfect nourishing and moisturising oil. This unique oil is solid at 5°C, semi-solid at room temperature, and liquid at body heat or above. It is perfect for mixing with other oils, or on its own it can be used as a salve, ointment or moisturiser for skin, nails or hair. Coconut oil is rich in Lauric acid, and is odourless and colourless (clear liquid or opaque solid).

### **Grapeseed Oil** (*Vitis vinifera*)

Rich in linoleic acid and oleic acid, grapeseed oil is only available refined (until another way of extracting the oil from the seeds is found). It is slightly astringent and helps to tone the skin. It is a good all round, light penetrating oil. Should not aggravate sore skin. An odourless oil with a greenish tinge.

### **Jojoba** (*Simmondsia californica* or *S. chinensis*)

A very 'strange' oil, hardly containing any triglycerides, sometimes classed as a wax. It is rich in eicosenoic acid, docosenoic acid, and oleic acid. Jojoba is almost identical to whale oil and has completely replaced its usage in cosmetics. It resists oxidation even in adverse conditions. It is a very good emollient, rejuvenating and penetrating, it is ideal for greasy skin and hair, and for healing and nourishing tired skin. It is good for areas of inflammation and is used on eczema and problem skin conditions. Jojoba can be used alone or as a carrier and can be mixed with other carrier oils. It is pale to mid yellow and odourless.

### **Kukui Oil** (*Aleurites moluccana*)

High in linoleic acid, linolenic acid, and oleic acid, kukui oil is very good for the skin, especially for restructuring purposes, anti-wrinkle creams, irritated skins, sunburn, lesions, burns, and is a good all round penetrating oil.

## Carrier Oils

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Excellent for use on rough, dry skin and chapped lips, it helps to soften the skin. It is pale with a faint odour.

### **Macadamia Nut Oil** (*Macadamia ternifolia*, or *M. integrifolia*)

Another great Australian oil, macadamia nut oil is high in oleic acid, palmitoleic acid, and palmitic acid. Palmitoleic acid is rarely found in plants, this is a unique oil to say the least. It has restructuring, regenerative, healing and emollient properties, it strengthens and moisturises the skin, and helps to keep it in tip-top condition. It is well stabilised with an excellent safety record. Ideal for facial products, lip balms and baby products. It is colourless and odourless.

### **Sunflower Oil** (*Helianthus annuus*)

A good all round inexpensive aromatherapy oil, it can be used for massage, or as a healing oil, it is rich in linoleic acid, oleic acid and palmitic acid. Sunflower oil can be used for all skin types, and skin problems. It is easily absorbed and light textured. Yellow in colour with a faint odour.

## The Heavier Carrier Oils

These oils are more suitable for use with massage, softening hard skin, as insect repellents, or blended with lighter oils.

Almond Oil

See Sweet Almond Oil

### **Avocado Oil** (*Persea gratissima*)

Unrefined avocado oil is thick and green with a very specific odour; it is also very nutritive, containing a wide range of vitamins and minerals, and is usually used in concentrations of up to 10%. Refined avocado oil is pale green with a weak odour and is not so nutritive. Avocado oils contain oleic acid, palmitic acid, linoleic acid, palmitoleic acid, and linolenic acid. They have outstanding regenerative properties, ideal for dry, undernourished skins, Hand and foot care products etc.

### **Calendula Oil** (*Calendula officinalis*)

Calendula oil is a macerated oil. It can be macerated (infused) with any carrier oil i.e. olive oil, grapeseed oil, almond oil etc. and can be used as a base for essential oils. To find the fatty acid content and penetrating qualities, you will need to research the base oil. Calendula oil can be used neat or diluted and has wound healing, burn healing, antiseptic, astringent and anti-inflammatory properties etc. It is ideal for sunburned, dry flaky skin, insect bites, rashes etc. Mixed with St. John's Wort oil it can be massaged

## Those Amazing Tea Tree Oils

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into bruises or itchy skin. A rich orange oil, which can stain skin or garments and has a specific 'marigold' like aroma.

### **Castor Oil** (*Ricinus communis*)

A very viscous yellow oil with a specific odour. It was made famous by Edgar Cayce, who used it in his immuno-stimulating 'castor oil packs', which were placed on the abdomen and left for at least 30 minutes. Castor oil softens hard, dry skin and is useful in the treatment of calluses, warts, corns, and for use as a carrier for essential oils designed to alleviate minor stomach ache etc. It is very rich in ricinoleic acid. The oil is the only part of the *Ricinus communis* plant that is not poisonous. It may cause allergic reaction in susceptible people.

### **Comfrey Oil** (*Symphytum officinale*)

Traditionally macerated from the leaves and root of the comfrey plant, it is thick and green in consistency. It is rich in allantoin, which is very good for the healing of the skin. It can be used for minor grazes, rashes, bruises and for skin cell proliferation. It should not be used on infected or large wounds, without practitioner advice.

### **Evening Primrose Oil** (*Oenothera biennis*)

A valuable carrier oil, Evening Primrose oil has shown to be very good for dry, mature, and prematurely aged skins. It is said to be restructuring and particularly healing for skin around the eyes and corners of the mouth. Not only is it used in facial creams, lip balms and anti-wrinkle creams it is also good for strengthening nails. Evening Primrose oil contains linoleic acid, gamma-linolenic acid GLA, oleic acid, and palmitic acid. It is pale yellow with a specific faint odour. It is usually blended with other carrier oils.

NB it is known that people suffering from epilepsy should not take Evening Primrose oil internally, for this reason it is wise to exercise caution if using on the skin.

### **St John's Wort Oil** (*Hypericum perforatum*)

St John's Wort oil is a macerated oil. It is ideal for dry sensitive skins and as a carrier for anti-viral oils and in blends designed for neuralgia or sciatica, sprains, herpes lesions, burns etc. it is especially good for soothing nerves. It is also anti-ageing, softening, antiseptic, and is very good in hair care products. The oil is a rich ruby red when fresh, and can stain clothes, it had a specific aroma. CAUTION: The oil may be phototoxic, do not expose skin to strong sunlight within two hours of using the oil on exposed areas.

### **Neem Oil** (*Azadirachta indica*) or (*Melia azadiracta*)

A very thick almost 'fatty' oil, with a very strong odour. It has been used in India for centuries in cosmetics and toiletries. Neem oil is strongly insecti-

## Carrier Oils

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cidal and can be used in head lice shampoos and gels etc. It is rich in oleic acid, palmitic acid, stearic acid, linoleic acid and arachidic acid. It is very moisturising and well tolerated on psoriasis and eczema. This thick brown oil is unlikely to be used on its own, but can be, if you can stand the odour! Usually 3-10% is mixed with another carrier oil, depending on application.

### **Olive Oil** (*Olea europaea*)

Olive oil is rich in oleic acid, linoleic acid, palmitic acid, and stearic acid. It is a thick greenish-yellow oil with a specific strong aroma. It is useful in creams and in blends especially for dry sensitive skins. Olive oil was traditionally used to produce macerated oils; it is usually mixed with a lighter carrier oil.

### **Sweet Almond Oil** (*Prunus amygdalus var. dulcis*)

Almond oil is one of the traditional carrier oils for massage. It is classed by some as a light carrier oil, but does not sink into the surface too quickly. It can be found in most creams and lotions. It is rich in oleic acid, linoleic acid, and palmitic acid. The oil is yellow with a faint odour. Modern herbalists use sweet almond oil as a substitute for olive oil in many macerated oils.

### **Wheat germ Oil** (*Triticum vulgare*)

A good oil when blending a carrier oil, it is thick, orange / brown with a specific 'wheaty' aroma. It has a vitamin E content, which makes it popular in commercial products. It has excellent skin conditioning properties and is rich in plant sterols. Wheat germ oil contains linoleic acid, oleic acid, palmitic acid, and linolenic acid. It is usually used in a concentration up to 10%. Caution anyone with a wheat allergy, wheat germ oil may provoke a reaction.

## Those Amazing Tea Tree Oils

### HOME AND AWAY APPLICATIONS

Tea tree oil can replace a large proportion of toxic chemicals within the home. It is anti-bacterial, anti-fungal and insecticidal, yet safe and natural. It is perfect for the home environment or when travelling.

This chapter shows you how to effectively replace many chemical products, with a safer, natural alternative and how to use tea tree oil to its best effect, in room by room alphabetically ordered applications.

Always patch test initially (on a hidden area) especially on items of furniture, plastics, and soft furnishings before cleaning the whole object. Tea Tree Oil is a natural solvent.

PLEASE READ NOTES ON PAGE 6 BEFORE USING THIS CHAPTER

1ml Tea Tree Oil/Essential Oil = 20 drops  
5ml Tea Tree Oil/Essential Oil = 1 UK Teaspoon

To find the approximate dilution percentage, add the actually percentage number of drops to a 5ml teaspoon and then top up with a carrier. For example, 5% is 5 drops TTO in 1 teaspoon of carrier (grapeseed oil etc.) and so on.

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## **SECTION 1 / ALL AROUND THE HOME**

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### **AIR FRESHENERS**

Add a few drops of essential oil to a fine sprayer filled with warm water (500ml), add a dessertspoon bicarbonate of soda, mix well. Spray when needed. Try tea tree and lemon, or lavender and nutmeg blends.

See CHAPTER 8: TEA TREE OIL POTPOURRI (MISCELLANEOUS) – page 118

### **ASHTRAYS**

Empty the ashtray, wipe around with neat tea tree oil, and fill with Fullers earth or pumice stone pieces (both can be dyed using natural food colouring and allow to dry overnight on kitchen paper). Keep out of reach of young children. Sprinkle on 3 drops tea tree oil and 3 drops Lavender oil, mix into the Fullers or pumice pieces, you now have an air-freshening ashtray. Refresh with more drops of essential oils as necessary.

### **ATOMISER**

Pour 250ml warm water into an all-purpose 'fine mist' sprayer. Add 10 drops tea tree oil, shake well before each spraying and spray around the house as an air freshener and as a germicide. When the family suffer colds or flu etc. 5 drops of niaouli can also be added.

### **BRASS CLEANER**

Rub a few drops of tea tree oil into brass ornaments. For stubborn stains, add tea tree oil to Worcester sauce, rub onto ornament. Polish with soft dry cloth. This should not be used for varnished or coated brass.

### **CARPETS**

Add 8ml tea tree oil and a teaspoon salt to 1-litre warm water and a squirt of carpet shampoo or half the directed amount listed on the packaging if using a mechanical shampooer. Fill a carpet shampooer or manually rub area with an old cotton cloth, this should be enough to eradicate parasites from carpets and to disinfect carpet after soiling by pets, etc.

See VACUUM CLEANER – page 66

### **CREOSOTE**

Saturate creosote stain (on fabrics) with neat tea tree oil. Add salt and washing up liquid and rub well. Then launder as usual. This also works with wet paint. Add washing soda to launder water. NB: some dyes will fade when in contact with creosote. Tea tree oil can damage cheaper manmade materials.

### **DEODORISER**

Tea tree oil is an effective room deodoriser and it can be used in several ways.

## **Those Amazing Tea Tree Oils**

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\*For a quick room deodoriser, soak a flannel in warm water, add a few drops of tea tree oil and place over radiator (do not place over or near a naked flame). \*Or fine mist the area with an atomiser filled with 250ml warm water, 5-10 drops tea tree oil and 5 drops lavender oil, shake well before use.

\*Add a bowl of steaming water to room, place safely out of reach of children, and add 5-10 drops of tea tree oil to bowl, or use an aromatherapy lamp/candle. An electric diffuser is the safest, placed out of the reach of children.

\*Add a few drops of tea tree and lemon oils to potpourri basket, and place under radiator on the floor or drape tissues/kitchen towel over the radiator.

\* Small terracotta, unglazed, ornaments i.e. kettles, bowls, urns, vases etc. (a large base is the best) place beside a fire (not too close), be careful of young children. Fill vessel approximately a third full, with warm water and a few drops tea tree and lavender oils. Stand on a non-porous plate if your grate is easily stained. Small objects with handles can be tied onto radiators, fill with a third full as above. They do look attractive if tied with ribbon or jute rope.

\* On a table lamp base, china or glass. Put 2-4 drops of tea tree oil on tissue and wipe around the lamp base (away from electric parts). Patch test first, do not continue if discoloration occurs.

### **DOOR HANDLES**

Clean and disinfect door handles especially bathroom and cloakroom. Apply a few drops of tea tree oil to damp cloth and wipe over. Patch test first.

### **DOORS**

The tops of doors are usually left unpainted and uncleaned. They can harbour dust and dust mites. Wipe over with tea tree oil solution: 8ml tea tree oil to 1-litre hot water and 2-tablespoons of salt and a squirt of washing up liquid.

### **DRAWERS**

Wipe out drawers with a Tea Tree oil solution (see DUST MITES below), apply liberally to wood inside drawers and furniture to repel wood beetles etc. (remember to allow drawers to dry before use) Use Tea Tree oil furniture polish on outside of wooden furniture. See Wood Polish – page 119

See CHAPTER 8: MISCELLANEOUS – page 118

### **DUSTER**

See WOOD POLISHING DUSTER – page 66

### **DUST MITES**

Dust mites are known allergens for susceptible people. They can live happily in the home environment. Tea tree oil is effective in their eradication without adding more poisons to the environment. Tea tree oil solution - 8ml tea tree

oil to 10ml alcohol (Approx. 2-teaspoons i.e. Vodka or 70% isopropyl alcohol, available from chemists). Dissolve tea tree oil to make water-soluble and add to 1-litre of hot water, stir well. (Keep out reach of children).

Or, make a tea tree oil solution with 8ml tea tree oil to every 1-litre of hand hot water, use a small squirt of biodegradable washing up liquid and a couple of tablespoons of salt to help emulsify the mixture.

Add neem oil for a stronger insecticidal action.

Wash down everything where dust can collect, tops of doors, skirting boards, carpets, upholstery - dry-clean or wash soft furnishings (according to labels).

For soft furnishings, always check the label before washing; add 5ml tea tree oil and 1-teaspoon salt to rinse water, soak for 1 hour, and rinse well. Initially remember to do a small patch test before washing anything.

How to make tea tree anti-dust mite wood polish is in chapter 8– page 119

See also: WOOD POLISHING DUSTER – page 66

### FLEAS

Just 2 fleas entering your home and given the right conditions can generate over 200 trillion offspring within 9 months! They can each live for up to 2 years and survive months without eating. Fleas love woollen carpets but can survive happily in manmade fibres too. Anyone buying a new house with carpets should take steps to ensure their house is free of parasites, before they move in with their furniture.

For dealing with an infestation without using poison: Shampoo all carpets with an organic carpet shampoo (low lather) add 8 ml of tea tree oil to every 1-litre of washing solution, before shampooing. Add 8ml tea tree oil per litre of hot water and 1-2 tablespoons salt, stir vigorously and often to disperse. (Do a small patch test first, if applying to stained/polished wood). Apply to skirting boards and liberally to small cracks and crevices in woodwork. 10ml neem oil and a few drops of lavender can also be added to water.

For furnishings and soft furnishings purchase a natural insecticide for the purpose, your local Health food shop should be able to advise.

See VETERINARY, SECTION 17 – page 92-3

### FLOOR CLEANER

Add 5ml of tea tree oil to floor mopping water, in bucket, to ensure safer fragrant floors.

## **Those Amazing Tea Tree Oils**

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### **FLOOR MOP**

After cleaning floors, wash and rinse out. Add a few drops tea tree oil, to rinse water. Rub through as this will help to prevent going musty.

### **HINGES**

In an emergency a few drops of tea tree oil & olive oil 50/50 on creaking hinges can help to lubricate them.

### **HUMIDIFIER**

Tea tree oil is perfect for humidifiers. The warm moist conditions of some humidifiers are a breeding ground for germs, apply a few drops of tea tree oil to water reservoir of humidifier.

### **INSECT REPELLENT**

Tea tree oil is an effective household insect repellent. Mixed with a few drops citronella oil makes it even more effective. Caution: with caged birds, some cannot tolerate citronella oil.

If you have ever owned a rope/jute door curtain you will realise that it is not an effective insect repellent. But spraying or dipping it in a solution of tea tree oil or as above with citronella, will make your rope curtain a lot more effective and will help to fragrance your home at the same time. Or sprinkle citronella onto it.

See RUSH MATTING – page 65

A steaming cup/container of hot water on a window ledge sprinkled with a few drops of tea tree oil and citronella oil will be quite effective. (Keep out of reach of children). Also label cup/jar so everyone knows what it contains.

### **JEWELLERY**

See MISCELLANEOUS SECTION 16 – page 87

### **KEYS**

Smear a few drops of tea tree oil & olive oil 50/50 onto your keys before you put them into the lock, to lubricate and make them easier to turn. It may also guard against the lock freezing up in winter.

### **LABEL REMOVER**

See STICKY STUFF REMOVER -- page 66

See LABEL REMOVER ON FRUIT / KITCHEN SECTION 2 – page 68

### **LIGHT SWITCHES**

Grubby marks on light switches can be removed with a few drops of tea tree oil on a damp cloth. Remember to switch off the light before you clean.

### PARASITES

See DUST MITES – page 62

See FLEAS – page 63

See INSECT REPELLENT – page 64

See VETERINARY SECTION 17 – page 92, page 94.

### PLASTERS

The adhesive left by first aid plasters can be unsightly and very hard to remove. Rub in a drop of tea tree oil and wash area immediately.

### PEN MARKS

Try a patch test first to avoid discoloration. Stubborn pen marks on washable fabrics may be removed (depending on type of ink used), rub in neat tea tree oil and a drop of organic washing up liquid and wash as per label instructions.

\*Pen marks on hard surfaces can generally be removed using a few drops tea tree oil on a clean damp cloth. Always patch test item initially.

### PET SOILING

Remove any surface matter, mop up liquid, wash area with solution of organic cleaner (depending on surface type) with 1ml (20 drops) tea tree oil to every 100ml water and cleaner. This will effectively kill germs and deodorise area; pets will sometimes re-soil an area if their scent is still evident.

### POLISH

See CHAPTER 8 (MISCELLANEOUS) - page 119

See WOOD POLISHING DUSTER – page 66

### POTPOURRI

See CHAPTER 8 (MISCELLANEOUS) – page 118

### ROPE DOOR CURTAINS

See INSECT REPELLENT – page 64 or RUSH MATTING below

### RUSH MATTING

To keep new rush matting fresh and prolong its life spray twice per week with solution of tea tree oil: Add 5 drops tea tree oil to every 50ml hot water and a small squirt of organic washing up liquid, shake well before use and spray. Peppermint oil or citronella oil may be added to the tea tree water if preferred (An old mat should be thoroughly cleaned first).

### SILVER

Tea tree oil is very effective for cleaning silver. Apply a few drops with a clean duster. Rub in well and buff with a clean cloth.

## **Those Amazing Tea Tree Oils**

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See BRASS CLEANER – page 61

### **STICKY STUFF REMOVER**

Tea tree oil is also an effective solvent. Dab onto the glue residue left by labels, price stickers etc. on china, glass, jars etc. and just wipe off sticky stuff. Stubborn areas may need a couple of applications leave to stand before removing, and wash in a strong solution of washing water, and dry.

See LABEL REMOVER ON FRUIT / SECTION 2 / KITCHENS – page 68

### **VACUUM CLEANER**

Tea tree oil can be used to refresh air freshener pads in vacuum cleaners or try dropping a tissue into the dust-bag, which has been soaked in a few drops of tea tree oil and lemon oil or peppermint oil.

### **WOOD POLISHING DUSTER**

To impregnate a duster for quick, easy dusting, take a large, clean duster square (preferably natural fibres) and sprinkle on the following mixture of oils, evenly over the cloth: 20 drops tea tree oil, 10ml almond oil and 10 drops lavender, orange or lemon oil. Duster should be ‘moist’ not saturated. Leave to stand 24 hours in small airtight container. Use duster whenever required for wood/polished surfaces (not glass). Return to airtight container when not in use. Wash and re-oil when necessary.

See WOOD POLISH CHAPTER 8 (MISCELLANEOUS) - page 119

### **WHITE RING REMOVER**

White rings left by hot liquids on polished surfaces can be removed with a little hard work. Mix 10 drops of tea tree oil and 10 drops of linseed oil and apply to a dry, soft duster. Rub round and round the ring with the oil mixture, pressing down with your fingertips. Dipping duster into oil at least twice may be required. Neat TTO can be used, subject to a patch test.

Depending on severity of ring it could take a couple of applications of 5-10 minutes. Use more of the above oil each time. Always patch test.

See JAPANED TRAYS / SECTION 7 DINING ROOM – page 76

## **SECTION 2 / KITCHEN APPLICATIONS**

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### TEA TREE SOLUTION

The kitchen can be a breeding ground for germs and bacteria. To make a solution, add 8ml tea tree oil to 1-litre hot water, add a squirt of organic washing up liquid and 1-2-tablespoons salt, mix well.

OR

To make tea tree oil water-soluble: mix with equal quantities of alcohol - vodka or isopropyl alcohol (from pharmacies) – strictly abide by instructions on label. Mix 8ml tea tree oil with 8ml alcohol and add to 1 litre of water. This can help to eradicate germs, deodorise and have an insecticidal action. Keep out of the reach of children.

### BINS

Wipe over with the above solution.

\*Freshener - shake 2 drops of Tea Tree oil and 2 drops lavender oil into pedal/swing bin to deodorise (patch test initially, may damage plastic).

### CAN OPENERS

Wipe over with the above solution.

### CHOPPING BOARDS

Soak in a solution as above, rinse well.

### CUPBOARDS

Wipe all around cupboards with tea tree oil solution. Allow to seep into cracks and crevices. Pay special attention to surfaces and doors and tops of cupboards. Modern cupboards usually have a removable 'floor', clean underneath if possible.

### CUPS

Tea stains on cups can be easily removed by making a paste of 1-teaspoon bicarbonate of soda and a few drops of tea tree oil. Mix together, apply on a dishcloth and rub well or small brush, rinse well, and dry.

See TEAPOTS – page 69

### CUTLERY

Apply a few drops tea tree oil to dishcloth and rub into silver, cutlery etc. This will clean and guard against tarnishing. Wash before use.

### DISHCLOTHS

Rinse dishcloth often in tea tree oil solution to keep fresh, boil wash every 2 days, or immediately if used to mop-up meat or fish juices.

## Those Amazing Tea Tree Oils

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### DISHWASHER

Add 1-2 tablespoons sodium bicarbonate (available from chemists or wholesalers) and 5-10 drops tea tree oil to the dishwasher dispenser. It will clean just as well as an expensive dishwashing detergent. Check instructions first.

### DISH WASHING WATER

Add a few drops of tea tree oil to dish-washing water and a squirt of washing up liquid, wash dishes, rinse before drying. Add sodium bicarbonate for dried on food. (This will not sterilise dishes at this potency).

### FRIDGE CLEANER

Clean a defrosted refrigerator with half a litre of the tea tree oil solution (page 67), with a cup of vinegar added, to kill germs and inhibit mould growth.

### FRIDGE/FREEZER DOOR SEAL CLEANER

Apply a few drops of neat tea tree oil to damp dishcloth and apply to the door seal, in-between the rubber layers and right around the edge. Patch test initially.

### FRUIT WASH

Fill a bowl with 2 litres of warm/hot water, add a few drops of tea tree oil, two tablespoons of white wine vinegar and a squirt of organic biodegradable washing up liquid. Stir well. Wash and scrub fruit and non-peeled (root) vegetables. Rinse well and use (Do not store once washed).

### GARLIC ODOUR

See ONION AND GARLIC ODOUR ON HANDS – page 69

See BAD BREATH CHAPTER 9 – page 126

See TOOTH PASTE CHAPTER 8 – page 110

### KITCHEN CLEANER

Put 3ml of tea tree oil and 10 drops lemon oil in a spray bottle with 30ml witch-hazel and shake well, add 250ml warm water and a squirt of washing up liquid. Use as an antibacterial surface cleaner. Always shake well before each spray.

### LABEL REMOVER

Tea tree oil is remarkable for removing sticky residue left behind from labels or price/special offer stickers. Soak jars/plates etc. in hot water and washing up liquid, remove as much of the label as possible - dry and apply neat tea tree oil to glue residue left by labels and rub in, remove with a soft moist cloth and wash again in soapy water. Instant removal. Patch test if on plastics.

## **KITCHEN APPLICATIONS**

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### **LABEL REMOVER ON FRUIT**

Remove the label, apply a couple of drops of tea tree oil to sticky stuff, rub with a kitchen towel, and wash well. See Fruit Wash – page 68.

### **ONION AND GARLIC ON HANDS**

Begin by wetting hands under running water (water tepid), take a stainless steel tablespoon and rub the back of the spoon over the skin on both hands, between the fingers etc. where the garlic has touched, always under the running water. Dry hands, apply soap and 1 drop of tea tree oil (and 1 drop lemon oil - optional) to fumigate and rub in well, wash in warm water, rinse well and dry.

### **RAW MEATS - HYGIENE**

Handling raw meat in the kitchen can transfer bacteria to other foods especially salads. Wash chopping boards, scissors, knives and tops etc. and everything that came into contact with the raw meat in the tea tree oil solution (see page 67) and hot water. Wash and scrub hands especially under the nails with soap and 1-2 drops of tea tree oil. Do not touch salad items until hands are washed.

### **SCOURERS, SCRUBBING BRUSHES**

These items can all harbour germs if left damp on the edge of the sink. Rinse thoroughly with tea tree oil solution, (page 67).

### **SINK FRESHENER**

Pour boiling water down the sink, wait 5 minutes, and apply a few drops tea tree oil to the plughole. Clean sink plug (stopper), top and underneath with neat tea tree oil.

### **TAPS**

Clean around taps and the taps themselves with a few drops of tea tree oil on dishcloth, this helps to guard against limescale. For light limescale deposits around taps, make a paste of salt, bicarbonate of soda and a few drops tea tree oil, using an old toothbrush, dipped in the paste, scrub the limescale. Leave to soak in for 5 minutes then scrub again to remove. Always patch test initially-caution on plastic or enamel areas (may cause discoloration).

### **TEAPOTS**

Clean stained teapots as cups. Or use the light limescale cleaner (taps - above, for stubborn stains. For a quick cleaner: add a few drops TTO to a damp cloth and rub. Rinse well, before use.

### **WORK SURFACES**

Wash down with tea tree oil solution, (page 67) See Kitchen Cleaner – page 68.

## UTILITY ROOM

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### BEDDING WASH

For clean bedding, especially nylon that cannot be boiled, put 1-tablespoon salt in with washing powder and 2 ml (40 drops) tea tree oil in final rinse water. Boil wash all cotton bedding. (Never use a hotter temperature than stated on laundering label).

### CLOTHES WASH

To prevent re-infection of contagious conditions from clothes i.e. impetigo, ringworm (*Tinea*), thrush etc. soak clothes in 8ml tea tree oil and 4-teaspoons salt to every 1 litre of hot water, for 30 minutes before washing (for small areas, apply a few drops to area and wash as normal), rinse well.

### DISHCLOTHS AND DUSTERS

Rinse in solution of tea tree oil and dry. (5ml tea tree oil mixed with 1 tablespoon white vinegar stir well and add to 1 litre of hot water and a squirt of organic washing up liquid).

### FLANNEL WASH

Boil wash, if applicable, or rinse in a solution of tea tree oil and wash as directed (see above-dishcloths & dusters).

### NAPPY WASH

Boil wash nappies, if stated on label or rinse nappies in 8ml TTO per litre of hot water (and stand for at least 30 minutes) wash as stated on label.

### SHOE CLEANER

For most type of shoes (not suede) clean with a few drops of tea tree oil mixed with olive oil on a clean duster. (Patch test first, especially if porous or plastic).

### SHOE FRESHENERS

Make your own shoetrees, which are also a shoe freshener. Take a pair of clean, old socks, darn holes, line with feet from a pair of stockings, and a clear polythene bag, fill with dry sawdust, potpourri and/or even dry, fresh cat litter (i.e. Fullers Earth), pack tightly, sprinkle with tea tree oil - use shoes as guide. Sew, press stud or clip tops ½” above shoe tops. Keep in shoes when not in use. Refresh often with few drops of tea tree oil and lavender or geranium oil. For shoes in need of a stronger freshener add 2 drops of tea tree oil to sides or soles of shoes, these are usually the most porous areas. Patch test plastic first.

### STAIN REMOVER

Tea tree oil is an effective solvent, when added to other ingredients it can help to remove some stubborn stains.

## **Those Amazing Tea Trees**

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As a general guide - do not use on non-washable fabrics or some cheaper manmade fabrics. Always do a patch test first where it cannot ruin the garment if an adverse reaction occurs.

5ml glycerine and 2 drops of tea tree oil.

Stain: chocolate/coffee/grass/fruit /wine stains

1 teaspoon salt, 2 drops tea tree oil and mix with lemon juice.

Stain: perspiration/rust/tea.

New (wet) paint, creosote or indelible ink stubborn rust stains.

Rub immediately with a few drops of tea tree oil, rub in washing up liquid and salt, rinse, repeat, if necessary and wash as normal with 30g washing soda added to washing powder.

Mix 1 teaspoon surgical spirit with 3-4 drops tea tree oil

Stain: For very stubborn stains of the above, and chewing gum (surface matter removed)/pen marks/grease/old stains/deodorant stains etc.

Be careful it may damage delicate fabrics. Always patch test initially.

Work stains from the outside in with a pad of cotton wool or gauze. Rub in organic (biodegradable) washing up liquid and laundry.

For larger organic stains (blood/milk etc.) or as a general stain remover before washing soak in a solution of bicarbonate of soda and cold water, a squirt of organic (biodegradable) washing up liquid and a few drops of tea tree oil. Wash as normal. Always patch test.

NB: I have also removed stains with kitchen cleaner p68.

### TOWEL WASH

See BEDDING WASH – page 70

See FLANNEL WASH – page 70

See NAPPY WASH – page 70

### UNDERWEAR WASH

See CLOTHES WASH – page 70

### VACUUM CLEANER

See ALL AROUND THE HOME / SECTION 1 – page 66. CARPETS page 61.

### WASHING

To save money when doing the weekly wash, add half a tablespoon of sodium bicarbonate (available from chemists) to your washing machine powder dispenser and only half the powder you would normally add, wash as per instructions.

## Those Amazing Tea Tree Oils

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### WASHING MACHINE FRESHENER

When going away on holiday etc. and the washing machine is inactive for more than a week, it is advisable to make sure that it is clean, or when you next use your machine you will find that it may smell musty.

Clean out all the filters, the soap dispenser, and wipe around all the surfaces with a solution of tea tree oil, made with 1-litre hot water, a squirt of organic washing up liquid and 1 ml (20 drops) tea tree oil. When finished add a few drops of tea tree oil to the drum on a cloth, remember to leave the door open for the air to circulate.

## SECTION 4 / THE BATHROOM

**To make a solution of tea tree oil:** add 5ml tea tree oil (1 teaspoon) to 20ml of alcohol, either vodka, surgical spirit or isopropyl alcohol from pharmacies, mix well and add to 750ml warm water with a squirt of washing up liquid. \*\*\*A substitute for washing purposes can be made by adding 5ml tea tree oil to 1 tablespoon salt, 750ml of hot water and a squirt of organic washing up liquid and add 3 tablespoons of white vinegar, mix well, use as required. Always use rubber gloves when cleaning

### BATHROOM CLEANING SPRAY

Add 50ml white vinegar or lemon juice and 2.5ml tea tree oil and 5-10 drops lemon oil to a spray bottle. Mix 1-tablespoon bicarbonate of soda with 200ml warm water and a squirt of biodegradable washing up liquid. Add to the spray bottle and shake well each time used. Spray on bathroom surfaces and wipe with a damp cloth.

### BIN FRESHENER

Wipe around bin with a solution of tea tree oil and hot water (as above). Shake a couple of drops of tea tree oil into base of bin before putting in plastic liner.

### LIMESCALE REMOVER

Wipe around taps with a few drops of tea tree oil. For minor limescale build up, combine 5 drops of citrus oil, 5 drops of tea tree oil, 1-dessertspoon of bicarbonate of soda and a few drops of vinegar to mix a paste and apply to limescale with old toothbrush (Caution - plastic or enamel baths - If in doubt of the quality of your plastic bath do not use).

### LOOFAH

To keep loofahs fresh, rinse in hot water with 1 dessertspoon white vinegar and 3 drops tea tree oil after use.

## THE BATHROOM

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### MIRRORS

To stop mirrors misting up in the bathroom mix 1-teaspoon glycerine with 1-drop of tea tree oil. Rub well into mirror surface, after cleaning, repeat as necessary. (Can also be applied to inside bathroom/kitchen windows). You can replace the glycerine with bio-degradable washing up liquid.

### MOULD

See SHOWER CURTAINS below

### NAIL BRUSHES

To keep nail brushes clean and infection free rub in 2 drops of tea tree oil after use.

### PLUGS

See SINK FRESHENER – page 69

### SHOWER CURTAINS

To kill germs and inhibit mould/mildew growth on shower curtains between washing, spray curtain with a solution: 500ml hand hot water, 100ml white vinegar, 2ml (40 drops) tea tree oil and small squirt of organic washing-up liquid. Shake well before use, spray/wipe tiles and grouting. Scrub clean with a soft brush or old nail brush dipped in the same solution. Also wipe down walls, behind toilet and washbasins to discourage mould growth.

### SPONGE

See LOOFAH – page 72

### TAPS

Wiping over taps with a couple of drops of tea tree oil on a clean, dry cloth will ensure that they are kept sparkling clean.

See LIMESCALE REMOVER – page 72

### TILES

Wipe over tiles with the solution of tea tree oil and buff to a shine using a clean, dry, soft cloth (see Shower Curtains above)

### TOILET HANDLE

Wipe handle with a couple of drops of neat tea tree oil to kill germs, or use the TTO solution - page 67 or 72.

### TOILET SEATS

Wipe seat often with TTO solution page 72.

### TOOTHBRUSH

A bathroom with toilet is not the most hygienic place to keep your uncovered toothbrush. After using rub in 1 drop of tea tree oil to keep germ free and rinse under hot tap before using. Store covered in cupboard.

## Those Amazing Tea Tree Oils

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### WOOD LICE

Wood lice love dark, damp conditions especially with decaying matter. Keep bathroom scrupulously clean, even under the bath if possible. Wiping behind the toilet, sink and bath every week with a solution of tea tree oil, (see page 73, shower curtains) it will inhibit mould/mildew growth and discourage wood lice.

## **SECTION 5 / THE SITTING ROOM**

### AIR FRESHENER

See SECTION 1 ALL AROUND THE HOME – page 61

### COASTERS

To clean the stains from coasters clean with a damp cloth and add 1 drop of tea tree oil, rub well in and polish with a soft dry cloth.

### LAMP BASES

For glass or ceramic lamp bases wipe with 1-2 drops of tea tree oil on a tissue for a pleasant fragrance.

### OIL PAINTINGS

I have found that a few drops of tea tree oil on a little cotton wool will effectively clean my (inexpensive) oil paintings, without damaging the surface. For very old paintings it is advisable to consult a specialist before attempting any kind of cleaning, but don't forget to tell him about tea tree oil! Always do a patch test initially, on an area that does not show.

### TV CONTROLS

To stop the gunge build-up on TV (remote) controls wipe with a solution of half a cup of clean washing up water – 3 drops of tea tree oil. (Avoid washing the writing as it may remove/fade it).

### WHITE RING REMOVER ON FURNITURE/POLISHED SURFACES

See same in SECTION 1 / ALL AROUND THE HOME – page 66

For further applications i.e. furniture, silver, brass, light switches etc.

See SECTION 1 / ALL AROUND THE HOME – pages 61-66

## **SECTION 6 / THE STUDY**

### BOOK COVERS

To remove stains from book covers (NOT CLOTH ONES) apply a few drops of tea tree oil, to a damp cloth. (Remember to do a patch test first).

## THE STUDY

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To wipe over washable book covers and shelves with tea tree oil solution (put 1 litre of hot water into a bowl, add 5 ml tea tree oil and squirt of organic washing up liquid) this helps to guard against book lice. Always patch test initially.

### GLUE / GUNGE RESIDUE REMOVER

Glues, pastes, sellotape etc. all leave a residue on objects, desks and on fingers. Wipe over area with a few drops of tea tree oil on a soft cloth. (Do not forget to initially do a patch test.) Rinse surface.

### KEYBOARD CLEANER

Wipe over with a few drops of tea tree oil on a soft cloth to remove grease from keyboard. This will also remove pen/sellotape marks from the surfaces of other office equipment too. Always abide by manufacturers cleaning instructions and be careful of any writing that may be affected. Patch test a small area initially.

### PEN CLEANER

Tea tree oil cleans pens when finger grease has built up on the casing. Use a solution of 1-tablespoon hot water, 6 drops tea tree oil and a drop of washing up liquid. (Hospital workers should pay close attention, MRSA can be transmitted on pens or hard surfaces, wipe case with 1-2 drops TTO).

(Be careful when cleaning delicate finishes. Read and abide by instructions enclosed with your pen, patch test initially).

### PEN MARKS

See KEYBOARD CLEANER above

For pen marks on clothes, rub a few drops of tea tree oil into mark and launder as normal, for stubborn stains see STAIN REMOVER, UTILITY SECTION 3 - page 71. Always patch test.

### SELLOTAPE RESIDUE CLEANER

See GLUE RESIDUE REMOVER above

### STICKY STUFF REMOVER

See GLUE RESIDUE REMOVER above

### TELEPHONES

Clean all telephones and fax machines as pens (See PEN CLEANER above). If any member of the family has a cold or flu - clean mouthpiece with tea tree oil on soft cloth to kill germs. Patch test initially, TTO may mark cheaper plastics.

See PUBLIC TELEPHONES TRAVELLING: SECTION 14 – page 85

## **SECTION 7 / THE DINING ROOM**

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### **COASTERS**

Clean stubborn marks with tea tree oil on a soft, damp cloth or wash over with a solution of: 1 cup hot water, a squirt organic washing up liquid and 5 drops of tea tree oil, polish with a soft, dry cloth.

### **CONDIMENT TRAYS**

See COASTERS above

### **CUTLERY**

See COASTERS above

Or

See SILVER - ALL AROUND THE HOME / SECTION 1 – page 65

### **DECANTERS**

To remove old wine stains or to freshen decanters, fill with a solution of 500ml hot water (not too hot), 1 tablespoon white vinegar, a squirt of organic washing up liquid and 20 drops of tea tree oil. Shake well (a bottle cleaning brush is very useful for stubborn stains) and top up to the brim with hot water, soak until cold, shake and rinse well. Marbles can also be used to swish round and remove stubborn marks. To dry: Fill decanter to brim with warm to hot water - empty out and turn upside down and allow to empty whilst the hot tap (but not too hot) runs at full force over the upturned base. This will dispose of most of the water. Still upturned, apply gentle heat with hairdryer, not too hot or may crack decanter. Replace stopper only when completely dry inside.

### **JAPANNED TRAYS**

To remove heat marks from Japanned trays rub in a mixture of 1 teaspoon almond oil and 10 drops tea tree oil. Rub in until mark disappears. Depending on age or depth of stain it may take 5-10 minutes, increase tea tree drops if necessary. Always patch test initially.

### **TABLE MATS**

See COASTERS above

### **VASES**

See DECANTERS above and ALLOW TO AIR DRY

### **WOODWORK**

See WOOD POLISHING DUSTER – page 66

See WOOD POLISH MISCELLANEOUS CHAPTER 8 – page 119

See ALL AROUND THE HOME/SECTION 1 – pages 61-66

## **SECTION 8 / THE BEDROOM**

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### **BEDDING**

See BEDDING - UTILITY SECTION 3 – page 70

### **BEDSIDE LAMPS**

Polish base of lamps with 1 drop tea tree oil to 2 drops of lavender oil for a restful night. Patch test initially TTO does have natural solvent properties.

### **COAT HANGERS**

To freshen a covered coat hanger open the seam and sprinkle on 5 drops of tea tree oil and 5 drops of niaouli oil and lemon oil, re-sew. This will freshen up a wardrobe and guard against moths.

### **CUPBOARD AND DRAWER FRESHENERS**

See FRAGRANCE SACS below and page 118

See MISCELLANEOUS / CHAPTER 8 – pages 118-119

### **FRAGRANCE SACS**

To guard against moths and to freshen up the cupboards, wardrobes or drawers, potpourri sacs are inexpensive and simple to make.

### **QUICK NO SEW METHOD.**

For each potpourri sac you will need:

2 tablespoons granulated FULLERS EARTH  
(the least expensive is unperfumed cat litter)  
15 drops of your favourite 'moth repellent' quality essential oils.  
Or see below for a recommended blend.

Small plastic bag 15cm x 10cm food quality  
A circular piece of lace (18cm) or coloured/dyed tights  
A length of ribbon

#### **BLEND 1**

10 drops Geranium oil  
5 drops Tea Tree oil

#### **BLEND 2**

10 drops Lemon oil  
5 drops Tea Tree oil.

#### **BLEND 3**

5 drops Citronella  
5 drops Tea Tree oil

#### **BLEND 4**

5 drops Moroccan Cedarwood oil  
5 drops Rosemary oil

In a small plastic bag put 2-tablespoons of granulated Fuller's Earth. Sprinkle on the essential oils, shaking bag every 3-5 drops. Knot the bag. Plastic bags

## **Those Amazing Tea Tree Oils**

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are ideal as they are airtight, but they let the fragrance through. Cut off the surplus plastic from top of the bag. Prick bag lightly with a pin.

Place into one of the feet of an old pair of clean, coloured tights (white, red, etc.) or in the middle of an 18cm circle of a net curtain or lace, gather edges together, drape around a bright contrasting piece of ribbon, secure with a knot - for hanging in a cupboard or wardrobe make a loop and knot again. For putting into drawers tie and make a bow.

Refresh as necessary every few months, by opening the ribbon, transferring the Fullers Earth to a new plastic bag and sprinkle on more essential oils, make up as before. Also see – page 118.

### **MELAMINE CLEANER**

Wardrobes, dressing tables etc. can be washed with a solution of tea tree oil as for kitchen cupboards (section 1 pages 67 & 68). Stubborn marks may be removed with a couple of drops of tea tree oil on a damp cloth.

### **SHOE FRESHENERS**

See UTILITY SECTION 3 – pages 70 and 119

### **WARDROBE FRESHENERS**

See FRAGRANCE SACS – page 77

See MISCELLANEOUS CHAPTER 8 – page 118

## **SECTION 9 / THE NURSERY**

Tea tree oil is very good for ailments from cradle cap to nappy rash. See Chapter 9 for various ailments. It is a powerful, but gentle, antiseptic helping to keep the nursery clean. Only a low cineole oil (*Melaleuca alternifolia*) should be used. Chamomile oil (*Anthemis nobilis*) and Lavender oil (*Lavandula angustifolia*) can be used in the nursery.

PEPPERMINT or EUCALYPTUS OILS should not be used in the nursery.

### **FIRST AID KIT**

See SECTION 10 – First Aid Box – page 79

### **NAPPY BAG**

Tea tree oil is a useful addition to the nappy bag especially when potty training. Taking a child outside the home can mean that the child comes into contact with unwelcome germs. A child using a public convenience is better protected if you wipe the toilet seat over with a dilution of tea tree oil 3ml tea

## **SECTION 9 / THE NURSERY**

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tree oil to 27ml coconut oil, dry with a clean tissue and add 1 drop of dilution to hands whilst washing, rinse well.

### **NAPPY RASH**

See NAPPY RASH CHAPTER 9 – page 156

See TEA TREE OIL SUPER ANTISEPTIC HEALING CREAM – page 99

### **NAPPY SOAK**

See UTILITY SECTION 3 – page 70

### **NIPPLES**

See SCABIES – pages 157, 162

### **POTTY**

Wipe over potty with tea tree oil solution on damp kitchen roll (discard) to keep germ free.

### **SURFACES**

Keeping the nursery clean is easy using a solution of tea tree oil. Wipe over surfaces using a mix of 500ml hot water, 4ml Tea Tree oil and a squirt of organic washing up liquid. Keep out of the reach of children.

### **TEETHING RINGS**

Wipe over teething rings with mix of: 1 drop tea tree oil to 5ml - carrier (20 drops olive oil etc.), wash well, rinse and dry with clean tea towel.

NB: There is new evidence concerning the plastics of some teething rings, chewing can release toxic substances - check with the manufacturer.

### **TOYS**

Wipe over toys using solution of tea tree oil as for surfaces.

### **TEA TREE OIL VAPOUR RUB**

See CHAPTER 8 – page 101

## **SECTION 10 / THE FIRST AID BOX**

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Tea tree oil should be your first choice for the first aid box. Keep one bottle of tea tree oil in each of your first aid boxes. Caution: Do not keep tea tree oil inside the car during the summer, the high temperatures may damage the oil.

See A-Z of First Aid Applications for a guide to the many ailments tea tree oil helps, prevents and cures. You can make a first aid box from a biscuit tin

## Those Amazing Tea Tree Oils

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or plastic container. I did both and keep one in the cupboard and one for the boot of the car when travelling with children.

### CONTENTS

- 1) One bottle of pure tea tree oil (*Melaleuca alternifolia*).
- 2) One mixed \*10% dilution bottle of 2ml tea tree oil, 4ml Jojoba (*Simmondsia californica*) and 14ml Coconut oil (*Cocos nucifera*). Mix together and keep in a small 20ml, labelled dark glass bottle. \*(Depending on the age of the user - a 1% solution is approx. 4 drops in 20ml carrier; 3% = 12 drops in 20ml carrier.
- 3) Small tub of 'Tea Tree Oil Super Antiseptic Healing Cream' (Chapter 8) – page 99.
- 4) Small tub of 'Tea Tree Oil Anti-fungal Cream' – page 116
- 5) Small tub of Tea Tree Oil Burn Ointment – page 104
- 6) Plasters (Assorted sizes)
- 7) Bandages (Assorted sizes)
- 8) Scissors (Small rounded tips)
- 9) Tweezers
- 10) Safety Pins
- 11) Surgical Tape
- 12) Needle (Stored in a case or with the sharp point stuck firmly into a cork)
- 13) Nail File
- 14) White Cotton Wool Balls.
- 15) Gauze

Lavender oil (*Lavandula angustifolia*) is very helpful for burns, I keep a bottle in my kitchen first aid box, after flooding the minor burn with water, I pat dry and put on a couple of drops. This must be subject to a patch test. This small First Aid box will cover a multitude of scrapes, burns, splinters etc. It will save a lot of tears and time trying to find items when an accident has occurred.

## **SECTION 11 / GARAGE AND TOOL BOX**

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### CUTS & GRAZES

In an emergency, if it is just a superficial wound, 1 drop of tea tree oil can be mixed with ½ teaspoon saliva. With access to water shake 2 drops in a tumbler of water mix very well and clean wound. Large or deep cuts and grazes should be cleaned and dressed properly.

See ABRASIONS CHAPTER 9 – page 121

See FIRST AID BOX SECTION 10 – page 79

### HAMMER

Hitting hands or finger and thumbs with a hammer is quite a common occurrence. Apply cold tea tree oil ice pack. A few drops of tea tree oil on a flannel that has been kept in a refrigerator, (see cold compress - chapter 8) or hold area under a cold running tap for a few minutes to stop the swelling. Pat dry and gently massage in 1-2 drops of tea tree oil.

### HINGES

In an emergency, with no substitute to hand, a few drops of tea tree oil can help to ease grinding hinges, its solvent properties assists in cleaning the moving parts for a smoother action.

### MASKING TAPE RESIDUE

Neat tea tree oil is very efficient in removing glue residue from surfaces. Wipe over with a soft cloth dipped in tea tree oil. For old, stubborn residues allow to soak for 10 minutes before removing with a clean soft cloth.

### NUTS AND BOLTS

A few drops of tea tree oil on a stiff nut or bolt can work wonders, see hinges above.

### PAINT

Paint specks on glass can be removed using tea tree oil and an old razor blade. Soak paint with neat tea tree oil and remove with blade. Wet paint can be wiped off with a few drops of tea tree oil on a clean (lint free) cloth.

(Be careful - the blade can still be quite sharp, KEEP OUT OF THE REACH OF CHILDREN).

## SECTION 12 / IN THE CAR

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### AROMATHERAPY

5 drops tea tree oil and citronella oil is a very good reviver when travelling. It will also help to repel insects from entering your car. A high cineole tea tree oil can be used here. Also try tea tree with orange, peppermint, or lemon.

3-5 drops of niaouli is also a good reviver and can help to alleviate cold symptoms.

Sprinkle oils onto a tissue and put them into the open ashtray, or you can use the ashtray freshener method below, which also works on a similar principle.

### ASHTRAY FRESHENER

Take 1-tablespoon of granulated 'Fullers earth' or similar material (a cheaper version is unperfumed cat litter which works just as well), and dye with a natural food colouring - dry overnight on kitchen towel. Place the dyed 'Fullers earth' into the ashtray and sprinkle with essential oils as described in 'Aromatherapy' above. It will freshen your car and help to revive you on a long journey. Refresh with a few drops of essential oils when necessary.

### DE-MISTER

Use 25ml glycerine or teaspoon washing up liquid. Using a clean, lint free cloth, apply to inside of the clean windows all around the car. Rub well in until the windows are smear free. This will guard against misting up and help to prevent frosting. Do not use on windscreen. Repeat as necessary.

### FIRST AID KIT

See FIRST AID BOX SECTION 10 – page 79

### FRAGRANCE CUSHION

To make a no-sew fragrance cushion see CHAPTER 8 – pages 77 and 118

### INSECT REPELLENT

See – page 64, page 86 and page 149.

### KEYS

Smear 2 drops of tea tree oil mixed with olive oil onto car keys. It will keep locks smooth and may guard against them freezing up in the winter.

### MOTION SICKNESS\_ See also – page 85

2 drops of tea tree oil and 1 drop peppermint oil (*Mentha piperita*) sprinkled onto a tissue inside a small plastic bag, can guard against nausea caused by the rocking motion of the car and by the petrol fumes (lavender oil can be substituted or mixed with TTO if preferred). It is also invaluable when driving with a cold or blocked sinuses. Keep plastic bags out of the reach of children.

## SECTION 13/ IN THE GARDEN

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### BARBECUE INSECT REPELLENT

30 minutes before a barbecue light half a dozen aromatherapy lamps, sprinkled with a few drops of tea tree oil and citronella or cajuput.

(Keep out of reach of young children)

### FUNGICIDE AND INSECTICIDE SPRAY

For an all round insecticide, fungicide, and bactericide, take 150g chrysanthemum heads (*Tanacetum cinerariifolium*), 5 cloves of garlic, chop, place into liquidiser with 500ml water, blend until smooth, (soak and wash liquidiser well after use). Sieve liquid through a fine mesh sieve (muslin is the best, squeeze out every drop of liquid - wearing rubber gloves), make up with tepid (boiled) water to 5 litres. Add 3ml tea tree oil, a squirt of washing up liquid and pour into a plant/garden sprayer.

To make without a liquidiser use either powdered (70g) dried flower heads or boil 200g fresh chrysanthemum heads with 1 onion and garlic for 30 minutes allow to cool then strain, add the TTO and the biodegradable washing-up liquid mix well and dilute as above.

For a stronger insecticidal action add 5ml neem oil.

IF STORING, LABEL AND DATE THE LIQUID, KEEP OUT OF THE REACH OF CHILDREN. IDEALLY STORE IN BOTTLE WITH CHILDPROOF CAP.

*Tanacetum cinerariifolium* is non-toxic to mammals but some people may have an allergic reaction.

Shake contents of sprayer well and spray plants, making sure every part of the plant gets a good soaking, especially on the underside of leaves - spray once a week during June-July-August on a dry, still, cool evening.

### MILDEW

Add 1ml tea tree oil to 2 litres of full fat milk and add a squirt of biodegradable washing up liquid, spray mildewed plants, patch test of plants initially.

### GREENHOUSE

Tea tree oil can be used as an insect repellent inside the greenhouse.

1) On the greenhouse door hang a large plain net curtain, making sure the curtain has a large hem to hold stones. Unpick 2" of the hem, fill and sew with stones into the bottom of the curtain, this will weigh it down. Put the fungicide and insecticide solution into greenhouse sprayer and refresh curtain and stones every morning during season. Shake well before use.

2) Fill the feet of tights with Fullers earth (cat litter) or sawdust to form a small ball. Sprinkle on a few drops each of a high cineole tea tree oil and citronella oil - hang quite close to the open windows or place under plants. The oil of *Tagetes* (French marigold) can also be sprinkled on.

## Those Amazing Tea Tree Oils

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NB. The 'Fungicide and insecticide spray' can also be used as a spray deterrent in the greenhouse, as above, mist air regularly if infestation is apparent.

### PLANT POTS

Used plant pots can harbour germs and fungi from previous plants. Soak and wash well in a bowl of hot water with 20 drops of tea tree oil, 1-tablespoon vinegar and a squirt of washing up liquid. Scrub pots and allow to dry naturally.

### SLUGS

There has been some anecdotal evidence that eucalyptus oil may be a contact slug killer. Next time you are plagued with slugs try putting 3ml of eucalyptus oil and 2 teaspoons Epsom salts into 500ml warm water with a tiny squirt of bio-degradable washing up liquid (to emulsify) and contact spray the slugs.

## SECTION 14 / TRAVELLING

For many years, Australian tea tree oil has been known affectionately as "a medicine kit in a bottle". It is perfect for popping into your handbag or suitcase when travelling at home or away overseas. If you have children or you have sensitive skin and prolonged use may cause a reaction, dilute the tea tree oil as appropriate for the youngest user. For example: a 5% oil is made with 1ml of TTO in a 20ml glass bottle and add 19ml carrier oil. The carrier oil can be grapeseed oil (*Vitis vinifera*) or for a lighter oil, fractionated coconut oil (*Cocos nucifera*) is ideal. Label and date the bottle and use within 3 months.

### FIRST AID KIT

For a (handbag sized) first aid kit put 1 x 10ml diluted tea tree oil, 10ml 1 x 10ml lavender oil (*Lavandula angustifolia*), plasters (various sizes), gauze, surgical tape, tweezers and small pair of scissors into a make-up bag. If you keep the make-up bag in you handbag, briefcase or luggage, you will always have it handy. See p79

### HAND WASHING

If you have ever tried to wash your hands in unfamiliar surroundings with no soap you will be pleased to hear that tea tree oil is an effective bactericide. Put 2 drops of a tea tree dilution on your hands add a little warm water now rub hands together as if you had soap, rinse very well under tap and dry.

## TRAVELLING

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MOTION SICKNESS\_See also – page 82

Apply 1 drop lavender oil or dilution onto wrist and rub wrists together, apply pressure to inside of each wrist with finger tips, either constant pressure or slight rubbing movements, whichever you feel comfortable with. Try to keep eyes firmly fixed ahead and relax. Count backward from 100.

The rubbing motion together with the pleasant aroma really does help to conquer nausea. Diluted peppermint oil can be used instead if you prefer.

### PUBLIC CONVENIENCES

When travelling and having to use public conveniences, I cringe at the condition - thank goodness for tea tree oil! First, dry the seat with tissue, then sprinkle a few drops TTO or dilution onto the seat, and wipe round well with a tissue. I also do this in the cleaner hotel powder rooms too.

### PUBLIC TELEPHONES

Before using a public telephone, wipe the ear and mouthpiece with a few drops of tea tree oil dilution sprinkled onto a tissue.

You should also do this on your home telephone when a member of the family has a cold or flu (patch test initially).

### REVIVER

When stopping for a rest and drink ask for a cup of hot water. Sprinkle on 2 drops niaouli oil and relax with the reviving aroma - aromatherapy in a cup.

If staying in a hotel, hang damp cotton wool balls over the radiator with a few drops of tea tree oil. Add lemon oil to them, when the heating comes on in the morning you will wake up to a refreshing aroma. Or use lavender oil (very nice mixed with nutmeg) in the evening to help you to sleep.

### SLEEPING

If staying overnight in a strange room, take a bottle of lavender oil in your suitcase. Either sprinkle 2 drops of lavender oil onto your pillow or into a cup of hot water just away from your bed, it will help you to relax (do place it away from your bed so that you do not wake up and drink it!)

It seems that research has now found that foot odour can attract mosquitoes, rub a couple of drops of diluted citronella oil and tea tree oil into your feet before going to bed, and before setting out in the morning.

### TRAVEL SICKNESS

See MOTION SICKNESS – above - page 82

## **SECTION 15 / CAMPING AND HOLIDAYS**

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SEE ALSO TRAVELLING - SECTION 14.

### **EMERGENCY HAND CLEANER**

Rub a few drops of diluted tea tree oil into hands, rinse if possible and dry with a tissue.

### **INSECT BITES**

Apply 2 drops of 3% tea tree oil dilution, as soon as bite is noticed. This will help to stop the itching. If abroad, medical attention should be sought as soon as possible. Have a description of the insect ready. See pages 127, 149 and 168.

### **INSECT REPELLENT**

Apply mixture of 1ml citronella oil (*Cymbopogon nardus*) and 1ml tea tree oil to every 50ml baby oil. - Always remember to do a sensitivity test initially. You can also sprinkle neat citronella onto hat, clothes, socks and shoes.

If camping at night and you have lit a fire, sprinkle a few drops of tea tree oil and citronella oil into a metal cup containing hot water, place near to the fire. Or sprinkle a few drops of the oils onto the warm stones around the fire for an insect repellent.

### **LEECHES**

To repel leeches in marshy areas apply a few drops of tea tree oil to socks and diluted to lower legs or any exposed skin.

See TICKS below

See INSECT REPELLENT above

See also page 151

### **SANITARY WIPES**

Pre-soak natural, unbleached, strong kitchen roll squares (enough to fill chosen plastic, airtight box) in a solution of tea tree oil and cooled, boiled water. (100ml water to 2 ml tea tree oil). Shake tea tree oil and water very well to disperse the oil and tip onto the kitchen roll in a small (sterilised) airtight plastic box allow, replace lid. Use as required.

### **TICKS**

These nasty little creatures not only give a painful bite but also can carry Lyme disease. If you intend to walk through woodlands or fields, it is sensible to cover up, wherever possible, and use the right footwear. Tea tree

## **SECTION 15 / CAMPING AND HOLIDAYS**

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oil can help to repel ticks, apply diluted with baby oil to exposed skin before starting out on walk.

See also – pages 96 (pets) and 173.

See INSECT REPELLENT page 86

### **WASHING WATER**

If the dishwashing or personal washing water is cold (but looks clean), or you are unsure of quality, add 3-5 drops of tea tree oil to it, stir vigorously, add 'soap', and wash. (Avoid eye area).

## **SECTION 16 / MISCELLANEOUS**

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### **EARPHONES**

Wipe over plastic ear phones with a few drops tea tree oil diluted with olive oil on a tissue and dry with a soft cloth, this can help to avoid infection. Do be careful of the plastic, TTO works as a solvent and melts cheaper plastics.

### **JEWELLERY**

Amber - to keep amber clean and in good condition try wiping with 1 drop of a tea tree oil and olive oil mix on a soft dry cloth.

Gold and silver jewellery – wipe over with a soft cloth sprinkled with a few drops of tea tree oil and polish to maintain brilliance. Be careful of plated metals, tea tree oil may damage them.

For stubborn marks on silver, rub persistently with a few drops of neat tea tree oil on soft cloth.

### **MUSICAL INSTRUMENTS**

To keep mouthpieces clean, wipe over with tea tree oil before and after use, buff with a soft, dry cloth. Do be careful of plastic the cheaper the plastic the more likely that TTO will dissolve it.

### **STICKING PLASTER ADHESIVE**

Sticking plaster adhesive is unsightly and makes hands look dirty. Rub in a few drops of tea tree oil and wash hands.

(Also removes adhesive left by price stickers on fruit, glass, and crockery).

### **THERMOMETER CLEANER**

Wipe with neat tea tree oil after use, store in its own case. Wipe again before use with tea tree oil and then with a tissue to remove surplus.

## SECTION 17 / VETERINARY

INITIALLY A SENSITIVITY TEST MUST BE CARRIED OUT BEFORE USING TEA TREE OIL DIRECTLY ON PETS. *APPLY DILUTED (AS BELOW) TO A SMALL AREA FOR 48 HOURS IF NO REACTION IT SHOULD BE SAFE TO USE.*

*Only a low cineole oil (Melaleuca alternifolia) should be used in this section.*

ALWAYS KEEP ESSENTIAL OILS AWAY FROM THE EYE AREA.

New guidelines have been released that state tea tree oil is a potential skin irritant for pets. There have been several cases of skin irritation and even central nervous system symptoms in dogs, such as tremors and depression. Symptoms have usually cleared up after discontinuing use. It is your choice whether you use it on your pets. Personally, I have used it for years with no problems at all, and I have testimonials stating that pets having baffled the veterinarians with their particular skin conditions have been 'miraculously' cured with diluted TTO. However, it is very important that you follow the guidelines if you intend to use TTO in this section, for pets.

1. Make sure that you are using a fresh oil, NEVER use one that has been stored incorrectly or for a long time. If it is near to the expiry date or you have used it for over six months it is borderline and you may have an increased risk of reaction.
2. Make sure that the oil comes from a trusted supplier; *Melaleuca alternifolia* must be on the label and you must be sure that the cineole content is under 5%.
3. If your pet is light-haired (white, grey etc.) it has an increased risk of reaction, keep the dilution percentage to a minimum. Do not use on rabbits, kittens or puppies.
4. Do not use neat tea tree oil straight onto the skin and always patch test a dilution, on a small area of skin, for signs of a reaction.
5. Only use when needed, when there are obvious signs of itching, infection, or broken skin. Prolonged use (daily for over a few weeks without a break may cause sensitivity in susceptible pets). Or follow the vet's advice, some do use tea tree oil.
6. If you notice any reaction stop using immediately.
7. A natural tea tree water (hydrosol) is now available from essential oil suppliers; it can give protection against fleas and be sprayed directly onto the pet, always follow directions on the manufacturer's label. Make sure that it is natural water from the distillation tanks, some unscrupulous suppliers mix tto, alcohol and water.

### ABCESS

Pets often get into fights, it is natural territorial trait, but if not very careful, when the skin is punctured by a tooth or claw, infection can set in and an abscess is the most likely result.

At first signs of a puncture wound or abscess dab with appropriate mixture on cotton wool 2-4 times per day, try to keep pet from licking the area treated for at least 30 minutes after application. When the abscess bursts, allow to drain and apply tea tree oil mixture for 7 days.

If abscess is large, if it is situated in the mouth, on the head, shows no sign of improvement or the animal is in obvious distress consult a vet as soon as

## THOSE AMAZING TEA TREE OILS

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possible. If the abscess appears to be hard or becomes hard, consult a vet, it may not be an abscess.

DILUTE TEA TREE OIL AS FOLLOWS:

### DOGS

Mix 10 drops tea tree oil in 1 teaspoon (5ml) of carrier i.e. grapeseed oil. Apply to abscess at first signs, 2-4 times per day. This is a 10% dilution.

### CATS

Mix 5-10 drops tea tree oil with 5ml carrier as above, apply 2-4 times per day.

### ANTISEPTIC

Tea tree oil is a natural antiseptic for your pet. Bathe wounds, bites, scratches etc. with a dilution of 2 drops tea tree oil mixed with 3 drops coconut oil and add to a small bowl of warm water (mix well as you use to emulsify oil) use with cotton wool. Then apply oil mix to wound (See listed below, strengths for type of pet). Dab onto wounds twice per day to help stop infection. For large wounds or wounds that are slow to heal, seek advice from a vet.

NB: Any carrier oil can be used but fractionated coconut oil (*Cocos nucifera*) is more suited to washing, olive (*Olea europaea*) or grapeseed oils (*Vitis vinifera*) are also suitable as carrier oils for pets.

\* Use 2% or less on small animals and small birds up to hens, 1-2 drops TTO to 1-2 teaspoons (5ml-10ml) of carrier oil and dab onto wounds.

\* Use up to 5% dilution on small dogs and cats; 1-5 drops TTO to 5ml teaspoon of carrier oil.

\* Use up to 10% dilution on large dogs 2-10 drops TTO per teaspoon (5ml) carrier.

\* Use up to 10% dilution on horses/cattle (2-10 drops TTO per 5ml carrier).

These percentages are guidelines only for home use, consult a vet or a qualified veterinary aromatherapist if a stronger dilution is required.

### BATHING

Bathe dogs monthly, or as soon as you notice scratching. To avoid infestation by fleas, add a mix of 5 drops of tea tree to a 5ml teaspoon neem oil (*Azadirachta indica*), add to warm bath, rinse coat, or shampoo with organic pH balanced NEUTRAL shampoo (or add 3-5 drops of tea tree oil and 1ml neem oil per teaspoon of shampoo and mix well). Lather well and leave on

## **Those Amazing Tea Tree Oils**

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coat for 5 minutes then rinse. Bathe every week if animal is already infested with fleas, continue for 3 weeks. AVOID THE EYE AREA.

### **BEDDING**

Wash bedding often, boil wash if possible. It is easy to make a bed that can be boil washed in your washing machine.

Depending on size of your dog/cat. Use 1, 2 or 3 pillowcases or ticking - For just 1 pillowcase do not open any seams. For 2 pillowcases, open 1 long side seam, on each pillow (these are the middle seams for your duvet style bedding). For 3 pillowcases, open one long seam on 2 out of the 3 pillowcases, the 3rd pillowcase - open both long seams, this is the middle case. Pin pillowcases together along opened seams until you have what resembles a small duvet cover, and then sew along pinned seams. Sew halfway along the seam with the envelope flaps, fill with the cotton mixture below, and sew across opening fully. (For a very large bed utilise half a small duvet cover).

ANOTHER QUICKER METHOD IS TO SEW ALL LONG SEAMS TOGETHER, JOINING THE PILLOWCASES (WITHOUT UNPICKING ANY SEAMS) AND FILL PILLOW CASES (1,2,3 OR 4 DEPENDING ON SIZE) WITH THE COTTON FILLING DETAILED BELOW, THEY CAN THEN EITHER BE LEFT WITH THE ENVELOPE FLAP CLOSED OR SEWN ACROSS TO SECURE FILLING INSIDE.

Shred old sheets, old towels (anything that can be boil washed) cutting them into approximately 15cm squares. Fill pillowcases until padded then close up the opening. Every 2-4 weeks throw the whole bed into the washing machine. If you have made an additional, separate cover out of old towel or sheet, wash that too. Boil wash, put 2ml of tea tree oil into final rinse waster. Tumble dry. Wipe over the area that the bed was on, with solution of tea tree oil and washing water. In the winter you may find two beds are useful, you can wash one while using the other.

### **BIRDS & POULTRY**

Tea tree oil is very effective for masking the scents that cause poultry cannibalism. Add 2-4 drops Tea Tree oil (depending on size of the bird) to 5ml of coconut oil and pour into a fine spray atomiser bottle of 150ml warm water, shake bottle well before each use, and either spray direct onto area (avoid head completely) or mist a piece of gauze and dab area. Patch test initially on a small area, if reaction occurs, discontinue use. This is effective for stopping self-plucking and parasites. Wipe around cages too. Do not use citronella oil around birds or poultry. Discard after use do not store.

NB: Tea tree water (hydrosol) can be used.

### **BITES**

INSECT BITES: Apply a mixture of tea tree oil and carrier oil to bite in 1% to 5% dilution depending on size of animal. (See ANTISEPTIC for % - page 89)

## **VETERINARY**

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**INSECT STINGS:** If in mouth dab with vinegar and ice if a wasp sting, bicarbonate of soda solution and ice if a bee sting, to avert swelling. Consult vet as soon as possible. See STINGS – page 95

**ANIMAL BITES** See ANTISEPTIC - page 89

### **BLANKETS**

Some pet blankets you can wash but not boil wash. Follow the washing instructions on blanket and add 8ml of tea tree oil to final rinse water. Allow standing in water for at least 30 minutes.

**CAGES** Hamsters, rodents, birds etc.

When cleaning out cage wipe with a solution of 3ml tea tree oil to 500ml of warm water and a small squirt of organic washing up liquid, (stir well).

### **CAT LITTER**

Apply 1-2 drops of tea tree oil into corners of cat litter tray to deodorise.

Apply only a small amount at first for your cat to get accustomed to it.

When changing litter it is often advisable to put an opened supermarket carrier bag, as a liner, onto the base of the tray - tuck edges under tray (or a couple of pages from a newspaper folded to fit) and fill with cat litter. This can then be scooped up and disposed of when the litter is very soiled. Wipe out litter tray with piece of dampened kitchen towel soaked in a solution of 50ml hot water, washing up liquid, 20 drops Tea Tree oil before putting liner down.

### **COAT CONDITIONER**

In between bathing your pet, keep coat healthy and pest free by mixing a very low dilution of 1 drop tea tree oil in 20ml Coconut oil (4 teaspoons), store in a bottle, sprinkle a few drops all over coat, around neck area especially, comb through. Or sprinkle a few drops of mix onto a sponge and rub over coat. Always avoid eye area. Tea tree water/hydrosol can be used, sprayed onto coat.

### **DEODORANT**

If your dog needs a deodorant, see BATHING - page 90 and COAT CONDITIONER above. Both applications work as a deodoriser too.

### **DEW-CLAWS**

For damaged dew-claws treat as a wound. If persistently damaging dew-claws seek the advice of a vet.

### **EARS**

Dogs, cats, and horses are often prone to ear infections, sometimes caused by parasites. When applying to ears, use a dropper and massage in - be careful

## **Those Amazing Tea Tree Oils**

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of the animal shaking its head, do not put dropper inside the ear. Apply a slightly warmed mixture of the following, twice per day if possible, until alleviated. Swab excess with cotton wool.

CAT/ & Sml Dog: 1 small drop tea tree oil to 10ml olive or coconut oil, apply a few drops of MIX to each ear as above.

DOG: Mix 1 drop tea tree oil and 7ml olive oil, apply few drops of mix to each ear.

HORSE: Mix 1 drop tea tree oil to 7ml olive oil, apply mix to each ear.

If infection persists see vet.

### **ECZEMA**

(Sweet Itch in horses)

Apply solution twice per day:

CAT/& Sml dog: Apply mix of 2-5 drops tea tree oil to 5ml coconut oil to infected area, dab on with cotton wool.

DOG: Apply 5-10 drops tea tree oil to 5ml coconut oil to infected area, dab on with cotton wool.

HORSE: For large areas make up a large (150ml) dark glass labelled bottle of 5ml-10ml tea tree oil and 95ml coconut oil and apply to infected area with cotton wool. Try 5% dilution initially, if there is no improvement in the itching, and no adverse reaction, try up to 10%.

If condition persists, consult vet.

### **FLEAS**

Even if you have never owned a pet, if you have moved house within the last 18 months it is possible that fleas exist within your home.

How to rid your home of fleas and dust mites:

See ALL AROUND THE HOME / SECTION 1 – pages 61-66

Shampoo carpets, upholstery and soft furnishings with tea tree oil in the water reservoir, if using an electric shampooer, or add tea tree oil to the washing water (8ml to 1 litre). Do not forget the car interior.

Wipe over skirting boards with strong solution and into cracks and crevices.

Wipe all kitchen cupboards regularly. Let water drip into cracks and crevices.

Adding 5-15ml per litre of Neem oil is also beneficial.

### **PETS**

If your pet is already infested add 3-5 drops tea tree oil and 1ml neem to every teaspoon of their regular organic shampoo, mix well and bathe every

## **VETERINARY**

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week for 3 weeks. Remember to leave on coat for at least 5 minutes before rinsing.

It is possible to use mild, organic washing up liquid instead of shampoo, add a few drops of neem, and tea tree oil as above.

Condition coat regularly, SEE Coat conditioner p91 apply a few drops of the mixed tea tree oil and coconut oil to a damp sponge or cloth and wipe all over pet, especially around neck, tummy and back at base of tail. If your pet will allow it you could spray the following mixture onto their coat: 2 drops tea tree oil mixed with 5ml coconut oil and 2ml neem oil, add to 150ml warm water in a fine spray atomiser bottle. Shake bottle well before each spray, and mist directly onto area, taking care not to saturate (avoid head and around eyes, completely).

If pet is or has been infested: boil wash their bedding often. Add 8 ml of tea tree oil to final rinse water and stand for 30 minutes, if unable to boil wash. Make two pet beds, one can be used, whilst the other is put into the boil wash and then tumble-dried. This will ensure a flea free pet bed.

See BEDDING - page 90 for full instructions.

NB: You may also like to add garlic and brewers yeast to your pets diet, fleas hate the taste. Many pet owners swear by it.

See BATHING – page 89-90    See COAT CONDITIONER – page 91

### **FOOD HYGIENE**

Keep food area clean by wiping with a solution of 2ml tea tree oil to 200ml hot water and a small squirt of organic (biodegradable) washing up liquid.

### **FUR CARE**

Comb fur daily, especially on long-haired breeds. If matted try wetting matted hair with a mix of: 1drop tea tree oil to half a teaspoon (2.5ml) of carrier oil and rub in. Try to ease matted fur a little at a time from top of matt with a comb.

If you do have to cut the patch of fur off, try cutting down vertically instead of horizontally and ease with comb again. Cutting this way makes less of a bald patch. If skin is nicked, bathe to stop infection (see Antiseptic – p89).

### **INSECT REPELLENT**

A few drops of citronella to 100ml warm water, in a fine spray mister, shake well before each spray (or citronella floral water can be used in sprayer). Do not use near eyes or for birds.

### **KENNEL HYGIENE**

See BEDDING – page 90

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If you have to keep your dog in a kennel, wash it down every few weeks (but make sure it is not damp in winter) with a soapy solution of 1 litre of hot water, 8ml tea tree oil and a squirt of biodegradable washing up liquid.

### LEECHES

If you live by marshy ground your dog or cat could pick up a leech. Dab leech with neat tea tree oil and sprinkle with salt until it falls off. Treat wound as in ANTISEPTIC APPLICATIONS – page 89

### LICE

LARGE DOGS: Sprinkle coat all over with mix of: 3 drops tea tree oil to every 5ml /1 teaspoon of coconut and neem oil comb through. Bath often.

SMALL DOGS/ CATS: Mix 2 drops tea tree oil to every 5ml coconut with up to 3ml neem oil and sprinkle a few drops of mix into coat as above, comb through.

### MANGE

See ECZEMA – page 92

### MOUTH INFECTIONS

See ABSCESS – page 88

See STINGS – page 95

### NAIL (CLAW) CARE

Cutting dogs claws/nails usually needs to be done by a professional with a special claw/nail clipper.

Before your appointment, soak claws in a mixture of 5 drops tea tree oil and 10ml carrier oil, 2 days before and for 2 days after they have been clipped to help to prevent splitting and infection.

### NAIL (CLAW) INFECTIONS

Apply 5% tea tree oil (5 drops TTO in 5ml teaspoon topped up with carrier oil i.e. olive oil) to claws/nails twice per day for 7 days. Try to discourage pet from licking the area. If infection persists or gets worse see vet.

### PAWS

Both dogs and cats paws can become cracked and infected. Bathe paws in antiseptic solution (SEE Antiseptic - p89) and apply a few drops of following mix: 1ml tea tree oil to 50ml sweet almond oil (*Prunus amygdalus var. dulcis*) (Store in labelled dark glass bottle), apply 2-3 times per day. If the pet would wear little socks it would assist healing and help to keep area clean.

### **SHAMPOO**

Add 1ml (20 drops) tea tree oil to every 100ml proprietary brand pet shampoo (plain/organic) for a skin conditioner and insect repellent. A mild, organic washing up liquid is a good shampoo substitute, add TTO as above along with a few drops of Jojoba and or Olive oil.

See COAT CONDITIONER – page 91

### **SOILING**

To clean area, mask smells and so prevent re-soiling: clean matter from area, blot liquids with kitchen towel. Clean with a solution of 250ml hot water and a squirt of washing up liquid - depending on the type of soiling add 20 drops to 30 drops of tea tree oil to hot water, patch test and apply to area, clean and blot dry.

### **SPLINTERS**

If your pet picks up a splinter or thorn, remove with a pair of tweezers and apply 1 drop of antiseptic oil mix, twice per day until healed.

See ANTISEPTIC p 89

### **SPRAYING**

Spraying is a natural habit for Tomcats; they are marking their territory. Neutering the cat usually stops this annoying habit but when a cat feels insecure by the addition of another pet, even another family member, moving house etc. your Tomcat could revert to his old ways again.

Make your cat as secure as you can with lots of reassurance. Mask the sprayed area with a solution of 200ml hot water, squirt of organic washing up liquid and 20+ drops of tea tree oil. If all else fails and your Tomcat is still spraying inside the home, purchase a plastic spray bottle from a garden centre. Fill with warm water and 1 drop of tea tree oil (shake bottle well) - when (and only when) you actually catch him spraying inside the house, give him 2-3 short bursts of water to his tail (always avoid spraying head and eyes) and put him outside. Within a few days, he should have got the message, and stopped spraying indoors. Never allow children to do this.

### **STINGS**

If stung by a bee and the sting is still in wound, scrape out with thumb nail or flat card (old credit card is ideal) be careful not to agitate sac of poison if still evident at base of sting. Blot area with a drop of diluted tea tree oil and apply cold pack. If stung in the mouth apply bicarbonate of soda and ice and consult vet as soon as possible.

Wasp sting: Apply 1 drop of diluted tea tree oil to area and cold pack if possible. If stung in the mouth apply vinegar and ice and consult vet as soon as possible.

## **Those Amazing Tea Tree Oils**

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If animal shows any signs of abnormal swelling, wheezing, coughing, sneezing, panting or anything that you are worried about consult vet immediately. Your pet may be having an allergic reaction to the sting.

### **SWEET ITCH**

See ECZEMA – page 92

### **TAR**

If your pet is covered in tar - mix 1 tablespoon of organic washing up liquid, 2 teaspoons salt, and 2 drops tea tree oil and rub well into the tar. Rinse well with warm water, shampoo and repeat if necessary, a shower attachment to the bath taps makes this job easier (make sure the water is just warm). If fur is very clogged, it may need further applications.

Use the same method if your pet becomes covered in diesel oil.

### **TICKS**

If you notice a small, greyish, oval lump protruding from the skin, your pet may have a tick. The head will be buried underneath the skin so do not try to pull out by force. With a cotton wool bud or a small piece of cotton wool, dab on tea tree and neem oil mixed with surgical spirit, dab directly onto the tick and around edge. Repeat every 10 mins. If the tick has not gone, after six applications grasp it with a pair of tweezers and gently rock backwards and forwards, to loosen, do not pull directly. Repeat oil treatment until it drops. When the tick has loosened its grip and is pulled away, dispose of safely and dab area with tea tree oil dilution. Check with the vet about any infectious diseases ticks may be carrying in your area.

See ANTISEPTIC APPLICATIONS - page 89

### **TOYS**

Wash toys often. Soft toys can be washed in a solution of hot water and organic washing up liquid with 2-3 drops tea tree oil, rinse and dry.

Wipe over plastic and rubber toys with the same solution.

### **WOUNDS**

See ANTISEPTIC – page 89

Large wounds or wounds with heavy bleeding should be seen by a vet.

## **SECTION 18 / AT WORK**

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### **BIN FRESHENER**

Apply a few drops of tea tree oil to an empty bin. Wipe round with a tissue.

### **BREATH FRESHENER**

In an emergency, rub 1 drop of 1% dilution of tea tree oil and carrier oil onto teeth with a clean, washed fingertip.

### **CHEWING GUM**

Chewing gum on floors or furniture can be removed by scraping with a plastic card (i.e. an old credit card) remove as much surface chewing gum as possible. Sprinkle 2 drops of tea tree oil on top of the residue and rub with your fingertips covered by a duster or damp cloth. Repeat until removed. Always patch test first, especially on polished wood. Old chewing gum residue may leave a mark also, depending on surface type.

### **CLOAKROOMS**

Tea tree oil is an effective germicide. Sprinkle a few drops of tea tree oil or tea tree oil dilution onto tissue and wipe toilet seat.

### **CUPBOARDS AND FILING CABINETS**

These can be refreshed by washing with a solution of 500ml hot water, a squirt of washing up liquid and 10-20 drops tea tree oil.

For stubborn stains use neat tea tree oil on a damp cloth, rub until stain diminishes or disappears - (do a patch test first if on polished wood, or on any surface liable to damage).

### **CUPS**

Brown stains on cups and mugs can be removed by applying 2 drops of tea tree oil to cup, dip damp cloth into salt and clean by rubbing directly onto stained area.

### **DISHCLOTHS**

Rinse through with 250ml hot water, 1 tablespoon white vinegar and 20 drops of tea tree oil. Hang over rail to dry.

### **DISHWASHING WATER**

Cups and mugs washed in lukewarm water in an office environment can be a breeding ground for germs. Add few drops of tea tree oil to dishwashing water. Rinse well and dry on a tea cloth that is boil washed and changed daily.

### **HAND CLEANER**

One bar of soap between office staff can pass on germs. Sprinkle 1 drop of tea tree oil onto soap and wash hands. 1ml tea tree oil can be added to every 100ml of liquid soap. Shake before using.

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### **HUMIDIFIER**

During the winter months, colds and flu are responsible for more lost productivity than any other single factor. A small humidifier in the office with 5+ drops (depending on size of humidifier) can help kill germs and make the office more comfortable for people with colds.

### **INSECT REPELLENT**

Tea tree oil is an effective insect repellent. Mix 3-4 drops of tea tree oil to 3-4 drops of citronella oil. Apply to damp cotton wool ball, leave or hang by window, hang fragrance sack by the window or see 'Reviver'.

### **KEYBOARD CLEANER**

Apply neat tea tree oil to a soft cloth, rub to remove stains like pen, sellotape residue etc. Patch test initially, it may damage some plastics.

### **LUBRICANT**

Tea tree oil is an effective lubricant for squeaky chairs, hinges etc. Apply 1 drop to problem area.

### **PEN CLEANER**

As a pen cleaner apply tea tree oil on soft cloth and rub clean (patch test).

### **REVIVER**

In a cup of hot water sprinkle 2 drops lemon oil and 2 drops of niaouli oil - inhale aroma - label cup "Aromatherapy cup". Also a useful insect repellent if left by an open window.

### **RUBBER/ERASER MARKS**

Rubber marks on floors and eraser marks on desks can usually be removed with a few drops of tea tree oil, on a soft damp cloth, rubbed into the mark.

### **SELLOTAPE RESIDUE OR GLUE REMOVER**

Glue residue left on desks and office equipment can be unsightly. Wipe over with a few drops of neat tea tree oil on a soft cloth or kitchen towel. Patch test.

### **SPONGE (FINGER/ENVELOPE) MOISTENER**

The sponge is an ideal place for germs to breed. Rinse through with solution for dish clothes. Wipe inside holder with tea tree solution also.

### **TELEPHONE FRESHENER**

Wipe over the telephone receiver with a few drops of tea tree oil on a soft cloth, to eradicate germs (patch test and dilute as necessary).

## **CHAPTER 8: HEALING PREPARATIONS**

BEFORE USING ANY PREPARATIONS A SENSITIVITY TEST MUST BE DONE

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### TEA TREE OIL SUPER ANTISEPTIC HEALING CREAM

20gms EMULSIFYING WAX  
40ml CALENDULA (*Calendula officinalis*)  
20ml WHEAT GERM OIL (*Triticum vulgare*)  
30ml FLORAL WATER i.e. Rose water  
3ml TEA TREE OIL (*Melaleuca alternifolia*)  
1ml MANUKA OIL (*Leptospermum scoparium*)  
2ml LAVENDER OIL (*Lavandula angustifolia*)  
2 Dessertspoons CLEAR HONEY  
3ml grapefruit seed extract (GSE) or 5ml citricidal

Sterilise 3 x 50ml glass pots or toiletry pots. Melt the wax with the calendula and wheat germ oils, in a double saucepan or a microwave (to melt in a microwave use only a toughened 1.5 litre Pyrex glass jug because of the high temperature of the melted wax). Use the protection of an oven glove even for microwave melting. Keep children/pets out of the kitchen, hot wax can burn.

Warm the rosewater, grapefruit seed extract and honey until the honey is melted, mix well, carefully dribble slowly into the oil mixture, stirring or whisking all the time and keep stirring until it cools. Add tea tree, manuka and lavender oils when just warm, and stir well until 'creamy' and cool. Put into sterilised pots, replace lid, label and date. Store in a cool, dark place and use within six months. If curdling occurs, at any stage, warm mixture (i.e. stand mixing bowl in a bowl of hot water and stir 'cream' until smooth. This cream promotes healing and helps to prevent scarring.

FOR AN EASIER VERSION: 75gms of emulsifying ointment can be used (available large chemists) melt over a low heat add the honey, stir until just warm, add the essential oils, tea tree, manuka, and lavender, stir until cool and store in a sterilised jar.

### BODY BRUSHING TO IMPROVE CIRCULATION

Body brushing is very beneficial; it can actually encourage the body to release impurities. In the case of oedema, arthritis etc. body brush every day for seven days and then every week.

Use a natural bristle, body brush or a coarse flannel. Using firm but comfortable strokes brush the body from the shoulders, back, chest down to the waist, then up from the feet, ankles, calves, thighs, buttocks, stomach to diaphragm, brushing every part of the body. Then brush the diaphragm clockwise in a circular motion. This will not only release impurities, but it will help circulation too. Step into warm bath with 6 drops tea tree oil and a

## **Those Amazing Tea Tree Oils**

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handful of Epsom salts added to water, soak for 20 mins, pat dry and apply body lotion. To maintain healthy body, dry brush once per week.

See MINERAL SPA BATH – page 103

BRUISE BAN 1 For Unbroken Skin.

1 dessertspoon distilled Witch Hazel  
3-5 drops tea tree oil (*Melaleuca alternifolia*)

Mix together and apply lightly onto the area as soon as possible after knock occurs. Apply a covered ice pack or a cold compress.

BRUISE BAN 2 For Broken Skin

Mix 5ml *Calendula officinalis* oil and 5ml St John's Wort oil (*Hypericum perforatum*) with 5 drops tea tree oil. Mix well, chill and apply to site, cover with gauze, wrap in cling film. Apply cold compress. Keep elevated if possible. Do not expose area to strong sunlight during treatment.

BURN SALVE

75gms Cocoa Butter  
30ml *Calendula officinalis* oil (macerated)  
10ml Wheat germ Oil (*Triticum vulgare*)  
10ml Runny Honey (warmed)  
30ml Aloe Vera Gel (*Aloe barbadensis*)  
3ml Lavender Oil (*Lavandula angustifolia*)  
2ml Tea Tree Oil (*Melaleuca alternifolia*)  
1ml Grapefruit seed extract (GSE) or 2ml citricidal

Melt the cocoa butter in a double saucepan or in the microwave. Warm the calendula and wheat germ oils, beat or whisk into the cocoa butter with the honey. When just warm beat in the aloe vera gel, grapefruit seed extract and the essential oils, continue to beat until cool. Store in an airtight, sterilised wide necked bottle in a cool, dark place. Use within 3 months. Shake well before use. Apply liberally to a cooled burn 2 times per day, cover with gauze, never sticking plasters, so that the air can get to the area and promote healing.

A Burn Ointment can be made by purchasing a 100ml emulsifying ointment, (available chemists) warming it in a double saucepan and adding the above essential oils + honey and stir until cool, bottle as above. See page 54.

PLEASE NOTE: All but minor burns must have medical attention.

## HEALING PREPARATIONS

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### CHEST VAPOUR RUB

- ADULT: 3 drops of tea tree oil and 1-2 drops Eucalyptus (*E. Smithii*) for every 1-dessertspoon petroleum jelly.
- CHILD: 1-2 drops tea tree oil and 1 drop niaouli (*M. viridiflora*) for every 1-dessertspoon petroleum jelly.

To warm the petroleum jelly, place in a sterilised glass jar, then place jar in a bowl of hot water, stir jelly until it starts to thin, add 1 drop of oil at a time mixing well. Store in the airtight jar, label, date and use within 3 months. Use by rubbing a small amount onto chest when required. Always patch test. For sensitive skins or young children, put the drops of oil onto a cotton cloth, instead of rubbing onto the chest and tie cloth firmly, near, but out of reach.

### COMPRESS COLD

To make a cold compress soak a flannel, a small hand towel, or cotton wool wrapped in gauze, in water and ice cubes. Wring out and apply to area as directed (replace when warmed). For emergencies keep a couple of flannels in the ice box - rinse flannel in cold water, store in a plastic bag in the freezer, use as required over the top of a cotton cloth. Sprinkle on lavender for sunburn.

In the case of chronic heart disease or diabetes, consult your GP initially, before using a cold compress or ice pack.

### COMPRESS HOT

Soak flannel, small hand towel or gauze wrapped cotton wool in hot water and apply to area as directed (replace when cool).

See HEAT PACK – page102

### CUCUMBER EYE POULTICE

For tired, gritty eyes or for those that are puffy and sore-the CUCUMBER EYE POULTICE offers relief. Never use essential oils on or near the eyes.

Peel approx. 5cm of cucumber, chop and mash, cut two muslin squares 15 to 20cm squares. Apply half of the mashed cucumber to each square, fold corners 'in' to make a sack, tie. Place one sack on each eye, and put a small piece of cotton wool along each cheek to catch drips.

\*Adding 1 teaspoon of chopped or dried Calendula petals (*Calendula officinalis*) helps to guard against infections.

DEEP HEAT RUB. - For aching muscles etc.

1 x 5ml teaspoon PETROLEUM JELLY  
2 drops KANUKA OIL (*Kunzea ericoides*)

## **Those Amazing Tea Tree Oils**

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1 drop CAJUPUT (*M. leucadendron*)

1-2 drops EUCALYPTUS (*E. Smithii*)

To warm the jelly place in a sterilised glass jar, place jar in a bowl of hot water, stir well until thinned, add oil 1 drop at a time to jelly, mix well and rub well into the affected area and apply a gentle heat pad. Always patch test before use. Avoid sensitive skin.

### HAEMORRHOID CREAM

Mix together 1 drop geranium oil (*Pelargonium graveolens*), 2 drops tea tree oil and 2 generous teaspoons cold cream. Apply small amount twice per day.

### HAEMORRHOID GEL

Mix together 1-2 teaspoons aloe vera gel and 1 drop tea tree oil, apply to area on gauze, wipe off surplus.

### HAEMORRHOID OINTMENT

Heat 50gms lesser celandine leaves (*Ranunculus ficaria*) in 100ml grapeseed oil (*Vitis vinifera*), leave overnight. When ready to mix the ointment, strain through muslin and heat. Heat 30gms emulsifying wax over a low heat in a saucepan or in the microwave - you must use a large heatproof glass jug, oven gloves and keep children/pets away. Dribble in the warmed grapeseed oil carefully and stir until just warm, add 1ml tea tree oil and 5 drops geranium oil store in a sterilised jar. Apply twice per day.

Cold witch hazel and tea tree water (available from essential oil stockists) can be applied with cotton wool to the affected area. Subject to patch test.

### HEAT PACK

Half fill a hot water bottle, Wrap in hand towel or put cover on and apply to area or use a commercial heat pad. For moist heat, wrap in a damp towel. Never have the heat pack too hot.

### ICE PACK

For an emergency ice pack, a pack of frozen peas is very effective (do not re-freeze afterwards for culinary use) or keep a bag of crushed ice, ready-made, in the freezer, break up granules and put in a large plastic bag (depending on injury). Knot the end, wrap in a cotton cloth or towel and apply to the area for about 20 minutes.

Please consult doctor - if you have heart disease or diabetes, to ensure that you are able to safely use ice packs.

### MINERAL SPA BATH

Whilst running the bath dissolve 1-tablespoon of honey under the hot tap - (be very careful if you have young children or pets - do not run all hot water

## **HEALING PREPARATIONS**

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into a bath first). Add a handful of sea salt, a tablespoon Epsom salts, 4 drops tea tree oil and a bouquet garni of Herbs, either homemade or buy 'tea bag' style. If you have dry skin or suffering from sunburn, a tablespoon of powdered milk or oat 'milk' and 4 drops of lavender oil, can be added too. Relax in the mineral spa bath for 10-20 minutes. Fresh Herbs from the garden can also be used.

### 'OATMILK' SOOTHER

For overly dry skin, sunburn, burns or eczema apply the soother twice per day. Grind 1-cup whole oats to powder, tip into a large bowl, add 3 cups of hot water and stir - leave for 5 minutes. Pour into a fine plastic sieve or muslin and strain until liquid has drained through (push through with spoon until you have about 1 cup of liquid). Pour liquid into a small blender and turn to the fastest setting, dribble in 35ml *Calendula officinalis*, 10ml wheat germ oil (*Triticum vulgare*) and 1-dessertspoon clear (warmed) honey. Add 10 drops tea tree oil and 3ml grapefruit seed extract. Pour into a dark glass jar, label and date. Keep in the refrigerator and use within 1 month. Do not apply too much as it 'coats' the skin. Ideal for overnight application, or as face pack (avoid the eye area). \*Put oat pulp into plastic container and use in hot oat poultice or face pack. Freeze or use within 5 days.

### POULTICE HOT 'OATMEAL'

Poultices are useful for drawing out impurities and relieving aches and pains. Depending on the size of area put 1 to 2 cups of ground whole oats into a large bowl, pour on 3 to 6 cups of hot water, stir and leave for 5 minutes. Drain and retain liquid in separate container to make "oat milk soother" (or use in your bath to nourish skin). Keep the 'pulp' for the poultice. For every cup of oat pulp add 1 - 2 teaspoons of English mustard powder (less if too hot for your skin or if you have sensitive skin). Add 5 drops of tea tree oil, mix well. Place gauze over infected area, warm the poultice, if cool to the touch, (either in microwave or double saucepan, not too hot or you will destroy the heat of the mustard). Spread over the gauze and apply a second layer of gauze on top. If this is to be used on sensitive skin use half teaspoon of mustard powder or less per cup and 1 drop of tea tree oil, mix well. Leave until cold to the touch. DO NOT use on sore or broken skin or on areas of eczema, psoriasis, sunburn etc.

### POULTICE HOT LINSEED

Crush 3 to 6 tablespoons of Linseeds, add enough boiling water to make a smooth paste. Add 3 drops of Cajuput oil, mix well. Apply gauze to area and spread over the gauze. Cover with a second piece of gauze and allow to go cold before removing. Do not use on sensitive skin.

## **Those Amazing Tea Tree Oils**

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### STEAM INHALATION

For colds, flu etc. a tea tree oil steam inhalation can be very beneficial. In a bowl or wash basin pour in 2-litres of steaming water. (Be very careful of small children, keep out of their reach). Sprinkle on 4 drops of tea tree oil, bend over the bowl and drape a large towel over your head and over the bowl to make a steam 'tent', close eyes and inhale through the nose and exhale through the mouth for 5 minutes. If too hot raise head and open towel until cooler. This will also give you a steam facial. Take advantage by rinsing face, pat dry and apply moisturiser. Do not go outside in cold air immediately after using a steam inhalation. Seek medical advice if suffering from asthma.

### TEA TREE INHALER

Take 2 teaspoons rock salt and place into a small airtight glass jar, sprinkle on a few drops of tea tree oil and depending on problem a few drops of another oil: Replace lid when not in use and replace salt or oil as necessary.

**For headaches: add 3-4 drops Lavender oil (*L. angustifolia*)**

**For colds and flu: add 3-4 drops of Niaouli (*M. viridiflora*)**

**For catarrh: add 2-3 drops of Eucalyptus (*E. Smithii*)**

### TEA TREE MINOR BURN OINTMENT

Melt 50gms emulsifying wax with 20gms cocoa butter, 20ml vitamin E oil or wheat germ oil (*Triticum vulgare*) and 30ml *Calendula officinalis* oil, in a double saucepan over a moderate heat, or in a heatproof glass jug in the microwave, always keep children well away. Warm and carefully dribble in (whilst stirring) 2 teaspoons honey, stir until just warm, add 5ml lavender oil (*Lavandula angustifolia*), 1ml tea tree oil. Pour into a sterilised glass jar, label, date and use within 3 months. Apply 2 times per day to a burn and cover with a gauze dressing. Never cover with a plaster or a waterproof/air proof dressing. See GLYCERINE OINTMENT p54. See BURN SALVE – p100

### TEA TREE OIL EARPLUGS

An infection after swimming is quite common; if possible make your own earplugs for use while swimming. Use one teaspoon of petroleum jelly, 1 drop of tea tree oil and 2ml coconut oil, and two small wads of cotton wool (each about a bit bigger than a large hazelnut). Mix the warmed petroleum jelly and the tea tree and coconut oil together, apply to both pieces of cotton wool. Gently apply cotton wool like a 'plug' to each ear. After swimming remove and wipe away excess.

### TEA TREE OIL SALVE

Mix together 1-desertspoon of \*water based gel or \*aloe vera gel to 4 drops of tea tree oil. Apply to area as necessary. \*Both available from chemist.

## **HAIR CARE PREPARATIONS**

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### CREAM CONDITIONER NORMAL/DRY HAIR

To condition dry hair there is nothing better than a "Mayonnaise" type conditioner.

Put 1 egg yolk in a blender (save white for other preparations). Blend on high, dribble in 5ml wheat germ oil (*Triticum vulgare*), 10ml olive oil (*Olea europaea*), 3 drops tea tree oil blend until creamy. Apply to hair and rub well into scalp, wrap in cling film (low in plasticisers), a supermarket carrier bag or a shower cap, put large towel on top, around head and leave on for 20-30 minutes. Rinse well in warm water. It is better to let hair dry naturally. Pasteurised eggs are the safest to use raw.

For normal hair leave on for 5 minutes. Rinse hair well in warm water, add 1 tablespoon cider vinegar to final rinse.

### GREASY HAIR CONDITIONER

Beat 1 egg white until frothy, 5ml lemon juice, beat in 1-2 drops tea tree oil and 10ml jojoba (*Simmondsia californica*) massage into hair for 5 minutes. Rinse out with just warm water and add a tablespoon of vinegar or lemon juice to the final rinse. Pasteurised egg whites are the safest to use.

### DANDRUFF TREATMENT

Mix 6 drops tea tree oil with 10ml olive oil, rub into scalp, massage well and wrap towel around head for 15 minutes, then rinse well. Shampoo (see below) and rinse. Repeat twice a week for 2 weeks then once a week.

WASH COMBS, BRUSHES, SLIDES ETC. IN A SOLUTION OF TEA TREE OIL.

To make a 'natural' dandruff shampoo, purchase an unperfumed pH balanced shampoo, (Health shops). Add 3ml tea tree oil per 100ml of shampoo. Shampoo as normal but leave on hair for 5-10 minutes before rinsing. More than 3ml may 'thin' the shampoo, if this happens add 1-2 good pinches of salt and mix, it should thicken again.

See HAIR CARE – page106

### HEAD LICE SHAMPOO

Chemical head lice shampoo has been linked to cancer. To make a 'natural head lice shampoo' purchase an unperfumed, pH balanced organic shampoo from health shops and add 5ml tea tree oil per 100ml of shampoo, or 5 drops in a teaspoon (5ml) of shampoo, mixing well (up to 10 drops per 5ml can be used – subject to age and sensitivity). Add enough shampoo to hair to make

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a lather, massage into scalp, leave on for 10 minutes, rinse and repeat, rinse well and in final rinse water add 1 dessertspoon cider vinegar. If the amount of tea tree oil you put into the shampoo 'thins' the mixture, add a couple of good pinches of salt and mix well to thicken it again. This should only be used when head lice are present, not for prevention. See CHAPTER 9 – page 146

### SCALP RUB - FOR GENERAL HAIR CARE

To keep your hair in tip top condition apply scalp rub once a week.

#### DRY/NORMAL HAIR.

Beat together 15ml Kukui oil (*Aleurites moluccana*), 1 drop tea tree oil, 5ml wheat germ oil (*Triticum vulgare*). Massage into scalp then rub in vigorously. Put on shower cap or cling film (low in Plasticisers). Wrap towel around head and leave on for up to 25 minutes. Shampoo and condition hair as usual, remember that dry hair does not tolerate dry heat very well.

#### GREASY HAIR.

Mix together 20ml Jojoba (*Simmondsia californica*), 1 drop tea tree oil and 1 drop Lemon oil (*Citrus limonum*), apply as above. In the final rinse water, add 2 teaspoons of lemon juice or vinegar. Keep in a dark glass bottle.

#### EXCESSIVELY GREASY HAIR

Put a tablespoon of chopped rosemary leaves (*Rosmarinus officinalis*) and dried nettle leaves (*Urtica dioica*) into a jug, add boiling water, mix and allow to steep. When just warm measure out 100ml of strained liquid and add 50ml tea tree water (hydrosol) and 20ml cider vinegar mix and rinse through hair in the final rinse, rub well in and dry hair.

### SHAMPOO - FOR GENERAL HAIR CARE

Add 5 drops tea tree oil to every 100ml of ordinary organic pH balanced (preferably unperfumed) \*shampoo from health shops. This will keep your hair in tip top condition. \*You can use 100ml of baby shampoo add 5 drops, for shining, manageable hair (3-drops per 100ml for older children).

## **FACE CARE PREPARATIONS**

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### ACNE TREATMENT

A facial sauna - twice a week can be beneficial, put 1-2 litres of steaming water into the bathroom basin, (out of the reach of children). Throw in 1 teaspoon each of the following: dried lavender flowers, dried chervil, dried sage and 2-3 drops tea tree oil. Stir and hold face comfortably over the steam for 10 mins.

Apply the following lotion: Mix 1-tablespoon distilled witch hazel, 50ml tea tree floral water (hydrosol), and 2 drops manuka oil, shake well. Cleanse the skin 1-2 times per day depending on severity of condition. Shake well before each use. Avoid the eye area.

Apply acne treatment oil, twice per day, on cotton wool. To make: mix, 10ml vitamin E oil, 50ml jojoba, 3ml tea tree oil, 5 drops lavender oil.

### AFTERSHAVE BALM

For a soothing aftershave balm, add 1 drop of tea tree oil to 20ml aloe vera gel. Mix and store in a sterilised glass airtight container for up to 1 week.

### AFTERSHAVE OIL

Add 3 drops of tea tree oil, 1 small drop of peppermint oil, 20ml grapeseed oil and 25ml jojoba. Store in a 50ml sterilised glass jar. Label, date and use within 3 months. This is cooling and easily absorbed. (Never use any type of mint oil neat on the skin, over a large area, or in the bath). To use massage 2-3 drops of the mixed oil into the skin.

### CLEANSING OATMILK ALL SKIN TYPES

Grind 5 dessertspoon of whole oats, tip into a jug, add 250ml tepid water and stand for 5 minutes-stirring often. Strain through fine mesh sieve. Collect the 'milk,' add 3 tablespoons tea tree water and 1ml grapefruit seed extract (2ml citricidal) to every 100ml milk and 1 tablespoon of vegetable glycerine. Keep in the refrigerator until needed - use within 7 days.

To use - stir/shake well and pour 10ml into small basin. Using fresh piece of cotton wool each time, smooth over the face with firm strokes. Avoid getting into eyes-wring cotton wool out well before cleansing eye area.

### LEMON CLEANSER FOR GREASY SKIN

Use 1 egg white, beaten until frothy, then beat in 1 teaspoon of lemon juice, 1 teaspoon of glycerine and tea tree water. Use or discard cleanser within 3 days, cleanse skin. Keep in refrigerator but beat well before use.

### FRESH CLEANSING BALM FOR GREASY SKIN

Blend 1 egg white and add 1 teaspoon of cider vinegar. Whisk in 30ml hydrosol (tea tree water), 30ml glycerine, 5ml aloe vera juice. Pour into sterilised airtight jar. Use within 5 days. Store in a refrigerator. Use 10ml at room temperature.

### RICH CLEANSING BALM FOR DRY AND VERY DRY SKIN

Blend 1 egg on high. Mix together the following oils: 20ml jojoba, 20ml evening primrose oil and 1 drop of tea tree oil. Stir well and dribble into egg mixture

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while blending on high. Pour into a sterilised, airtight jar, label, date and use within 3 days, beat well before use. Store in a refrigerator. Pasteurised eggs are the safest to use.

### QUICK CLEANSER FOR ALL SKIN TYPES

Mix 1 tablespoon each of tea tree water, lavender water and glycerine, shake well and cleanse skin by; diluting as necessary with cooled boiled water dip a clean piece of cotton wool, in mixture and clean face and neck, avoiding eye area. Splash area with cold water.

NB: Baby oil is good for removing eye make-up.

### FACE PACK EXTRA DRY - MATURE SKINS

Mix 100ml blackcurrant oil, 10ml avocado oil, 20ml jojoba and 2 drops tea tree oil, 1 drop palmarosa oil. Store in a sterilised dark glass bottle, label date and use within 3 months. Pour 20ml into bowl, warm to just above hand hot. Take a piece of cotton wool 15cm by 30cm, saturate the face side with the oil mixture, and tear out holes for eye and nasal area. Lie back with head on a couple of large towels. Protect eyes with 2 cucumber eye poultices or two pieces of cucumber and dry cotton wool. Place cotton wool pad over face and relax for 20 mins, or until cold. Cleanse and moisturise as normal.

### FACE PACK DRY AND NORMAL SKINS

Place 1 egg yolk into a bowl. Whisk with a hand held whisk or in a liquidiser, dribble in warmed 30ml grapeseed oil, 5ml vitamin E oil and 1 drop of tea tree oil, whisk in 1 dessertspoon carrot juice, apply to face, neck and body. Leave on for 15 minutes. Remove with warm soapy water. Avoid eye area. Pasteurised egg yolks are the safest to use.

### LEMON AND CLAY FACE PACK GREASY SKIN ONLY

Purchase some powdered green clay from the chemist. Put 2 tablespoons in bowl and add 1 teaspoon lemon juice, add enough tea tree water to make a soft paste. Apply to face and neck, leave 10-15 mins. Wash face and cleanse with Chamomile skin freshener.

NB: You can substitute cornflour for clay, it is not as effective, but would replace in an emergency.

### FACIAL EXFOLIATING CREAM ALL SKIN TYPES

Add 1 teaspoon ground whole oats to every 2 dessertspoons of cleanser. Rub into face and/or hands to remove dead skin cells. Avoid eye area.

### FACIAL SAUNA NOT FOR PEOPLE WITH BROKEN VEINS (ROSACEA)

In a bowl or bathroom basin, half fill with steaming hot water. Sprinkle on 3 drops of tea tree oil and 1-2 drops of lemon oil. Place a large towel over your head and around bowl to make a steam 'tent'. Close your eyes and let vapours drift up onto face, opening clogged pores.

## FACE CARE PREPARATIONS

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### CHAMOMILE SKIN FRESHENER FOR GREASY SKIN

Put 1 chamomile tea bag into 100ml of hot water, leave until cold. Add 1 dessertspoon of cider vinegar. Use to remove face pack from greasy skin.

### SKIN FRESHENER FOR NORMAL SKIN

Take 3 sprigs of fresh rosemary or 1 rosemary 'tea (Herb) bag' and steep in 250ml boiling water until cold. Strain and add 1 tablespoon of fresh lemon juice and 1 tablespoon tea tree floral water. Pour into sterilised bottle, cork, label and date and use within 7 days. Shake before use.

Apply to skin with cotton wool to remove traces of cleanser and tone up skin. Avoid eye area.

### THERAPEUTIC SKIN FRESHENER FOR DRY/NORMAL SKIN

Blend 5ml of fresh carrot juice, 15ml strained fresh orange juice, 15ml vegetable glycerine, and 30ml lavender water (hydrosol). Use to remove make-up. Avoid sensitive eye area, baby oil can be used as an eye make-up remover.

### THERAPEUTIC FACE PACK

Mix 3 tablespoons natural (salt and sugar free) instant oat cereal with 3 table-spoons of hot water or enough to make a thick paste. Blend together two pitted apricots, 1 tablespoon carrot juice, 1 tablespoon aloe vera juice, allow to stand. When the oat mix is just warm, blend both together. Spread liberally on to face, neck and shoulders if possible, leave on for 30 minutes and rinse off.

### LIP BALM

In a large glass Pyrex jug (heatproof). Melt 25g beeswax in microwave (Keep children/pets well away, hot wax can be dangerous). Melt for 3 minutes on high. If not melted give 1 minute bursts until all melted (or melt in a double saucepan). The wax does get very hot and also the handle of the jug, so use oven gloves when removing jug from the microwave oven.

Stand on folded tea cloth. Hold the handle, with oven gloves, and carefully stir with a wooden spoon. Dribble in 30ml warmed olive oil, and beat until nearly cool, add 5ml vitamin E oil, 10ml jojoba, 12 drops tea tree oil and 1-2 drops peppermint oil. Pour into small clean, sterilised pots, label, date and use within 6 months.

Or for an easier method, mix 50ml warmed (hard) coconut oil, add 5ml jojoba and the tea tree and peppermint oils as above. Mix well and allow to set. The coconut oil melts on the lips and is a very good moisturiser.

\*Add 1-2 drops of natural red food colouring for tinted lip balm.

### LIP SALVE

Mix together a teaspoon of warmed petroleum jelly, 1 drop of tea tree oil and 2ml drops jojoba, stir until cool. Rub onto cracked and/or bleeding lips. Rub well in. Repeat as necessary.

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### MOUTHWASH ( Antiseptic)

Add 1 drop tea tree oil with to 10 drops coconut oil to 100ml warm water, whisk well and rinse mouth, guards against infection and keeps breath sweet.

### SOAP

When you have about 6-8 pieces of 'end of soap bars' place them all in a large bowl, add 10ml olive oil and either melt in a microwave or in a double saucepan. When melted and hot take from heat and stir well until just above blood heat. Add 10 drops tea tree oil, drop by drop and continue stirring - pour into mould - (a clay modelling mould, small jelly mould or even a cup). Allow to cool, turn out and use as necessary.

### QUICK TEA TREE SOAP

Add 1ml tea tree oil per 99ml pure liquid soap, shake well and use as a 1% tea tree anti-bacterial hand wash.

### SUNBURN TREATMENT

Excessive sun damage, should have medical treatment, red and/or flaky skin, due to the drying effect of the sun, can be helped by applying a mixture of the following: 1 dessertspoon each of aloe vera gel and jojoba, 1 drop lavender oil, twice per day. Use aloe gel only in eye area. Do not go out in sun until skin has healed.

\*Prevention\* - wear a sun hat or use total sun block for the face.

### TOOTHPASTE

FOR WHITER TEETH 1% dilution can be used.

Add 1 small drop of tea tree oil, diluted with coconut oil, to toothbrush, shake off surplus, add a pea-sized amount of your normal toothpaste and a pinch of bicarbonate of soda, clean and rinse mouth well. Use once a week to maintain whiteness. Tea Tree Toothpaste is available from good health food shops.

FOR STAINED TEETH

Add 1 small drop of tea tree oil, diluted with coconut oil, to toothbrush, shake off surplus, add a pea sized amount of your normal toothpaste, sprinkle on bicarbonate of soda and sea salt clean and rinse teeth as normal.

### DENTURE PASTE

Mix together 1 teaspoon bicarbonate of soda, 1 teaspoon salt, 2 drops tea tree oil, mix to a paste with lemon juice. Rub into dentures leave for at least 30 minutes or overnight, scrub with a toothbrush and rinse well, before wearing.

## **HAND CARE PREPARATIONS**

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### BARRIER CREAM

This is an ideal cream for people who do not like rubber gloves. It will protect hands while in water or when gardening- keep re-applying if hands are in water for any length of time and apply small amount when hands are dried. Use within 6 months.

35gms Bees Wax  
20ml Olive oil (*Olea europaea*)  
10ml Wheat germ oil (*Triticum vulgare*)  
30ml Castor oil (*Ricinus communis*)  
1ml Tea Tree oil (*Melaleuca alternifolia*)  
1ml Lavender oil (*Lavandula angustifolia*)

In a large glass heatproof jug, melt the beeswax with all the carrier oils in microwave (or melt in a double saucepan). Keep children away because wax and oil can get very hot and can burn badly. Melt for 3 minutes on high, then if needed, 1 minute bursts until melted. Remove from heat (using oven gloves or tea towel around handle of jug or saucepan). Stand on a heatproof non-slip mat and whisk constantly until cooled. Add the tea tree and lavender oils, mix well. Pour into a sterilised pot and leave by the sink. Before you do the washing up rub in a generous teaspoon of the cream. Also beneficial after gardening.

### GRANDMA'S BARRIER CREAM

Melt 75gms pure lard in the microwave or in a double saucepan, add 2ml tea tree oil and 2ml lavender oil, beat until cool and a cream forms, spoon into a sterilised wide neck jar and use as above. Use within 2 months.

### DRY SKIN REMOVER

Roughly grind 1 tablespoon of whole oats. Add to 1 teaspoon cleansing cream or liquid soap. Rub into hands as if washing them, for at least 1 minute, rinse with tepid water and apply hand cream.

### HAND AND BODY CARE CREAM

50gms Emulsifying Wax  
10gm Cocoa Butter  
40ml Almond Oil (*Prunus amygdalus dulcis*)  
20ml Macadamia Nut Oil (*Macadamia ternifolia*)  
25ml Jojoba (*Simmondsia californica*)  
50ml Lavender Water (*Lavandula angustifolia*) or Rose Water (*Rosa spp.*)  
1ml Tea Tree Oil (*Melaleuca alternifolia*)  
10 drops Palmarosa Oil (*Cymbopogon martini*)

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3ml Grapefruit seed extract (5ml Citricidal).

In a large glass heatproof jug melt the wax and cocoa butter in a microwave, 3 mins on high, then 1 minute bursts until fully melted, (or use a double saucepan). Keep children and pets out of kitchen. Remove from the heat, using oven gloves. Stand on a heatproof, non-slip mat, add the warmed almond oil and macadamia nut oil stirring consistently, dribble in the warmed lavender water (you can substitute rose water if preferred), stirring all the time until just warm, but not beginning to set. If the mixture separates stand jug in a bowl of hot water stirring constantly to smooth the mixture. Keep stirring or whisking until cooled. Finally, add the jojoba, tea tree and palmarosa oils drop by drop, beat until cool, store in sterilised glass jar, use within 6 months.

### NAIL CONDITIONING OIL

30ml Blackcurrant Seed Oil (*Ribes nigrum*)

15ml wheat germ oil (*Triticum vulgare*)

1ml tea tree oil (*Melaleuca alternifolia*)

Wash hands well. In a jug, mix blackcurrant seed, wheat germ and tea tree oils. Stand in warm water to warm the oils and soak nails for 20 minutes. Pat dry with tissues or kitchen towel to remove surplus, try not to wash hands for at least 1 hour. Cover dish to save, and repeat every day for five days.

\*\* Evening Primrose Oil (*Oenothera biennis*) can replace *Ribes nigrum*.

## **BODY CARE PREPARATIONS**

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### AFTER SUN SPRITZER

Put 1 teabag and 1 chamomile teabag in a cup, pour on boiling water and allow to steep until cool. Discard teabags. Pour into a spray container, and add the following; 1 dessertspoon warmed runny honey, 25ml vegetable glycerine, 7-10 drops tea tree Oil, 15 drops lavender Oil. Dribble in 10ml jojoba and 10ml calendula oil. Shake well. Label, date and store in the refrigerator, shake bottle very well before each use. Spray liberally after sunbathing. Use within 7 days.

### AFTER SUN SOOTHER DELUXE

Mix together: 10ml kukui oil, 10ml avocado oil, 5ml vitamin E oil, 5 drops lavender oil, 5 drops tea tree oil. Shake well and apply as required.

### ANTI-CELLULITE CREAM

20gms Emulsifying Wax  
\*20gms Anhydrous Lanolin  
50ml Grapeseed Oil (*Vitis vinifera*)  
3 drops Tea Tree Oil (*Melaleuca alternifolia*)  
3 drops Lemon Oil (*Citrus limonum*)  
4 drops Sweet Fennel Oil (*Foeniculum vulgare*)

Melt wax and lanolin in a heatproof jug in the microwave or in a double saucepan. (Keep out of reach of children). Warm the grapeseed oil and beat into the melted waxes. Beat well, when just hand hot, stir in the essential oils. Beat until cool and pour into a wide necked sterilised jar (wipe around with 3 drops of tea tree oil). Label, date and use within 3 months.

\*If allergic to lanolin, omit and use extra emulsifying wax. Or, purchase an over-the-counter 'base ointment' (100gm) and add the essential oils.

Dry brush the area with a natural bristle brush and get into a warm bath, pat dry, massage in cream vigorously to problem areas. Wrap gauze and then in cling film (low in plasticisers), not too tight and go to bed. Within 6 - 12 weeks, treating problem areas every, or nearly every day, there should be an improvement. Do not use on face, sensitive, sore or broken skin.

**DIET CHANGE:** Drink plenty of fluids, herb teas and filtered water, with plenty of fresh, organic fruit and vegetables. Avoid caffeine and salt.

### ANTI-CELLULITE OIL

Mix together: 50ml grapeseed oil, 5 drops kanuka oil, 2 drops lemon oil, 1 drops rosemary oil. Store in sterilised, airtight bottle, label and use as above. Do not use on the face. If irritation occurs, discontinue use.

## Those Amazing Tea Tree Oils

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### BATH OIL      FOR DRY SKIN

100ml Fractionated Coconut Oil (*Cocos nucifera*)

5ml Tea Tree Oil (*Melaleuca alternifolia*)

3ml Sandalwood Oil (*Santalum album*)

Sprigs of fresh Rosemary

Mix oils together, pour into glass bottle, add sprigs of rosemary (make sure that the oil covers the herb, label, date. Mix 5ml oil with a cup of full fat milk and add to bathwater. CAUTION: Oils in the bath or shower will make them slippery.

### OATMEAL 'MILK' BATH

Grind 3 cups of whole oats, Make a bag of muslin 15cm x 10cm. Put the oatmeal into the muslin 'bag'. Either sew a tape to it to hang over the tap so water runs through it, adding 'oat milk' to the water or sew across top for use in the bath, as an 'oatmeal sponge'.

### BODY EXFOLIATING RUB

25gms Kelp Powder.

20gms Salt.

25gms Ground Whole Oats.

Mix together, store in a clean airtight jar. To use, stand in bath and firmly rub over skin to exfoliate. Bathe as normal, adding kelp and Epsom salts to bath.

### BATH SALTS

Fill a large sterilised glass jar with course sea salt or rock salt, sprinkle a few drops of your favourite essential oils and replace airtight lid. Keep by bath and add a handful each time you run a bath.

### BODY LOTION

Put a whole egg into blender and blend at high speed, dribble in 50ml almond oil, 10 ml wheat germ oil, 10 drops tea tree oil and 2ml grapefruit seed extract, while still blending. Blend until smooth, bottle, label, and date. Store in a refrigerator. Use within 1 week. Pasteurised eggs are the safest to use.

### OATMEAL BODY PACK

To use the 'pulp' from all of the oatmeal 'milk' preparations why not treat yourself to an 'oatmeal body pack'. It is a little sticky but a mud bath is too and this also is very therapeutic for your skin.

## **BODY CARE PREPARATIONS**

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Take-2 litres of 'oatmeal' pulp, either from the freezer, thaw and warm or make fresh with 8 cups whole oats and one cup of wheat germ, grind to a fine powder in a blender or coffee grinder attachment to the liquidiser. Put into a bowl, pour on 1 litre of boiling water, add more as necessary to make a thick paste stir, cool and add:

- 10ml Evening Primrose Oil (*Oenothera biennis*)
- 1ml Tea Tree Oil (*Melaleuca alternifolia*)
- 1ml Lavender Oil (*Lavandula angustifolia*)

Stir well - if too "stodgy" add more hot water. If too liquid add more ground oats until you have the right consistency. Cool until warm.

Stand or sit in an empty bath, apply the body pack all over feet, legs, buttocks, stomach, chest, back, arms, shoulders and neck. Relax until cool.

Shower or run bath and rinse off the oat pack, take care, the bath or shower may be quite slippery.

*It is better if you only do this if you have a shower attachment to your bath otherwise it can be quite difficult trying to run a bath with a body pack on, alternatively your partner could help.*

Apply body exfoliating rub, shower, pat skin dry and apply body lotion.

### OATMEAL EXFOLIATING RUB

Grind a cup of whole oats to powder, mix with 50gms ground nuts, and 1 teaspoon maize flour/cornmeal (optional). Rub over body to remove dead skin cells. Do not use on face or delicate skin. See BODY EXFOLIATING RUB – p114

### SUNTAN OIL

This suntan oil has no (or little) sun screen factor classification - use only when you have conditioned your skin to the sun. Do not use with sensitive, easily burnt skins, for children or for babies.

- 20ml Fractionated Coconut Oil (*Cocos nucifera*)
- 20ml Hazelnut Oil (*Corylus avellana*)
- 10ml Macerated Carrot Oil (*Daucus carota*)
- 20ml Vitamin E Oil
- 70gms Cocoa Butter
- 5 drops Sandalwood (*Santalum album*)

Heat the cocoa butter, coconut and hazelnut oils in a double saucepan (or microwave) until melted, but not too hot. Whisk until cooled but not set, add the carrot oil, vitamin E oil and sandalwood, whisk again until cool. Store in a sterilised wide neck bottle, label and date, use within 3 months. Shake before use, apply often and liberally when sunbathing. Do not over stay in the sun.

## **FOOT CARE PREPARATIONS**

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### ANTI-BLISTER

Soak cotton wool with 5ml of witch hazel and apply to heels and sides of little toes twice per day to harden the skin and prevent blisters. Beneficial before breaking in new shoes or going on holiday (extra walking).

### ANTI-FUNGAL OINTMENT ATHLETE'S FOOT / RINGWORM

35gm Emulsifying Wax	5ml East Cape Manuka Oil
50ml Calendula officinalis	2ml Tea Tree Oil
5ml Black Walnut 4:1 tincture	5ml Wild Yam 4:1 tincture

Heat the wax over a moderate heat, in a double saucepan (or in the microwave with 2 minute blasts on high) until melted. Always keep children and pets away, the wax can reach very high temperatures and should be handled with care. Stir well to cool, when just hot, stir in the warmed Calendula infused in olive oil, beat well. When just warm, but not set, add the essential oils and tinctures, beating well in. When cool store in a wide necked, sterilised jar. Use as required, apply 3 times per day to infected area, always cover the ringworm between applications with gauze. Use within 6 months. NB - Alternatively, buy an over the counter base ointment, add the essential oils, tinctures and 20ml calendula, beat until cool, store and use as above.

### COLD CUCUMBER AND MINT FOOT SOOTHER

This is ideal for hot sweaty feet and swollen ankles.

Blend 1 cucumber (room temperature) until pulped. Put into large bowl and add 3-4 drops of peppermint oil (*Mentha piperita*) and 3 drops of tea tree oil mix well. Place bowl of tepid water by the side of the cucumber bowl and have towel ready. Put feet into bowl of cucumber, rub into ankles and top of feet. 'Soak' for 10 minutes, 'wash' feet in bowl of water, pat dry with towel, massage in oil mix of 10ml cold grapeseed oil, 1 drop of peppermint oil and 3 drops of tea tree oil. Wrap feet in towel and elevate legs (above heart) for 20 minutes. This is very soothing after work on a hot summer's day.

Never use any type of mint oil 'neat' in the bath or on the skin.

### CRACKED SKIN TREATMENT FOR FEET

Soak feet in shallow bowl of warm water with 5 drops of tea tree oil, pat dry - apply following preparation twice per day. Mix together 30ml evening primrose oil (*Oenothera biennis*) and 12 drops of tea tree oil, apply to the area 2-3 times per day. Dribble onto area and 'fill' cracks with antiseptic cream – page 99.

If symptom persists or feet are very painful see a chiropodist.

## FOOT CARE PREPARATIONS

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### DRY SKIN RUB

- 1 tablespoon Cornmeal (made from Maize)
- 1 teaspoon powdered Kelp
- 1 teaspoon salt

Apply dry skin rub after a bath or soak feet for 20 minutes in a bowl of shallow warm water and 5 drops of tea tree oil, dry area well. Rub powder into soles, between toes and heels to remove dead skin. Do not rub too hard or use on broken or cracked skin as this powder is quite abrasive, rinse and massage in either hand and body lotion or warm foot oil. Only to be used on the feet.

### SUMMER FOOT COOLER

Mix 1 drop tea tree oil, 1 drop peppermint oil (*Mentha piperita*), and 10ml grapeseed oil. Massage into the soles of the feet. If you suffer from swollen ankles due to the heat, using upward strokes massage the oil into the ankle/problem area. Wash hands after use.

Do not use over a large area, this preparation is for feet and ankles only.

Do not use on the face.

### WARMING FOOT OIL

Mix 10ml warmed grapeseed oil, 2 drops tea tree oil, 3 drops cajuput (*Melaleuca leucadendron*). Vigorously massage the mixed oil into clean feet. Wrap feet in a warm towel and relax for 30 minutes. Wash hands after use.

## MISCELLANEOUS

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### FRAGRANCE PILLOW

For a quick-no sew- fragrance pillow you will need:

A quantity of small foam pieces (or cut up enough old clean tights as possible to fill half a pillow case)

2-3 15cm x 10cm Plastic Bags

4-6 tablespoons Fullers Earth

An Ordinary Pillow Case

30cm x 30cm Zipped Cushion Cover

3ml Tea Tree Oil (*Melaleuca alternifolia*)

3ml Lavender Oil (*Lavandula angustifolia*)

Divide the 'Fullers Earth' equally between the plastic bags - sprinkle on the oils and knot the bags (polythene allows the fragrance to escape), pack half the pillow case with foam/tights and place 'fragrance' bags into the middle of the (half) pillow and pack foam/tights around them.

Fold the pillow case over so only half is used, place inside zipped cushion cover. Refresh the 'Fullers Earth' as necessary, open polythene bags and sprinkle more essential oils onto the contents (renew the polythene bags to prevent leaking).

### POTPOURRI

Small Pumice Stone Pieces

(Seeds and stones can be

Dried Peach Stones

painted with natural food

Dried Seeds

colouring for added effect)

Dried Pips

\*Fullers Earth Granules

\*(Cat litter-can be dyed

Dried Nuts/Nut Shells

with natural food colouring)

Dried Citrus Fruit Peel

Wood Shavings / Chipped Bark

Small Dried Leaves

Cardamom Pods

Small Dried Flowers

Dried Spices i.e. Cloves, Cinnamon Sticks, Vanilla Pods etc.

Choose your favourite mixture or use most readily available ingredients. Put chosen mixture into an airtight container; add Orris Root (from chemist) use 1 tablespoon per cup of mixture. Sandalwood can be used as a fixative, 5ml sprinkled onto 4-5 cups of mixture. Mix well, cover and store for around 4 weeks in airtight box, use as required. Sprinkle on your favourite aromatherapy oils i.e. Lemon oil. To top up aroma or use blends for relaxation etc.

### SHOE FRESHENERS

Fill 10cm x 15cm - length (the feet) from two pairs of old clean tights (use doubled so you have just one pair), put a plastic bag inside each 'foot' and fill

## MISCELLANEOUS

with potpourri or 'Fullers Earth' (see ASHTRAY FRESHENERS) and add 10 drops of tea tree oil and 10 drops of lavender oil to each 'shoe freshener'. Tie with a ribbon and drop into each shoe. Perfect for storing shoes and boots, they will keep your cupboards fresh too.

### TEA TREE OIL PESSARIES

Pessaries are very simple to make, first you need a pessary mould available from specialist shops. Melt 35gms cocoa butter or hard coconut oil in a glass dish in the microwave (or in a double saucepan over moderate heat), stir to cool, add 2 drops Sandalwood (*Santalum album*), 5 drops tea tree oil and 1 drop niaouli oil, stir well and pour into mould and allow to set. Use chilled or pessary will soften at room temperature. Store in a sterilised jar in refrigerator for up to 3 months. Use as required, twice per day (subject to a patch test), for thrush, vaginitis etc. insert with pessary applicator, available from chemists.

If irritation occurs, discontinue use.

### WOOD POLISH

For floors and furniture

#### LIGHT WOOD

50gms Beeswax  
250ml Linseed Oil (warmed)  
50ml White Wine Vinegar (warmed)  
5ml Tea Tree Oil (warmed)  
5ml Lavender Oil

#### DARK WOOD

50gms Beeswax  
200ml Linseed Oil (warmed)  
50ml Walnut Oil (warmed)  
50ml Brown Vinegar  
5ml Calendula Oil.  
5ml Tea Tree Oil

In a large 1 litre heatproof glass jug melt the beeswax in a microwave (or double saucepan) on high in two minute bursts until melted. (Do keep children and pets out of the kitchen, the hot wax should be handled carefully). Use an oven glove or tea cloth to grip jug handle, the melting wax can reach a very high temperature. Dribble in the linseed oil (walnut oil if dark wood polish), stirring constantly. Add the vinegar drop by drop. Stir well. Stir until blood heat. Add essential oils, stir and pour into lidded wide necked container or plastic container. The 'polish' must be cold before the airtight lid is closed.

Use as required. This polish has a natural 'insect repellent' fragrance.

See Wood Polishing Duster - page 66.

## CHAPTER 9 : A-Z FIRST AID APPLICATIONS

### CAUTION

100% PURE TEA TREE OIL *MELALEUCA ALTERNIFOLIA*, MUST BE USED. IF THERE IS ANY DOUBT TO THE QUALITY - DO NOT USE HERE. Make sure that the label displays 1,8 CINEOLE CONTENT 5% OR LESS AND THE TERPINEN-4-OL CONTENT 37% OR HIGHER (Only this should be used unless specifically stating a high Cineole oil). A high Cineole Tea Tree oil should conform to Australian Standard of less than <15% 1,8 Cineole and more than 30>% Terpinen-4-ol. Check that the oil is fresh and well within the expiry date.

NB: If you suffer from skin sensitivities or are using on young or elderly it is best to use only a fresh, low cineole tea tree oil, at the lowest dilution listed and a neutral carrier oil i.e. Fractionated COCONUT OIL (*Cocos nucifera*) substitute in place of the listed carrier oils.

The constant use of essential oils (above 2% dilution), over the course of several weeks, without a break, is not recommended.

The (approximate) percentage of a 'DILUTION' is measured by the number of drops of essential oil on a 5ml teaspoon and then topped up with a carrier.

For example 1% dilution is measured by placing 1 drop essential oil on a 5ml teaspoon, topped up with carrier and mixing well and so on.

2% is 2 drops of essential oil on a 5ml teaspoon and then topped up with a carrier.

10% is 10 drops of essential oil on a 5ml teaspoon and then topped up with a carrier.

25% is 25 drops of essential oil on 5ml teaspoon and topped up with carrier.

50/50 or 50% is 50 drops (2.5ml) of essential oil on a 5ml teaspoon and topped up with a carrier and can also be 1 drop of essential oil and 1 drop of carrier mixed.

To store tea tree dilution (diluted in oil or branded goods in their own bottle) put mixture in a suitable sized, sterilised, dark glass bottle with airtight lid. Always label and date bottle, store out of the reach of children, use within 3 months. Store in a cool dark place.

The essential oils and carrier oils used in this chapter should have the botanical names above displayed on each respective label. Do not use old, out of date oils.

The percentages below should be used for home use, if you need a higher concentration you must seek the advice of an aromatherapist.

PEOPLE WITH A SERIOUS MEDICAL CONDITION SHOULD SEE AN AROMATHERAPIST

Everyone **MUST** do a sensitivity test before using ANY essential oil for First Aid applications. Apply a drop of chosen oil (or dilution) to the back of the wrist cover with a plaster.

If no reaction after 24-48 hours, it should be safe to use as specified.

\*To patch test a child, pet, or any person from the list above use the maximum dilution for the person, after 24-48 hours, if no reaction, it should be safe to use at the required dilution percentage.

PLEASE READ NOTES ON PAGE 6 BEFORE USING THIS SECTION  
IF SYMPTOMS PERSIST CONSULT DOCTOR



### ***ABDOMINAL PAIN*** (adults only)

Persistent acute abdominal pain should have a medical diagnosis as soon as possible. For period pains or diagnosed aches the following may help:

Mix 3 drops TEA TREE OIL (*Melaleuca alternifolia*), 2 drops, NIAOULI (*Melaleuca viridiflora*) and 10ml CASTOR OIL (*Ricinus communis*), massage gently in a clockwise motion, cover with gauze and then cling film (make sure cling film is low in plasticisers), place hot water bottle with medium heat on top and relax. High cineole tea tree oil may be used (avoid sensitive skin).

Or place a gentle heat pad on abdomen and another to the lower back area, either commercial or homemade. See STOMACH CRAMPS – page 168

\*\* 1-2 drops peppermint oil (*Mentha piperita*) can be used in place of niaouli.

If pain persists or becomes worse, seek medical attention.

### ***ABRASIONS***

Grazes, scratches, minor cuts, scrapes etc. In an emergency, 1 drop of tea tree oil in a person's own saliva on a small area is okay as long as a patch test has initially been carried out. On the young or the elderly, a dilution as below should be applied.

For cuts and scratches, clean well with a mixed solution of: 3-4 drops TEA TREE OIL on half a teaspoon sea salt, add to 200ml of warm water (continue to stir or agitate well while using to disperse the oil).

For scrapes and grazes soak pad of cotton wool in above solution, drag gently across abrasion, from middle to edge, to remove debris by the shortest route. You may need tepid, gently running water for stubborn debris. Either hold over a bowl and flood the area with the tea tree oil solution or use a sterilised eye bath (on skin only - not for around eyes) depending on size of wound.

When clean dab area with cotton wool and a few drops of 2% to 5% TEA TREE DILUTION (2-5 drops TTO per 5ml of carrier - i.e. GRAPSEED OIL - *Vitis vinifera*) and cover. If still bleeding, apply pressure for a few minutes. Dress the wound if necessary and put a few drops TTO DILUTION onto the dressing. Bathe and change the dressing twice per day. Kukui nut oil (*Aleurites moluccana*) can be used as the carrier oil in place of grapeseed oil; it has its own unique

healing properties and helps to prevent scarring. NB The area may be best left without a dressing (to heal and 'dry' naturally), as long as it is not still bleeding, it is not constantly being knocked or rubbed by clothing etc. Apply TEA TREE DILUTION 1-2 times per day. Seek medical advice if wound is deep or over a large area or debris is buried in wound.

See CHAPTER 8: ANTISEPTIC HEALING CREAM – Page 99

## ***ABSCESS/BOIL***

On the young or elderly or if the abscess is large, seek medical attention.

### **IF ABSCESS OR BOIL IS ON THE BODY**

Apply high dilution of TEA TREE OIL (25%, 1-4 TTO and carrier) 2-4 times per day. A warm compress may help, (a warm wet flannel, folded into quarters, with 4-5 drops of diluted TEA TREE OIL to surface - place over abscess) repeat compress daily (or use pad of cotton wool as below) until it shrinks or bursts. Then follow instructions for abrasions. If irritation occurs or the abscess continues to grow bigger, consult a medical practitioner. High cineole tea tree oil may be used on the body in the case of an abscess or a boil.

See CHAPTER 8: POULTICE – page 103

### **IF ON FACE**

A doctor should be consulted and a warm compress made from: a piece of cotton wool approx. 4cm square, wrapped in gauze and soaked in mixture: 5-10 drops TEA TREE OIL (depending on skin sensitivity) in 5ml teaspoon topped up with GRAPESEED OIL (*Vitis vinifera*). Apply 2-3 times per day, leave until cool. Or just apply a few drops of the mix to the area. If irritation occurs dilute or discontinue use.

### **ABSCESS IN MOUTH**

Consult your dentist for an emergency appointment. Apply 1 drop of 25% dilution of TEA TREE OIL (subject to age and sensitivity) to area twice per day until the appointment. Do not apply a heat pad in this area.

\*An abscess in the ear canal needs urgent medical advice from a doctor or a casualty dept. Do not apply heat unless it is advised.

\*Preventative\* Keep skin clean, especially folds of skin, bathe any minor wounds as abrasions. Use TEA TREE OIL bath and TEA TREE OIL mouthwash once per week.

## ***ACHES AND PAINS***

Massage in a little of the following mixture: 2 drops TEA TREE OIL, 2-3 drops NIAOULI (*Melaleuca viridiflora*) in 10ml cold pressed CASTOR OIL (*Ricinus communis*) and apply heat pad (see arthritis p124). High cineole tea tree oil may be used. Do not use on sensitive skin or near eye area.

See CHAPTER 8 – Deep Heat Rub – Page 101

## ***ACNE***

Using a cotton wool bud, dab a TEA TREE DILUTION (mix 1 drop TTO to 5 drops JOJOBA (*Simmondsia californica*) and 4 drops of COCONUT OIL (*Cocos nucifera*), onto the raised white lumps twice per day. If you experience tingling that is uncomfortable or have sensitive skin, mix 1ml TEA TREE OIL with 10ml COCONUT OIL and 10ml JOJOBA. Shake well before use, wet face with warm distilled water and dab on oil twice per day.

NB A 5% - 10% low cineole TEA TREE OIL DILUTION (5-10 drops TTO, depending on sensitivity, to 5ml carrier) can be used on the inflamed areas if the acne covers a large area of skin. If no improvement after 14 days or irritation occurs, discontinue use.

\*GRAPSEED OIL (*Vitis vinifera*) can be used in place of Coconut oil, and Manuka oil (*Leptospermum scoparium*) may be used in place of TTO.

\*Preventative\* Add 1ml TEA TREE OIL to 100ml of neutral cleanser, shake well before use and cleanse face 1-2 times per day. Use within 3 months.

See CHAPTER 8: ACNE TREATMENT – Pages 107

## ***ANAL FISSURES***

Mix 1-5ml 'low cineole' TEA TREE OIL with 50ml carrier oil (or 3 drops on a 5ml teaspoon topped up with a carrier i.e. GRAPSEED OIL (*Vitis vinifera*) and apply 1-2 drops of mix to area on soft tissue paper. Before each bowel movement lubricate area with petroleum jelly, afterwards wipe and reapply tea tree mix. To store the tea tree oil mix: pour into a sterilised, airtight, dark glass bottle, label, date, and store in a cool dark place, use within 3 months.

\*Prevention\* Make sure your diet has enough fibre. Eat at least 3 large portions of vegetables and 2 portions of fresh fruit per day. Drinking up to 3 litres of water, spread over the course of a day, can also help.

\*If not healed within 2 weeks or very painful, consult a medical practitioner.

See CHAPTER 8: HAEMORRHOID TREATMENTS – Pages 102.

## ***ANAL ITCHING***

Mix 1-2 drops of TEA TREE OIL and 10ml carrier oil i.e. CALENDULA OIL (*Calendula officinalis*) and apply to area on soft tissue paper. (Calendula may stain clothing). DO NOT SCRATCH AREA YOU COULD SPREAD AN INFECTION.

\*If symptoms persist, seek medical attention.

## ***ARTHRITIS***

### **OSTEO-ARTHRITIS:**

A gentle massage of the affected joint may be beneficial for easing some of the pain. Mix together 5ml (1 teaspoon) Almond oil (*Prunus amygdalus var dulcis*), 5ml (1 teaspoon) JOJOBA (*Simmondsia californica*), 1-2 drops TEA TREE OIL, 1-2 drops KANUKA OIL (*Kunzea ericoides*), 2-4 drops CAJUPUT (*M. leucadendron*) depending on sensitivity. Start with 2 drops Cajuput per 10ml of carrier and gradually increase to an amount that gives the most benefit without causing irritation. If irritation occurs, discontinue use. \*High cineole tea tree oil can be used.

### **RHEUMATOID ARTHRITIS**

A brief massage of the affected area may be beneficial for pain relief: mix together 5ml (1 teaspoon) GRAPESEED OIL (*Vitis vinifera*), 5ml JOJOBA (*Simmondsia californica*), 1-2 drops TEA TREE OIL, 2 drops KANUKA OIL (*Kunzea ericoides*) and up to 2-5 drops NIAOULI (*M. viridiflora*) depending on sensitivity. Start with 2 drops Niaouli per 10ml of carrier and gradually increase to an amount that gives the most benefit without causing irritation. High cineole tea tree oil can be used.

\*Warm compresses may help to ease some of the pain.

Dip an appropriate sized compress into a basin containing 200ml of (just stirred) warm water, 3-5 drops FRANKINCENSE (*Boswellia carterii*) and 2 drops KANUKA OIL, wring out until just damp and apply to area, cover with a piece of cling film (low in plasticisers), leave until cold, repeat if necessary and pat dry.

\*Some people may find good results with a cold compress. If you did not find the heat particularly helpful, try using cold water next time, to find the best treatment that suits you as an individual.

Run bath with 3 tablespoons Epsom salts and soak for 10-20 minutes.

See CHAPTER 8: SKIN BRUSHING TO IMPROVE CIRCULATION - page 99  
EFT may be helpful for pain relief. See [www.emofree.com](http://www.emofree.com)

## ***ASTHMA***

Asthma sufferers should be very careful when using essential oils. They should consult a qualified practitioner who will be able to test for an allergic reaction to specific oils. Advice will be given on which oils to use, if any.

A bowl of hot water, placed safely, in a room with 3 drops of TEA TREE OIL and 1-3 drops CAJUPUT (*Melaleuca Leucadendron*) may be beneficial. Do not inhale directly without medical advice, but allow vapours to fill the room.

\*Peppermint oil (*Mentha piperita*) or Eucalyptus oils may be substituted for the Cajuput if preferred. (Not in the case of babies or young children).

See CHAPTER 7: DUST MITES – p 62. See CHAPTER 8: WOOD POLISH – p 119

## ***ATHLETE'S FOOT (Tinea pedis)***

*Tinea pedis* is a fungal infection of the feet. The flesh between the toes becomes wet, flaky and quite itchy. Toenails can also become infected.

Bathe feet in a bowl of warm water containing 2 dessertspoons salt and 4-8 drops of TEA TREE OIL for 10 minutes, dry thoroughly. Boil wash towels daily (or use disposable), do not share towels or socks etc.

Massage a 20%-40% TEA TREE OIL DILUTION (20 to 40 drops TTO on a teaspoon topped up with a carrier i.e. OLIVE OIL) between the toes and around the nails 2 times per day. (Adults only).

A very good mixture of oils for Athlete's Foot is 1ml TEA TREE OIL and 2ml MANUKA OIL (*Leptospermum scoparium*) - mixed with 20ml OLIVE OIL (*Olea europaea*). Apply as above, store in a dark glass, labelled bottle in a cool dark place. If the high dilution of tea tree oil causes irritation, discontinue use.

\*Prevent re-infection.\*

- 1) Try to keep feet as cool and dry as possible (dry very well in-between toes after washing). A 2% tea tree oil dilution is a good preventative measure, apply in-between toes at night.
- 2) Wash feet as above after going bare foot in public places.
- 3) Wipe around inside of shoes with a couple of drops of tea tree oil on a damp cloth to kill any fungal spores.
- 4) Wash socks daily during infection and soak in solution of TEA TREE OIL (8ml to 1 litre) and 1 tablespoon salt to kill fungal spores
- 5) Boil wash towels regularly.
- 6) Always remove dead skin from between toes, it harbours infection.

See CHAPTER 8: ANTI-FUNGAL OINTMENT – page 116

See CHAPTER 8: FEET page 116-117

**B*****BACKACHE***

Backache covers a multitude of complaints. You must see your GP for a qualified diagnosis before trying the applications below for relief.

As a general guide, back pain (without impact damage to area) resulting from prolonged standing, muscle cramps, lifting heavy objects, wearing high heels, over stretching and fatigue may be relieved by the following;

\*Relax in a warm bath with 4 drops of TEA TREE OIL and 4 drops LAVENDER OIL (*Lavandula angustifolia*).

\*Lie on a firm bed (or carpeted floor) face down, put a small pillow or pad under waist/tummy for support. Perhaps a friend could massage a few drops of the following mix of oils into the affected area: 5 drops TEA TREE OIL, 5 drops NIAOULI (*Melaleuca viridiflora*), 2 drops CAJUPUT (*M. Leucadendron*) and 15ml CASTOR OIL (*Ricinus communis*) apply a gentle heat pad. Castor oil may be mixed 50/50 with coconut oil for a 'lighter' carrier.

See CHAPTER 8: TEA TREE OIL POULTICE – page 103

See CHAPTER 8: DEEP HEAT RUB – page 101

\*Make sure that your mattress gives your back the support it needs.

\*Always 'roll' out of bed carefully, turning onto your side, towards the edge, slowly swing your feet towards the floor, while using your hands on the edge of the mattress to walk yourself into an upright sitting position. Your arms will take the strain not your back.

\*For acute pain attacks and inflammation, a TEA TREE ice pack and gentle massage of area may help to reduce swelling. Massage a mix of 2 drops of TEA TREE OIL, 3-4 drops CAJUPUT (*M. leucadendron*) and 5ml CASTOR OIL or JOJOBA into affected area, cover with a layer of gauze or cotton cloth and apply a bag of crushed ice, for about five minutes. Ice is not to be used with anyone suffering from heart problems or diabetes. Repeat for two days as necessary. If pain spasms continue, seek medical advice.

***BAD BREATH***

If bad breath persists, there may be a medical or dental problem, seek medical

advice.

TEA TREE OIL is the perfect antidote for bad breath. Not only does it kill the bacteria and yeast, responsible for bad breath, it can also inhibit plaque build up and whiten teeth. There are many tea tree oil products available by mail order or in your local chemist. See page 110.

\*If you need a quick breath freshening rinse, put 1 drop of diluted TEA TREE OIL into 100ml of warm water, mix well, swish around mouth and rinse well.

## **BEDSORES**

Bedsore can occur anywhere on the body, especially where there is constant pressure. The most common places are buttocks, heels and elbows of bedridden patients. Apply a 2%-5% dilution of TEA TREE OIL 2-3 times per day. (2-5 drops on a teaspoon topped up with carrier oil i.e. CALENDULA (*Calendula officinalis*) or ST JOHN'S WORT (*Hypericum perforatum*).

\*Prevention\* Turn patient as often as possible. Change sheets every day. Rub massage oil into areas twice daily before sores appear - [Massage oil: 15ml CALENDULA (*C. officinalis*), 5ml WHEAT GERM OIL (*Triticum vulgare*), and 2-4 drops TEA TREE OIL].

See CHAPTER 8: BODY BRUSHING TO IMPROVE CIRCULATION –page 99

## **BITES -ANIMALS**

In the UK, we do not yet have the killer disease rabies, but there is still a risk of infection from bites. You should seek medical advice as soon as possible.

If the skin is broken sprinkle TEA TREE OIL dilution immediately and cover - the quicker the better and seek medical advice. For smaller puncture wounds, bathe the area for 5 minutes with a solution of: 5 drops TEA TREE OIL onto 1 teaspoon salt stirred into 250ml of warm water. If the wound is still bleeding, cover with gauze (which has 4 drops of 5% dilution TEA TREE OIL sprinkled onto it). If there is no bandage handy, apply dilution to your hand and press firmly against the wound). (1 drop TTO to 20 drops of carrier = 5% dilution). Elevating the wound above heart (if possible) and applying ice pack to bandage can help to stop bleeding. When bleeding has stopped cover with a clean, dry bandage. Seek medical attention as soon as possible.

If bitten whilst abroad, flood the wound with diluted TEA TREE OIL and go immediately to hospital. If there is an ice pack to hand, even a pack of frozen peas, it may slow down absorption of infection whilst travelling to hospital.

5% to 100% tea tree oil may be used, depending on location and sensitivity of person or area. NB: Only use a higher percentage on small, deep puncture wounds, not on larger bites where the flesh is torn. Seek medical advice.

### ***BLACKHEADS***

After a patch test, soak flannel in 100ml warm/hot water with 5 drops TEA TREE OIL mixed with 1ml JOJOBA (*Simmondsia californica*) stir solution well before soaking. Squeeze out excess water from flannel and apply to area for 2 minutes, gently rub - repeat twice daily - use TEA TREE OIL face pack and sauna - pages 108-109 once per week to prevent re-occurrence. Avoid: the eye area when using essential oils and stretching delicate skin around the eyes.

See CHAPTER 8: ACNE TREATMENT – page 107 and 123

### ***BLISTERS***

Blisters are a small sac of serum (a constituent of blood) under the surface of the skin. They can be the result of burning, chafing, rubbing, scalding or infection.

Gently apply a few drops of the following mixture: 1 drop TEA TREE OIL in half a teaspoon (2.5ml) of CALENDULA OIL (*Calendula officinalis*) around area and over blister. You can make a felt ring (doughnut shaped) for comfort, especially for blisters on the feet and areas that are pressure points.

If the blister bursts try to keep the 'roof' on, it is Nature's plaster.

### ***BOILS***

See ABSCESS – page 122

### ***BRONCHITIS***

If you suffer from asthma or allergies and suspect you have bronchitis, you must first see a doctor, and only use essential oils under the strict guidance of a qualified aromatherapist.

As soon as you feel that characteristic 'tightness' gargle with 1-2 drops \* TEA TREE OIL in 50ml warm water (mix well each time). Have a TEA TREE OIL steam inhalation twice per day with 1-2 litres of hot water, 3 drops TEA TREE OIL and 2-3 drops CAJUPUT (*M. Leucadendron*). Place head over bowl and trap the steam with a large towel over head. Close eyes and breathe in through mouth and out through the nose. If the steam is too hot and uncomfortable, raise head and open towel a little or wait until water is cooler. Do not go outside immediately after an inhalation. \*High cineole tea tree oil may be used.

For a chronic attack a steam inhalation every 2 hours may be beneficial. Medical attention and advice is needed for a chronic attack.

Rub chest morning and night with the following mix of oils: 2 drops TEA TREE OIL, 2-3 drops CAJUPUT (*M. Leucadendron*) in 5ml GRAPESEED OIL (*Vitis vinifera*). Half the essential oils and increase carrier for children over 12 years, and for sensitive skin. If irritation occurs, discontinue use.

Younger children should see an aromatherapist. Always patch test initially.

\*EUCALYPTUS OIL (*Eucalyptus smithii*) can be substituted for CAJUPUT.

See CHAPTER 8: CHEST VAPOUR RUB – page 101

\*Contact your doctor if no improvement after 48hrs.

\*Contact doctor immediately if you are over 60, if you have bronchitis on top of another illness, if you are coughing blood, if you are experiencing chest pains, if you have a fever, or if you are short of breath.

## **BRUISES**

Use 1-2 drops TEA TREE OIL in 20 drops of CALENDULA OIL (*C. officinalis*) and apply an immediate ice pack on a limb or body injury that is likely to bruise. Not to be used on the face or around eyes. Cover area with layer of gauze or cotton cloth, apply an ice pack at 20 minute intervals, allow area to warm naturally. This should reduce inflammation and speed up the healing process. CALENDULA and ST JOHN'S WORT (*Hypericum perforatum*) oils may be mixed and used as a carrier.

After 24 hours apply a hot compress. This should help to dilate blood vessels and improve circulation to the area.

\*If you have children or a handyman in the family it may be to your advantage to keep a homemade ice pack in the freezer. Wet a face flannel with water, fold in half. Put it in a freezer bag and freeze. A handy ice cold pack for bumps.

The ice pack should be applied to the area on top of a layer of gauze or in an emergency a clean tea cloth would do. Or just wring out under cold running water and apply.

See CHAPTER 8: BRUISE BAN I & II – Page 100

## **BUNIONS**

A painful, inflamed swelling over an irregular big toe joint, the skin is usually shiny and red. Apply mix of: 2 drops TEA TREE OIL, 1 drop PEPPERMINT OIL (*Mentha piperita*) and 5ml JOJOBA (*Simmondsia californica*), on a cold compress (wash hands after use). Large bunions may need surgery.

\*Do not use mint oils neat on the skin or in the bath.

\*Prevention never wear shoes that are too tight, or subject feet to extreme hot and cold. \*After a working day or a long walk have a footbath with 1 litre of warm

water and 4 drops of TEA TREE OIL and dry thoroughly. Vigorously massage in a few drops of the following oil: add 4 drops TEA TREE OIL, 1 drop PEPPERMINT OIL (*Mentha piperita*) to 30ml GRAPESEED OIL (*Vitis vinifera*), to get the circulation going. Wash hands after use.

### **BURNS** (minor)

The most important thing is to cool the burn as soon as possible. Place area under cold water (gentle running water if possible).

All, but minor burns and minor scalds should have immediate medical attention. For larger burns: If clothes are stuck to the burn (or surrounding area) do not attempt to remove them yourself. Call an ambulance or go to casualty/ local hospital (after cooling burn, cover area in cling film for the journey).

A recent clinical paper suggests that a commercial cream containing tea tree oil may be detrimental to burn damaged skin. I have used tea tree oil (*Melaleuca alternifolia*) and have anecdotal evidence that very dilute TTO is safe to use, but it must be your choice, if you use TTO make sure that you have used it before with no ill effect. Dilute it with \*Calendula oil and do not use more than a 3% dilution on a fresh, cooled burn (3 drops TTO to 5ml of carrier). Kukui oil (*Aleurites moluccana*) may be used as the carrier oil. 2 drops of lavender oil can also be added. \*Calendula can be substituted with jojoba or aloe vera.

After cooling and treating a minor burn or scald, it is best left open, to heal. If dressing is needed, apply a lint free gauze dressing that has been sprinkled with the following mix of oils: 1 drop TEA TREE OIL, 2 drops LAVENDER OIL (*L angustifolia*), and a 5ml teaspoon of JOJOBA (*Simmondsia californica*). My daughter recently burnt her leg, I immediately splashed cold water on it, followed by lavender and Jojoba, it took all the pain out of the area.

Do keep the burn clean, if gauze becomes stuck to it, gently soak in 'just warm' salt water, DO NOT PULL, this will break the skin and delay healing.

DO NOT USE ADHESIVE DRESSING OR PLASTERS.

Do not use cotton wool, fibres may stick to the wound.

See CHAPTER 8: TEA TREE OIL BURN OINTMENT – pages 100 and 104

See Glycerine Ointment page 54, warm until melted to add lavender oil (2 drops per 5ml of ointment) and mix well.



### **CANDIDA ALBICANS**

See THRUSH – page 172

### **CATARRH**

Congestion can be alleviated by a steam inhalation: put up to 3 drops NIAOULI (*M. viridiflora*) into a bowl of steaming water or use 2 drops of EUCALYPTUS (*E. smithii*). Place a towel over head to make a "steam tent," close your eyes and breathe in through your nose, out through your mouth. Repeat for 5-10 minutes 2-3 times per day as necessary or use 8 drops TEA TREE OIL in bathwater or in a humidifier.

High cineole tea tree oil may be used.

#### *ALTERNATIVES:*

\*Wet a face flannel with hot water and sprinkle on 3 drops of TEA TREE OIL and drape over lower face, avoid eyes - breathe through the cloth for 5 mins.

\*Put 1-2 drops EUCALYPTUS in a cup of hot water and inhale.

\* Sprinkle a few drops of NIAOULI onto a tissue and place in a small plastic bag, clip open the bag and breathe the vapours deeply every few minutes. (Keep plastic bags away from young children).

See CHAPTER 8: CHEST VAPOUR RUB p101 & TEA TREE INHALER p104

### **CELLULITE**

The characteristic "orange peel" skin, which can affect thighs, buttocks, hips, even stomach and upper arms can be substantially reduced by using the following method over a period of 6-12 weeks.

\*In the evening before you bathe or shower do a body brush routine, and rub in anti-cellulite cream after washing. SEE CHAPTER 8 – page 113

\*Once a week have a mineral bath (warm water) with 25g Epsom salts, 25g powdered kelp, 8 drops TEA TREE OIL. Soak for at least 20 minutes. Rub in anti-cellulite cream or the anti-cellulite oil, as in CHAPTER 8 page 113

\*Every day rub in a few drops of mixture: 1drop TEA TREE OIL, 1 drop LEMON OIL (*Citrus limonum*) in 15ml GRAPSEED OIL (*Vitis vinifera*) to problem areas. Knead and pinch the skin for at least 10 minutes (not for those

with varicose veins or thrombosis, if in doubt, consult your doctor).  
Do not expose area to strong sunlight whilst using lemon oil regularly.

\*Change diet to include at least 3-5 servings of organic, fresh, raw or partly cooked vegetables and at least 2 servings of fresh, organic fruit per day.

Drink 3 litres filtered or pure spring water over the course of a day, also drink herb teas, fennel and orange blossom etc. replacing coffee, cola and tea.

## **CHAFING**

If you are prone to chafing or you are suffering from it now, rub both areas with a few drops of the following mix: 1 drop TEA TREE OIL and 1 drop LAVENDER OIL to every 5ml teaspoon CALENDULA OIL (*C. officinalis*) to afflicted area. To prevent, mix 1 drop of TEA TREE OIL to 20ml of Kukui oil (*Aleurites moluccana*) and apply to skin before chafing appears.

## **CHAPPED HANDS**

Remove dead skin cells with oatmeal rub and apply 1% TEA TREE OIL and CALENDULA OIL (*Calendula officinalis*) DILUTION (1drop TTO in a 5ml teaspoon Calendula). Also, use tea tree hand & body cream.

See HAND CARE – page 111 See CHAPTER 8: OATMEAL RUB – page115

## **CHAPPED LIPS**

Apply two drops of 1% oil mix: 1 drop TEA TREE OIL in a 5ml teaspoon of MACADAMIA NUT OIL (*Macadamia ternifolia*), to dry or cracked lips, blot and leave for at least 15 minutes before (and if) you apply lipstick etc.

Or, use the TEA TREE OIL lip balm in CHAPTER 8 – page 109

If lips become very sore and infected, apply a mixture of 5ml glycerine, 5ml petroleum jelly, 4 drops TEA TREE OIL and 1ml JOJOBA. Warm jelly and mix well to incorporate glycerine and oils. Mix until cool. Store, label and dab on a small amount, often.

## **CHICKENPOX BLISTERS**

Chickenpox, a common viral infection in childhood, is caused by the same *Herpes* virus that is responsible for shingles. The patient is often feverish with itchy spots that turn to blisters, which crust over with time.

The *Herpes* virus thrives on arginine but is blocked by L-lysine, both are amino acids and components of protein; they are available in many foods. Arginine rich

foods to stay away from include chocolate, sweetcorn, etc. L-lysine rich foods to eat more of during an attack include: chicken, cottage cheese etc. Taking 500mg L-lysine, 4 times per day in-between meals and last thing at night can help stop the itching and pain. Vitamin C supplements should also be taken. See practitioner for advice if you are pregnant or have kidney or liver disease.

TEA TREE OIL with anti-viral, anti-inflammatory and immune-stimulant properties can soothe itching and helps the healing process. Freedom from itching is invaluable for preventing scarring due to constant scratching.

### CHILDREN

Dab blisters with an oil blend using cotton wool: 2 drops TEA TREE OIL to a 5ml teaspoon ST JOHN'S WORT OIL (*Hypericum perforatum*). Aloe vera gel may also be used as a carrier. 8 drops of a 10% dilution of TEA TREE OIL sprinkled into the bath (10% dilution is 10 drops TTO to 5ml carrier).

NB: St John's Wort oil may react on the skin in strong sunlight.

### ADULTS

Dab blisters as above with the following oil: 3-5 drops TEA TREE OIL to 5ml ST JOHN'S WORT OIL. (1ml of vitamin E oil can also be included). Add 6 drops TEA TREE OIL and 2 drops NIAOULI when having a bath.

In the case of shingles, L-lysine can help. See above. Apply tea tree oil mix along the middle of waist and anywhere you feel pain or tingling, even before spots appear. For severe eruptions soak a clean hand towel in cold water, ring out, sprinkle with a few drops of diluted TEA TREE OIL mix, apply to area

NB: Lavender oil is also highly regarded for bringing relief. Add 1-2 drops to the mixtures as necessary.

3 drops NIAOULI (*M. viridiflora*) in a 5ml teaspoon ST JOHN'S WORT OIL added to bath may also help. Remember: oil can make baths slippery.

\*DO NOT APPLY ESSENTIAL OILS NEAR TO THE EYES.

See CHAPTER 8: TEA TREE OIL OATMEAL BATH – page 114

## CHILBLAINS

Chilblains are small painful swellings on feet and hands, which are frequently itchy. They are often the result of poor circulation and extreme cold.

Apply 3% TEA TREE OIL DILUTION in JOJOBA (*Simmondsia californica*) on a warm compress.

Give feet a regular, warming massage with a mixture of 1-2 drops CAJUPUT in 5ml KUKUI OIL (*Aleurites moluccana*). When and if you have reason to stand out in the cold, rub massage oil into feet, put on thick woolly socks, cover with cling film (low in plasticisers) not too tight, or a pair of knee high stocking socks (men included) then a pair of wool socks (thermal). This will help to keep the

warmth in your feet. Remember to keep moving up and down to keep the circulation going. For hands, wear mittens.

Make sure your diet includes lots of Vitamin C, E and zinc. Eat celery or drink celery juice and green leafy vegetables. Include olive oil and oily fish in diet. Nutritionists usually advise taking *Ginkgo biloba* to improve circulation. High cineole tea tree oil may be used, subject to a patch test.

## **CIRCULATORY PROBLEMS**

Massage is very good for increasing the circulation. So is exercise, i.e. walking or swimming. A healthy diet, rich in nutrients, is important too. (Citrus fruits, fish oils, dark green leafy vegetables, onions, and garlic, *Ginkgo biloba* and wheat germ are also beneficial). Avoid smoking and saturated animal fats.

Have a stimulating massage with a few drops of the following mixture:  
50ml ALMOND OIL (*Prunus amygdalus var. dulcis*), 2 drops NIAOULI (*M. viridiflora*), and 3 drops LEMON OIL (*Citrus limonum*).

## **COLDS AND FLU**

Viral infections are spread mainly by coughing and sneezing. The common cold (CORYZA) is a contagious infection of the upper respiratory tract.

Although we have yet to find a cure for the cold, tea tree oils can help to relieve many of the symptoms of colds and influenza by the following methods:  
(TEA TREE (*Melaleuca alternifolia*), NIAOULI (*M. viridiflora*) CAJUPUT (*M. leucadendron*), and EUCALYPTUS (*E. smithii*) are used for colds).

### **Start at the first signs for best results.**

**\*Steam inhalation\*** 1-2 litres of steaming water and 3 drops TEA TREE OIL. 2 drops NIAOULI or 1 drop EUCALYPTUS for adults. 2 drops TEA TREE OIL and 1 drop NIAOULI for children - (do not allow young children to do this or unattended older children, and do not use very hot water). Place head over bowl and breathe deeply, with eyes closed. Breathe in through the nose and out through the mouth. Place a towel over head (to form a tent) for maximum benefit. Do not go outside in cold air immediately afterwards.

**\*Gargle\*** with a mix of 1-2 drops of TEA TREE OIL, 100ml of warm water and 10ml glycerine to relieve a sore throat. \* See SORE THROAT.

Younger children may find it difficult to gargle.

\*Use TEA TREE OIL 'CHEST VAPOUR RUB' See CHAPTER 8 – page 101

**\*Humidify home** - particularly at night either with a humidifier or bowl of hot water and 3 drops of NIAOULI OIL (be careful of hot water with young children around). An electric vaporiser, out of the reach of children is the safest to have around a home. Or dip cotton wool balls into solution, wring but not too much.

Tie a length of cotton/string (30cm long) around one cotton wool ball on one end and around the other cotton wool ball on the other and hang over radiator, or wet face flannels in solution and drape over radiator.

OR

\***Mist-spray** the air - put 3-5 drops TEA TREE OIL and 1-3 drops NIAOULI into 250ml warm water, pour into an atomiser or plant mister, shake well before each spray and mist air. Especially good for public places.

\***At night** - sprinkle 1 drop of CAJUPUT onto 2 corners of your pillow. Or sprinkle 2 drops onto hot water in a labelled jug, just away from the bed. For children place on a tissue or cloth, well out of reach.

\***Have** a warm TEA TREE OIL bath with 8 drops of TEA TREE OIL. Make sure you keep warm. Try not to wash hair until the worst is over.

\***Saturate** 3-4 tissues with a few drops NIAOULI and put into a small plastic bag, inhale when needed. (Keep plastic bags out of reach of small children).

\***Massage** 1 drop LAVENDER OIL mixed with 20 drops GRAPESEED OIL into temples - dilute further for children and sensitive skin.

\***If your nose** is red and sore rub in a little CALENDULA (*C. officinalis*) OR vitamin E oil. Coat the nasal area before blowing your nose.

\* **Massage** your aching limbs with a mixture of 1 drop TEA TREE OIL, 1 drop CAJUPUT, 1 drop NIAOULI in 10ml ALMOND OIL (*Prunus amygdalus var. dulcis*). If irritation occurs discontinue use.

**Drink fluids:** lemon, blackcurrant, cranberry and citrus juices, or carrot and fresh orange juice mixed. Herb teas, especially rosehip; eat fresh organic fruit and vegetables; 'live' yoghurt etc. Practitioners sometimes recommend taking a good dose of vitamin C with bioflavonoids every 2 hours, at first signs. Ladies on the pill or HRT should not exceed 1000mg of Vitamin C per day, consult doctor if in doubt. Homemade chicken soup does help. New research suggests that a mixture of elderflower and elderberry extract can help to lessen the duration of a cold and also zinc lozenges sucked slowly. Natural Chinese cough medicine (Nin Jiom Pei Pa Koa) from a Chinese supermarket is very effective.

### **COLD SORES** (HERPES SIMPLEX I - HSV1)

These blister-like sores are very contagious. They can be spread to other parts of the body or to other people simply by touch. At the first signs of a cold sore appearing, dab on 6-10% TEA TREE OIL dilution using a cotton wool bud 3-4 times per day. (Dilute 6-10 drops TTO in 5ml JOJOBA).

Once infected, you will probably be prone to them through cold or heat to the area, make sure that you wear a sun block when in the sun, even if area is clear. Every time you use your toothbrush, rinse in very hot water and rub in a few

drops TEA TREE OIL after cleaning teeth, rinse well before use.

See CHICKENPOX BLISTERS in particular, L-lysine reference – page 132

## **COLIC**

A baby or child with frequent colic or colic like symptoms should have medical advice.

Weak fennel or dill water may help. In a sterilised heatproof container put 1 teaspoon dill or fennel seeds, pour on boiling water and allow to steep. Strain into a sterilised cup and allow to cool. Offer 2-3 small sips of the cooled water on a sterilised teaspoon.

A gentle warming massage with 30ml GRAPSEED OIL and 1 drop ROMAN CHAMOMILE OIL (*Anthemis nobilis*) may help. Gently massage abdomen and lower back; apply a gentle heat pad for a few minutes. Also, place child gently on your shoulder and give tender pats on the back for a couple of minutes. If crying persistently, seek medical advice.

## **CORNS**

A corn is an area of thickened, hard skin on the lower foot area. It can form an inverted pimple where the point presses painfully into the deeper layers of the skin.

It may take several weeks, but TEA TREE OIL can soften corns. After bathing, saturate a cotton wool bud or the tip of your finger with neat TEA TREE OIL, and completely saturate corn, cover with a plaster. Repeat night and morning. A 50% TEA TREE OIL and CASTOR OIL (*Ricinus communis*) dilution can be used, apply 3-4 times per day. Soak feet for 30 minutes and carefully cut the softened corn away or consult a chiropodist, treat as abrasions. Seed corns, usually on the soles of feet, can be prevented by applying a 2% TTO moisturising cream or lotion in the morning and at night. Add 2 drops TTO per 5ml, or 2ml per 98ml, of cream or lotion in bottle, shake well and apply a small amount to area.

See FOOT CARE – page 116

## **COUGHS**

A cough is a protective response to certain irritants and infections that 'disturb' the lining of the lungs. If symptoms persist, seek medical advice.

Gargle with 1-2 drops of TEA TREE OIL in 100ml of warm water (stir very well before each swig). Rub chest with oil mix of: 1-3 drops CAJUPUT (*M. Leucaden*

*dron*) in 5ml carrier oil.

Find your local Chinese supermarket, they usually have a variety of very effective 'herbal' cough medicines. Nin Jiom Pei Pa Koa is particularly effective.

### **CRACKED SKIN**

Cracked skin on hands and feet is quite common especially in winter. It can be painful and very unsightly. See Antiseptic Healing cream – page 99.

Mix 3ml TEA TREE OIL, 75ml CASTOR OIL and 20ml WHEAT GERM OIL, warm and soak area, on feet and/or hands, in oil twice per day. Cover with cotton socks and/or with cotton gloves, before going to bed.

If very painful, rub 5% TEA TREE OIL dilution into cracks on feet and apply petroleum jelly, cover-repeat twice per day. See Glycerine ointment – page 54.

**\*Prevention\*** Keep feet and hands moisturised, especially in winter, or if handling paper frequently. Add 2ml TEA TREE OIL to every 100ml neutral hand and body lotion, shake well before each use, and apply.

See CHAPTER 8: DRY SKIN PREPARATIONS – pages 99, 107-117

### **CRADLE CAP**

A scalp condition that affects young babies. Always patch test a small area initially for 48 hours to check for sensitivity. If in doubt, an aromatherapist should be consulted.

Mix together 1 drop TEA TREE OIL and 35ml OLIVE OIL (*Olea europaea*). Gently massage a few drops of the above mixed oil into the scalp. Leave on for 5-10 minutes then wash hair with baby shampoo. Repeat (if not cleared), but leave an interval of 5 days in between applications.

### **CRAMP**

Cramp can strike in many areas of muscle - thighs, calf, feet, shoulders, arms, stomach and wrist (writers cramp).

Mix 2 drops TEA TREE OIL, 1 drop CAJUPUT (*M. leucadendron*) to every 10ml CASTOR OIL, rub into the affected part vigorously until relieved, apply hot compress for a few minutes.

A good isotonic drink for athletes is half a glass of orange juice topped up with filtered water and a good pinch of salt.

See CHAPTER 8: DEEP HEAT RUB – page 101

## **CROUP**

Croup is a barking cough often caused by laryngitis. It is quite common in children up to 4 years of age. Do not confuse with wheezing, CROUP is a honking seal-like noise, caused by inflammation of the larynx. It usually occurs at night. Any difficulty breathing, or noisy breathing lasting more than a couple of minutes, should be reported to the doctor immediately or take directly to hospital. First aid for CROUP or until doctor arrives, is to take the child to a warm room and fill with steam - put 5 drops TEA TREE OIL AND 5 drops LAVENDER OIL (*Lavandula officinalis*) into steaming bowl/bath of water. Do not put child into the water, but let them breathe the vapours from a distance. Boil kettle or anything to add a lot of moisture to a warm (small) room. Never leave the child alone. Hold child gently but firmly and well away from hot water or steaming appliances to avoid accidents.

## **CYSTITIS**

This painful infection of the bladder affects women much more than men. It causes lower back pain, a burning sensation (as if passing very hot water), and frequent, painful urination. In severe or persistent cases, seek medical advice.

Drinking large amounts of water and cranberry juice/powder often relieves symptoms. Eat plenty of onions, garlic and plain 'live' yoghurt. If symptoms persist, seek medical advice.

TEA TREE OIL should NOT be taken internally

\*Make a solution of 2 drops TEA TREE OIL, 1 teaspoon COCONUT OIL, 2 teaspoons bicarbonate of soda and 250ml warm water, mix well. Using clean cotton wool each time - swab the area of vagina, always front to back.

\*Use 2 drops of SANDALWOOD (*Santalum album*), 1-2 drops NIAOULI (*Melaleuca viridiflora*) in 5ml jojoba in a 'sitz bath', (just enough warm water in bath to cover vaginal area, lie back with knees apart) or 3 drops of each in a bath. Wash with neutral, 'perfume-free' soap

\*Massage lower back and lower abdomen (twice daily) with 5ml GRAPSEED OIL (*Vitis vinifera*) to 2 drops of TEA TREE OIL and 1 drop SANDALWOOD. Apply gentle heat pad to areas.

**D*****DANDRUFF***

Hairdressers and dermatologists agree that dandruff is the single most common scalp complaint their clients have. TEA TREE OIL is very effective for clearing up this problem, depending on the severity of the condition, you can use it in a variety of ways.

For dry/normal hair, rub scalp with a mixture of 5ml OLIVE OIL (*Olea europaea*) and 3-6 drops of TEA TREE OIL leave on for 2 minutes and wash twice with your normal shampoo (to which you add 3ml of TEA TREE OIL per 100ml of shampoo). Use tea tree shampoo every week thereafter.

For greasy hair rub scalp with a mixture of: 5ml JOJOBA OIL (*Simmondsia californica*) mixed with 3-6 drops TEA TREE OIL, leave on for 2 minutes. Shampoo twice with normal shampoo (with 3-6ml of TEA TREE OIL added to 100ml of shampoo), leave on hair for at least 2 minutes, add a 5ml teaspoon of lime juice or vinegar to the rinsing water. Use tea tree shampoo every week.

0.5% to 10% TEA TREE dilution may be used depending on sensitivity of area or person and severity of infection.

See CHAPTER 8: HAIR – pages 105-106

***DENTURE SORES***

Rub infected area of gum with 1 drop of 3%-5% TEA TREE OIL DILUTION (3-5 drops tea tree oil in a teaspoon of fractionated COCONUT OIL, *Cocos nucifera*) twice per day. Clean dentures well, put a few drops of TEA TREE OIL in cleaning paste or make your own. SEE CHAPTER 8 – page 110, and clean all over dentures thoroughly, not just the 'teeth area', then rub a few drops of 10-25% TTO into every part of the removed denture.

Clean dentures with paste first, then soak for 30 mins or overnight, rinse very well. You can make your own denture soak: dissolve 1 dessertspoon salt in 100 ml hot water, stir to cool slightly, add 10 drops of TEA TREE OIL and add 2 teaspoons bicarbonate of soda, stir well.

Always patch test a small area of the dentures initially, tea tree oil may damage some types of plastic if used in a high concentration.

See CHAPTER 8: ANTISEPTIC MOUTHWASH – pages 110-111

## **DEODORANT**

TEA TREE OIL is an effective deodorant; it kills the bacteria responsible for body odour. Apply up to a 1%-2% dilution of TEA TREE OIL to area under arms. For a more feminine aroma, mix with LAVENDER OIL then add to carrier. Mix with grapeseed oil, glycerine, aloe vera or water-soluble gel.

## **DIABETIC SORES**

Diabetics should take particular care of feet and lower legs. Cracked infected skin and sores, even ulcers, are quite common. TEA TREE OIL does have some good results with these conditions.

Bathe the sores in warm, boiled water as for abrasions. Gently apply a mixture of: 5-6 drops TEA TREE OIL to 5ml CALENDULA OIL (*C. officinalis*) adding a little VITAMIN E OIL will assist healing, twice per day. Cover area with gauze, elevate legs every 3 hours, if possible, for 30 minutes.

### **\*Prevention\***

Apply TEA TREE OIL SUPER ANTISEPTIC HEALING CREAM – page 99, morning and night to feet and lower leg. Lightly massage in an upward direction, towards heart.

# **E**

## **EAR INFECTIONS**

A doctor should see ear infection as soon as possible. If a diagnosed minor infection and eardrum is intact, the following TEA TREE OIL applications can be beneficial: mix together 5ml warmed fractionated COCONUT OIL (*Cocos nucifera*) or OLIVE OIL (*Olea europaea*), 2 drops (1 drop for children) TEA TREE OIL. Use an ear dropper or apply on cotton wool and let 2 drops of oil mix drip into ear (never put dropper into ear canal). Tilt head for 3-5 minutes to keep the ear 'full' and apply a very gentle dry heat pad (a clean soft hand towel from a hot radiator would be ideal). Massage a few drops of the oil mix around the ear and along the bone behind ear. Repeat on the other side. See– page 104.

If the earache is thought to be from a throat infection gargle with 1-2 drops TEA TREE OIL in a glass of warm water. (Not for children).

## **ECZEMA**

Red, inflamed, irritated skin, rashes, flaky skin, itching and even small blisters

are mostly associated with eczema. It can be hereditary, the result of an infection or an allergic reaction. Test a small patch of infected skin first for 24 hours before you apply any remedy to a large area. Choose whichever method is effective for the particular problem. If you have an allergy to wheat or any of the listed carrier oils substitute them for fractionated COCONUT OIL (*Cocos nucifera*). If Tea Tree oil causes irritation, discontinue use. Only use fresh oils and a low cineole tea tree oil for eczema.

DRY, FLAKY ECZEMA AND CRACKED SKIN: try 1ml TEA TREE OIL mixed with 10ml CASTOR OIL (*Ricinus communis*), 10ml JOJOBA (*Simmondsia californica*) and 30ml KUKUI OIL (*Aleurites moluccana*), shake well and apply gently to dry skin twice per day. See glycerine ointment page 54.

WEeping ECZEMA Mix 1ml TEA TREE OIL and 10ml CALENDULA OIL (*C. officinalis*) with 20ml warm (boiled) milk or oat milk, shake well, apply direct to sores. You could also try TEA TREE SALVE and OATMILK SOOTHER See CHAPTER 8– page 103.

To ease ITCHING the following mix may be helpful: 2-5 drops TEA TREE OIL and 10ml ST JOHN'S WORT OIL (*Hypericum perforatum*). Mix well before use, apply with cotton wool. Always patch test. Avoid sunlight on area.

Add 8 drops of TEA TREE OIL mixed with 5ml CALENDULA (*Calendula officinalis*) to bathwater, or have a TEA TREE OIL 'OATMILK' BATH See CHAPTER 8 – page 114. Oil in the bath may make it slippery.

## ***EMPHYSEMA***

From the first diagnosis of this disease - take control - do not smoke, do not passive smoke, do not go outside when the air quality is bad. Avoid everything that you may be allergic to. Go for gentle walks in fresh air. With your doctor's advice tone up those chest muscles, shoulders and upper arms, try swimming, it is a good form of exercise, but do be careful of chemicals in the water.

Maintain your ideal body weight. Eat little and often, fresh organic vegetables and fruit, plenty of whole-grains. Ask your practitioner to prescribe suitable antioxidants, and take them. Relax, cut out stress.

Try not to use sprays around the house. TEA TREE OIL polish and TEA TREE OIL as a deodorant will cut down on a couple of sprays.

Add 2-3 drops NIAOULI (*M. viridiflora*) to comfortably hot water in bowl or sink. Place head over bowl, put a towel over your head to trap the steam and breathe (inhale through the nose, exhale through the mouth) for 10 minutes. Do not go outside into cool air immediately after a steam inhalation.

Do check with your doctor before doing a steam inhalation.

Add 2 drops TEA TREE OIL, 2 drops NIAOULI (*M. Viridiflora*), and 1 drop EUCALYPTUS (*Eucalyptus smithii*) to a hot wet face flannel and apply to chest area for 5 minutes.

***ENDOMETRIOSIS***

See ABDOMINAL PAIN – page 121

***EYE INFECTIONS***

DO NOT USE ESSENTIAL OILS IN AN EYE BATH, DO NOT BATHE EYES WITH ESSENTIAL OILS (even greatly diluted). IF THEY HAVE CONTACT WITH THE EYE, WASH COPIOUSLY WITH WARM WATER, IF STINGING PERSISTS SEEK MEDICAL ADVICE.

Eye infections should be reported to a doctor. Sometimes eye problems can be a symptom of a more serious disease that needs urgent medical attention. After professional diagnosis, minor eye irritations can be soothed at home.

For a vapour treatment: (Infections/styes) put 4 drops of TEA TREE OIL in a bowl of steaming hot water and place head over the bowl for 10 minutes. With eyes closed let the vapours/steam reach the eyelids. Keep your head at a comfortable distance or allow water to cool slightly. Repeat twice per day.

Diluted tea tree water (available from essential oil stockists) may be used, depending on the quality, no preservatives or alcohol should have been added, a natural floral water does not need any additives. Dilute with cooled, boiled water and apply on cotton wool (check with your supplier for the suitability of a particular tea tree water/hydrosol before using in the eye area).

See CHAPTER 8: CUCUMBER EYE POULTICE – page 101

**F*****FEMININE HYGIENE***

TEA TREE OIL is very effective as a natural cleanser because at a low dilution it does not interrupt the natural flora of the vagina, but can guard against infection, odour and itching. Douche with 2 drops TEA TREE OIL to 5ml coconut oil in 250ml warm water and unperfumed soap to emulsify (shake/stir well) use cotton wool (new piece each time) front to back. A 1% gel can be made by mixing 1 drop of TEA TREE OIL with 5ml of water-soluble gel or aloe vera gel and apply (do not use oils with or just before using condoms).

See TOXIC SHOCK SYNDROME – page 174

See THRUSH – page 172

**FLU**

See COLDS AND FLU – p134.

See BRONCHITIS – p128.

See SINUSITIS – p164.

**FOLLICULITIS**

Similar to impetigo, but an infection of the scalp. Use a 3% to 6% dilution of TEA TREE OIL mixed with a carrier i.e. CALENDULA OIL (*C. officinalis*) or JOJOBA (*Simmondsia californica*). Massage into infected area twice per day, wash hair as normal. An alternative mix is: 3-4 drops MANUKA OIL (*Leptospermum scoparium*) mixed with 5ml of carrier oil.

A higher dilution of tea tree oil can be used, if necessary) on a small patch of folliculitis applied with cotton wool, dilute for larger areas and sensitive skin.

**FOOTBATH**

For a refreshing foot spa, add 4 drops of TEA TREE OIL to a bowl of warm water and soak feet for 10-15 minutes, or rub in a mixture of 2-3 drops TEA TREE OIL, 1 drop PEPPERMINT OIL (*Mentha piperita*) and 10ml COCONUT OIL (*Cocos nucifera*). Wash hands after use.

**FOOT INFECTION**

To prevent contagious infections of the feet (especially when going bare foot in public places), rub in a 2%-5% dilution of TEA TREE OIL before and after the activity. If using a carrier oil, apply sparingly and allow to soak in.

CRACKED HEELS see CRACKED SKIN – page 137

See ATHLETE'S FOOT – page 125

See CORNS – page 136

See Verrucae – page 177

**FOOT ODOUR**

Massage a mix of: 1 drop TEA TREE OIL and 5ml COCONUT OIL (*Cocos nucifera*) into feet, or use a TEA TREE OIL 'footbath' above. Wipe around the inside of shoes with a couple of drops of TEA TREE OIL at night or use TEA TREE OIL SHOE FRESHENER - CHAPTER 8 – page 70 and 119

For chronic foot odour, before you go to bed wash your feet, dry and massage in 3% dilution TEA TREE OIL. Cover with gauze and apply loose cling film to each foot, put on a pair of socks. In the morning unwrap and massage in a few drops of the TEA TREE OIL DILUTION, put a clean pair of socks on, cotton ones are best. You should be odour free all day (When washing socks, put a few

drops of TEA TREE OIL in the final rinse water).

### ***FOREIGN BODY IN EAR***

Flood with oil mixed as follows: 10ml OLIVE OIL (*Olea europaea*) mixed with 1-2 drops TEA TREE OIL and leave for a few minutes. Drain and wipe entrance of ear with cotton wool. If symptoms persist, seek medical advice.

### ***FUNGAL INFECTIONS***

TEA TREE OIL is an effective anti-fungal oil. Rub dilution into infected area. Please see specific infections, before treating area. MANUKA OIL and black walnut (hull) tincture is also effective.

See CHAPTER 8: ANTI-FUNGAL OINTMENT – page 116



### ***GERMS***

TEA TREE OIL has a strong germicidal action. It is effective against most household germs.

With a solution of TEA TREE OIL (2ml TEA TREE OIL mixed with a 5ml teaspoon of vodka or alcohol from chemists and add to 100ml warm water - stir well) wipe down surfaces, telephones, etc. anywhere germs may be lurking. You could also emulsify the tea tree oil with soap or a squirt of mild, organic washing-up liquid in place of the alcohol above (stir very well before dipping in cloth). Keep out of the reach of children.

Pour 250ml boiled, cooled water into an atomiser, add 5 drops TEA TREE OIL and 2-3 drops NIAOULI (*Melaleuca viridiflora*) shake before use and mist air to kill germs in sick room etc. Or, put a few drops of TTO and NIAOULI into a humidifier or an electric vaporiser.

### ***GINGIVITIS***

Massage 1 drop of up to a 3% (or appropriate) TEA TREE OIL DILUTION (use fractionated COCONUT OIL -*Cocos nucifera* - as a carrier) into gums twice per day. Or use a mouthwash of 100ml warm water, 2gm salt and 1-2 drops TEA TREE OIL, stir well and swish all around mouth, rinse well.

Add 1 drop of a TEA TREE OIL 3-5% dilution (with coconut oil), to toothbrush

when cleaning teeth. Make sure toothbrush is kept clean, wash well at least once per day (before and after every use if you have a mouth infection). Wash toothbrush in a cup of hot water and 3 drops of TEA TREE OIL. Swish around and let stand for at least 30 minutes, rinse and dry.

### ***GOLDEN-STAPH***

See MRSA – page 153

### ***GOUT***

A 5% TEA TREE OIL dilution may help with the inflammation; apply dilution (5 drops TTO on teaspoon fill with Jojoba and mix). 1 drop CAJUPUT (*Melaleuca leucadendron*) can also be added to the mix. Cover area with gauze. Also, eat 150g cherries every day or cherry concentrate.

### ***GUMS***

#### **INFECTIONS**

Book appointment with dentist. Massage in a few drops of TEA TREE OIL at a 2-3% dilution. Grip gums between your thumb and first finger and gently rub. Fractionated coconut oil (*Cocos nucifera*) is a good carrier for mouth infections. Use dilution depending on age, sensitivity and area covered, the stronger the dilution the fewer drops used i.e. 1-2 drops of 5% TEA TREE OIL (adults only), or 5 drops of a 3% dilution depending on area covered.

## **H**

### ***HAEMORRHOIDS***

To avoid infection have a TEA TREE OIL 'sitz' bath - knees raised in 10 centimetres of warm water and 5 drops of TEA TREE OIL in salt water bath. Dab haemorrhoids with a mix of: 5ml witch hazel to 5ml TEA TREE WATER (hydrosol is available from essential oil suppliers). Repeat twice per day and this should help with pain and swelling. A 2% gel made from 1 teaspoon of ALOE GEL (*Aloe barbadensis*) and 2 drops TEA TREE OIL apply all around and inside anus. Apply after each bowel movement. See– pages 102, 123-124.

### ***HAIR REMOVAL (AFTER)***

See BURN SALVE – page 100 After waxing, sugaring, shaving or cream, rinse

and pat dry, massage in a dilution of 2 drops TEA TREE OIL and 3 drops LAVENDER OIL (*Lavandula angustifolia*) mixed with 25ml GRAPESEED OIL (*Vitis vinifera*) or ALOE VERA GEL (carrier). Especially good for underarms when a deodorant would sting, OR use the TEA TREE OIL SALVE – page 104, and/or the AFTER SHAVE OIL or BALM CHAPTER 8 – page 107.

TEA TREE OIL can be used after plucking eyebrows with tweezers. Either add 1 drop TEA TREE OIL mixed with 10ml of JOJOBA, or use TEA TREE OIL SALVE / CHAPTER 8, apply any of these with cotton wool to area. Be careful not to get into the immediate eye area.

### **HANGNAILS**

Hangnails are characterised by little triangles of split skin, they form around the fingernails and even toenails. Hangnails or back-friends can be very uncomfortable - they catch on everything. They are particularly common among clerical staff who handle a lot of paper, the paper absorbs the natural oil from area and the skin splits. Soak fingers in 10ml warmed CASTOR OIL (*Ricinus communis*) and 2 drops TEA TREE OIL for 15 minutes. With small, sharp scissors clip the loose skin as short as you can, without cutting the healthy skin.

\*Prevention\* - rub in a few drops of the following mixture: 1 drop of TEA TREE OIL in 10ml GRAPESEED OIL (*Vitis vinifera*) into area around nails every night before going to bed.

### **HEAD LICE**

Everyone, no matter who, can become infected with head lice; they cause intense itchiness of scalp and surrounding areas. The lice lay little whitish grey or opaque eggs that attach to the hair shaft (nits). They are often prevalent in schools. TEA TREE OIL may kill the lice but not until they have hatched, so repeat treatment every 5 days, for 3 applications. Always avoid eye area.

Wash hair with the following: add 5 drops TEA TREE OIL to approx. every teaspoon of neutral shampoo, mix well and leave on hair for 15 minutes before rinsing. Add the same amount to a hair conditioner and comb through with a fine-toothed lice comb to remove the lice. Wash all combs, brushes, hair slides, etc., in hot water and 10 drops of TEA TREE OIL. A higher dilution, up to 10% tea tree oil may be used, subject to a patch test, age and sensitivity of person. (10 drops TTO on a teaspoon topped up with a carrier). Avoid eye area.

### **A SCALP RUB TO ERADICATE STUBBORN INFESTATION**

If the above does not clear the infestation: dissolve 10 drops TEA TREE OIL with 2 drops of GERANIUM OIL (*Pelargonium graveolens*) in a little Vodka, mix with 1-2 teaspoons warm water, (or in carrier oil) dip in cotton wool and

apply along hair shaft paying particular attention to the base and scalp. For sensitive skin, the young or in cases of broken skin use 5 drops TEA TREE OIL and 1 drop GERANIUM OIL in 1-2 teaspoons GLYCERINE, or boiled and cooled FULL FAT MILK or ALOE VERA GEL, mix very well and comb through hair with a fine-toothed lice comb, it may be sticky but it can easily be washed out. Wash with neutral shampoo. Add conditioner, comb with a fine-toothed lice comb to remove the lice. In the final rinse water add 1 tablespoon cider vinegar. (Once dry, an electric hair straightener will also kill head lice).

NEEM OIL (*Azadirachta indica* or *Melia azadiracta*) is an effective insecticidal carrier oil, but the aroma is not to everyone's liking. Mix 5ml of slightly warmed NEEM OIL with 5ml COCONUT OIL (*Cocos nucifera*), 10 drops TEA TREE OIL and 2 drops GERANIUM OIL apply liberally to the hair, comb through with a fine-toothed lice comb, leave on for 15 minutes and wash well. See p105.

**\*Prevention\***

Add 2 drops TEA TREE OIL to every 10ml teaspoon of normal shampoo; leave on hair for 1 minute before rinsing, wash hair every day during outbreak.

### ***HEELS (ROUGH DRY SKIN)***

Heels with excess dry skin are uncomfortable. After soaking in salt water, liberally apply a 3% dilution of TEA TREE OIL and CASTOR OIL (*Ricinus communis*), cover with gauze or cotton cloth and then wrap in cling film (low in plasticisers), put clean socks on and leave overnight. Rub away as much rough skin as you can with an abradar or coarse towel. Repeat this as often as necessary to keep problem under control. See glycerine ointment page 54.

See CRACKED SKIN p137

### ***HERPES***

Cold sores (HSV1), shingles (Zoster) and genital herpes (HSV2) are all problems caused by the viral infection *Herpes*. They are characterised by itching, tingling and very painful blisters. At the first signs of tingling, apply 6-10% dilution of TEA TREE OIL to the sore area on a cotton wool bud and repeat twice per day. Always patch test initially. St. Johns Wort (*Hypericum perforatum*) or coconut oil (*Cocos nucifera*) can be used to dilute TTO.

The *Herpes* virus thrives on arginine but is blocked by L-lysine, both are amino acids (components of protein), and are available in many foods. Arginine rich foods include: chocolate, sweetcorn, etc. L-lysine rich foods to eat more of during an attack include: chicken, cottage cheese etc. Alternatively taking 250-500mg L-lysine HCL, 4 times per day in-between meals and last thing at night can help. Vitamin C supplements can also be taken. Seek medical advice.

**GENITAL HERPES (HSV2)**

This is very contagious. At first signs of discomfort, douche with 2-3drops TEA TREE OIL and 2ml coconut oil in 200ml warm boiled water (stir before use). Wash 3 times a day for 2 days, this may help to prevent the attack.

Dab blisters as soon as they become evident with an anti-viral douche oil, which may help to alleviate symptoms. Mix 3 drops TEA TREE OIL, 2 drops LAVENDER OIL (*Lavandula angustifolia*), 2 drops NIAOULI OIL (*M. viridiflora*), stir well and dilute with 10ml ST JOHN'S WORT OIL (*Hypericum perforatum*) and 10ml COCONUT OIL, depending on skin sensitivity.

Have a bath with 5 drops of TEA TREE OIL to 12cm water, splash area with knees apart.

**HIVES**

Hives can be very uncomfortable, burning and itching with red blisters, small boils or spots similar to being stung by nettles. It can be caused by allergens - the sun, dust, stress, etc.

Apply 3-5% TEA TREE OIL DILUTION, diluted in CALENDULA OIL to affected area twice per day. Or, apply TEA TREE OIL SALVE twice per day. When bathing put 8 drops TEA TREE OIL into bath. Try applying TEA TREE OIL cold compress to area, rinse flannel or small hand towel in cold/tepid water with 3 drops diluted TEA TREE OIL added and apply to area.

Up to 10% may be used on smaller areas where itching was not relieved by the lower dilution above. (See beginning of chapter for dilution chart).

See PLANT STINGS – page 158

See ECZEMA – page 140

**I**

**IMPETIGO**

A very infectious skin disease, which can be caused by either *Streptococcus* or *Staphylococcus* bacteria. This uncomfortable infection mainly affects children and can be seen on the face, scalp, neck, hands, knees, legs and nappy area, in large inflamed patches or spots, which blister and crust over. This infection should not be left and should be seen by a doctor; it could lead to other, more serious, complications.

Mix together 15 drops of TEA TREE OIL, 10ml JOJOBA (*Simmondsia californica*) and 20ml CALENDULA (*Calendula officinalis*). Apply oil to area, 2-3

times per day, on cotton wool.

If the lower dilution is not effective, increase by 1 drop TEA TREE OIL until it alleviates the condition - up to 10 drops - per 5ml of carrier (up to 10% dilution), depending on age and sensitivity of skin (subject to a patch test).

EAST CAPE MANUKA OIL with at least 7% leptospermone content can replace or be mixed with the tea tree oil.

### ***IN-GROWING TOENAILS***

See NAIL CARE – pages 112, 146, 154-155

### ***INSECT BITES***

A small red inflamed spot with a speck of blood in the centre is most likely caused by an insect bite or sting. They can become red and itchy after a few hours. Flies, fleas, gnats, and some spiders etc. can all give a nasty bite. Apply 1 drop diluted TEA TREE OIL directly to bite, or on cotton wool bud, as soon as possible. Apply twice per day until disappeared, usually 2-4 days. This will help to alleviate itching and avoid infection. If pain persists, seek medical advice. Dilute with JOJOBA for sensitive skin.

If abroad, splash on TEA TREE OIL if handy and seek urgent medical advice.

### ***INSECT REPELLENT***

A dilution of TEA TREE OIL on exposed skin can repel most biting insects; mixed with CITRONELLA (*Cymbopogon nardus*) it is very effective. Mix 1-2 drops of each with 10ml BABY OIL and saturate exposed areas. Baby oil is not used in healing because it is a mineral, barrier oil, but it can help to keep the repellent qualities of the essential oils on the surface longer than vegetable carrier oils.

For alfresco parties mix TEA TREE OIL with CITRONELLA OIL use in aromatherapy burners or sprinkle onto pan of hot water - keep both out of the reach of children to avoid accidents.

### ***ITCHING***

Itching can be a sign of infection, allergic reaction, sting, bite, skin condition or parasite. You will need to find the cause and treat accordingly. A 2%-10% dilution of TEA TREE OIL can be effective for unidentified itching. This is subject to a patch test and the age and sensitivity of an individual.

If itching occurs when using TEA TREE OIL discontinue use. Only fresh oils should be used in skincare and healing preparations. Make sure that your TTO is well within the expiry date and that it is stored correctly.

## J

### **JOINTS**

When a joint has been overworked, massage in a mixture of: 1 drop TEA TREE OIL, 2 drops KANUKA OIL (*Kunzea ericoides*), 2 drops CAJUPUT (*M. leucadendron*) in 5ml ST JOHN'S WORT OIL (*Hypericum perforatum*). Wrap in gauze and then in cling film (low or no plasticisers) and apply ice pack for 20 minutes elevating the joint, if possible. (Ice not to be used for people with heart disease or diabetes). Next day switch to a heat pad.

For inflammation: mix an oil with: 5ml JOJOBA (*Simmondsia californica*), 1 drop TEA TREE OIL, 2 drops KANUKA OIL, 2 drops NIAOULI (*M. viridiflora*), apply oil on a cold compress, Relax and elevate the afflicted joint.

High Cineole Tea Tree oil can be used. See 'Knee Pain' below.

### **JOCK ITCH**

Jock itch is a fungal infection, usually caused by *Tinea*, that affects the groin area. A 2%- 4% TEA TREE OIL Dilution should clear the infection within a few days.

## K

### **KNEE PAIN**

If unidentified pain and swelling are both evident, do not apply a heat pad. Seek medical advice into the cause. You may need to wear an elastic bandage.

If swollen after exercise apply an ice pack wrapped in a cotton cloth (unless you have heart problems or diabetes). If swelling or pain persists, see your GP.

See JOINTS – Above.

**L*****LARYNGITIS***

Do not talk, do not even whisper, write everything down. Gargle with a TEA TREE OIL solution - 2 drops TEA TREE OIL in a glass of warm water, stir very well before each 'swig', spit out surplus. Take a steam inhalation 2 times per day (see 'Colds and Flu'). Massage the following TEA TREE OIL DILUTION onto the outside of the neck: 2 drops TEA TREE OIL, 1-2 drops NIAOULI (*Melaleuca viridiflora*), 1 drop EUCALYPTUS (*Eucalyptus smithii*) in 20ml ST JOHN'S WORT OIL (*Hypericum perforatum*), cover with gauze and a woollen scarf (not too tight). Always patch test before use.

Avoid cold drinks. Warm Herb teas are soothing, especially slippery elm bark with honey. Stockists include: herbalists, homeopaths or try your local health food shop. Colloidal silver sprayed inside throat may help.

See SORE THROAT – page 167

***LEECHES***

The best thing to do if a leech attaches itself is to dab on neat TEA TREE OIL to the body of the leech, which should loosen the grip, and gently pull off, then treat as for abrasions. For a repellent apply a few drops of diluted TEA TREE OIL (dilute with baby oil) onto lower limbs and especially socks, if you are going to be walking through swampy areas. Check with medical practitioner to see if leeches in your area are carrying any diseases.

***LICE***

These can be picked up from a mattress and/or close contact with humans or animals that have lice.

The lice can infect body, hair or pubic hair. Add 10 drops of TEA TREE OIL to a warm bath with 2 tablespoons salt and soak for 20 minutes.

Apply an oil all over body, repeat every 5 days for 3 applications: mix 2ml TEA TREE OIL and 20ml NEEM OIL (*Azadirachta indica*) with 30ml CALEN-DULA (*Calendula officinalis*) and 5 drops Geranium oil. Patch test initially. If irritation occurs discontinue use.

\*Check hair for head lice. See separate entry listed under head lice.

\*Treat Mattress with a 'natural' insecticide, your health food shop should be able to advise.

\*Wash clothing and bedding, any that cannot be boiled, soak in a solution 8ml TEA TREE OIL and 1 tablespoon salt to 1 litre of water for at least 30 minutes before washing. Boil wash towels every day.

See HEAD LICE – page 105 and page 146

## **LUMBAGO**

Severe pain in the Lumbar area of the back. Medical diagnosis is essential.

Bed rest - as long as the mattress is firm - heat and massage can work wonders. So too does a hot bath before retiring, sprinkle in 8 drops TEA TREE OIL. A hot poultice (page 103) is very soothing followed by a gentle massage.

For massage oil; mix 2 drops of TEA TREE OIL, 4 drops EUCALYPTUS OIL (*Eucalyptus smithii*), in 5ml ST JOHN'S WORT OIL (*Hypericum perforatum*). Rub into lower back (over site of pain), cover with gauze and then cling film (low or no plasticisers), apply heat pad or a comfortable heat hot water bottle - keep the area warm. Only Eucalyptus type '*E. smithii*' should be used on the skin.

For sciatica, use the above massage oil 2 times per day, on the affected areas and down the spinal column. CAJUPUT (*M. leucadendron*) may be substituted for the EUCALYPTUS OIL

If no noticeable relief within 3 days discontinue use.

See CHAPTER 8: TEA TREE OIL HOT POULTICE – page 103



## **MEASLES**

With the MMR jab it is unlikely that you will contract measles, but, if you have a sore throat, a barking cough, eyes that are sensitive to the light and a rash on your face, neck, trunk, and on limbs, you may have Measles. You must have a medical diagnosis as soon as possible; it could be a more serious condition.

Vitamin A is said to help alleviate measles, see your practitioner.

For a sore throat: gargle with: 1 drop of TEA TREE OIL in 100ml warm (boiled) water and 10ml glycerine. Children invariably find it difficult to gargle so a

steam inhalation may be better for them (never leave unattended). A mouthwash with the 50:50 diluted gargle solution (above), may be beneficial.

If spots become very itchy, bathe in warm bath with 4 drops of TEA TREE OIL added (keep stirring to disperse oil). Dab spots with a mix of 1-5 drops TEA TREE OIL in 5ml ST JOHN'S WORT OIL (*Hypericum perforatum*).

See ECZEMA (itching) 140, 149

See Chapter 8: TEA TREE OIL SALVE – page 104

Make sure you have a humidifier in the room or put a bowl of hot water with 2-4 drops NIAOULI (*M. viridiflora*) to 1 litre water. Keep out of reach of young children. An electric vaporiser (out of reach) may be the safest.

Have regular steam inhalations. In a bowl put hot water, 3 drops of TEA TREE OIL and 1 drop NIAOULI, cover head with towel to make 'STEAM TENT'. Close eyes, inhale through the nose and exhale through the mouth. Do not leave unattended or use very hot water.

\*Do not go out into cold air after an inhalation.

See EAR INFECTIONS – pages 140, 171.

See SORE THROAT – page 167

See ACHES AND PAINS – page 123

## ***METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS***

See MRSA – Below.

## ***MOUTH ULCERS***

Dab 1 drop diluted TEA TREE OIL on to the ulcer with the tip of your clean finger or cotton wool bud. Repeat 2-3 times per day. Dilute with either COCONUT OIL (*Cocos nucifera*), MACADAMIA NUT OIL (*Macadamia ternifolia*) or GLYCERINE. Dilute to 3% for the young or elderly.

Mix a TEA TREE OIL mouthwash by adding 1 drop TTO and 3g salt to 150ml of warm water (stir well before each 'swig') and rinse mouth twice per day.

\*It is thought that an unhealthy diet can also cause mouth ulcers, in particular a deficiency in Vitamin B complex.

See TEETH AND GUMS 171 See GINGIVITIS – page 144

See CHAPTER 8: TEETH PREPARATIONS – page 110

## ***MRSA***

Methicillin-resistant *Staphylococcus aureus* also known as: Super-staph, Golden-staph, Multi-resistant *Staph aureus* or MRSA. It can be a fatal infection. It infects wounds, etc. More prevalent in hospitals than the medical profession

would care to admit. It can be transmitted by touch from person to person or from person to object/object to person. All surfaces including pens, charts, stethoscopes. should be wiped down with at least a 5% TEA TREE OIL wash. Hands should be washed before and after examining a patient.

NB: Always patch test initially, susceptible people may have an allergic reaction.

Add 5ml of TEA TREE OIL to 95ml of neutral hand and body lotion, hand wash, soap etc. OR add 5 drops TTO per 5ml teaspoon of product. Thoroughly wash hands and/or body for at least 3 minutes with a 5% tea tree liquid soap.

Add a few drops of 5% DILUTION of TEA TREE OIL to bandages and dressings. (5% oil is made as follows: add 5 drops TEA TREE OIL to a 5ml teaspoon topped up with carrier oil i.e. GRAPESEED OIL (*Vitis vinifera*) or JOJOBA (*Simmondsia californica*). NB: glycerine can also be used as a carrier. See page 54. A 2%-4% dilution should be safe to use in the nasal passages, subject to an initial patch test, applied on a cotton wool 'plug' to each nostril in turn. See practitioner before carrying out any self-care.

**For a stubborn infection** of MRSA (topically, on the body) a higher dilution can be used. See practitioner before carrying out any self-care.

EAST CAPE MANUKA OIL (*Leptospermum scoparium*) with a 7% or above *Leptospermone* content is proving, in some recent research papers, to be effective against MRSA. Further clinical trials need to be carried out so that hospitals will accept these valuable oils.

## MUSCLE ACHES

Muscles that are overworked can give pain. At first signs apply a mixture of: 1 drop TEA TREE OIL, 1 drop CAJUPUT (*M. leucadendron*), 5ml ST. JOHN'S WORT OIL (*Hypericum perforatum*), massage in and apply a cold compress. After 24 hours apply TEA TREE OIL MIXTURE and a heat pad to ease soreness. High cineole tea tree oil can be used.

See CHAPTER 8: DEEP HEAT RUB – page 101

# N

## NAIL CARE

Finger and toenails are made of keratin, a protein that is found in skin cells. Like skin, nails can become dry, flaky and susceptible to infection and fungal disease.

You can add TEA TREE OIL to your normal hand cream, 20 drops (1ml) per 99ml. It would be beneficial for your nails to use a thin layer of the TEA TREE OIL BARRIER CREAM (CHAPTER 8) before your hands are immersed in water, or before doing household chores i.e. gardening etc.

See CHAPTER 8: HAND AND BODY CREAM – page 112

To keep your nails healthy, bathe once a week in warmed full fat milk with 2-3 drops of TEA TREE OIL added, pat dry and manicure. Rub in TEA TREE NAIL OIL, mix: 1 drop TEA TREE OIL to 5ml EVENING PRIMROSE OIL (*Oenothera biennis*) and 10 drops WHEAT GERM OIL (*Triticum vulgare*). This should help to keep finger and toenails strong and healthy. NB Blackcurrant oil (*Ribes nigrum*) is also a good carrier oil for healthier nails, add 2.5ml and reduce Evening Primrose oil to 2.5ml.

See CHAPTER 8: NAIL CONDITIONING OIL – page 112

### CUTICLES

TEA TREE OIL can help to remove excess cuticle, after a bath or after you have soaked your nails for at least 10 minutes, as above. Apply a drop of diluted TEA TREE OIL to each cuticle, rub in, and leave for 1 minute. Take an orange stick dipped in TEA TREE OIL dilution and gently ease back each cuticle. You must be very gentle, so that you do not damage the soft tissue.

### IN-GROWING TOENAILS

An appointment with a chiropodist should be made for moderate to severe cases. Soak the feet daily in a bowl of warm water with 2 tablespoons of salt, and 5 drops of TEA TREE OIL, pat dry and rub in 3 drops TEA TREE OIL mixed with 5ml OLIVE OIL (*Olea europaea*). This will soften the nail and help to prevent infection. When nail is soft it is easier to cut with a small, sharp pair of nail scissors. If pain persists, consult a chiropodist.

\*Prevention\* Cut nails straight across, never below the top of the toe.

### CUTTING NAILS

Always soak nails, before cutting, in warm water with 5ml OLIVE OIL and 2 drops TEA TREE OIL, this will ensure that they are supple and less likely to split or break. Manicurists do not recommend cutting fingernails with scissors.

## ***NAIL INFECTIONS***

TEA TREE OIL is effective against fungal nail infections. Mix together 1ml of TEA TREE OIL and 1ml JOJOBA (*Simmondsia californica*) and soak infected nail 2-3 times per day.

For a stronger treatment, gently abrade area with abradar (onto newspaper, and dispose of nail filings). Sterilise abradar before each use. Put petroleum jelly

around the skin of the nail (to protect it) and apply neat TEA TREE OIL 3-4 times per day, making sure all of the nail is saturated by dipping a cotton wool covered orange stick in TEA TREE OIL and 'cleaning' all around each nail. A pad soaked in TTO and attached to the nail, covered in cling film (low or no plasticisers) and left overnight, may be beneficial in severe cases. If the fungal infection has badly stained the nail, it will have to grow out before you will see a difference. It may take 3 to 6 months of constant care depending on the severity of the infection. The infection may be systemic, consult a GP. If reaction occurs, dilute tea tree oil or discontinue use.

### ***NAPPY RASH***

This can be a very painful and distressing condition, which affects most babies at some time during their time in nappies.

For younger babies a qualified aromatherapist should be consulted.

Mix 1 drop TEA TREE OIL to 5ml-10ml carrier oil (not baby oil) i.e. OLIVE OIL (*Olea europaea*) or coconut oil (*Cocos nucifera*). Patch test initially - apply a few drops of mixture to a small area of rash 5-6 times in 24 hours, if no reaction apply to the nappy rash every time the nappy is changed. Do not use as a preventative measure, only use if nappy rash is evident.

Give the baby's bottom some air. Let them kick happily without a nappy for as long as you can watch them. If symptoms persist longer than 72 hours, without improvement, consult midwife.

\* A lotion can be made by warming a little cocoa butter and beating into 15ml warmed coconut oil, beat well and add 1-3 drops Tea Tree oil, mix well and apply to area. See Ointment page 54.

\*Only use the TTO oil mix when the nappy rash is evident. If irritation occurs, discontinue use.

### ***NECK PAIN***

On the first sign of pain or stiffness, apply a mix of 1 drop TEA TREE OIL and 1 drop CAJUPUT (*M. leucadendron*) with 5ml JOJOBA (*Simmondsia californica*) to the site on a cold compress. Only use a cold compress if you do not suffer from heart problems or diabetes. Remove and leave for 1 hour for skin to warm naturally and then soothe with TEA TREE OIL DILUTION as above and apply heat pad. A warmed large towel wrapped loosely (like a neck collar) around neck may be beneficial. Always patch test initially.

Also, after applying the above oil fold up a towel and place it against small of back when sitting (adjust the size of the towel until comfortable, it should support your back and ease the pain).

Whiplash injuries and/or persistent or chronic neck pain must have medical attention.

See CHAPTER 8: DEEP HEAT RUB – page 101

### ***NETTLE STINGS***

See PLANT STINGS – page 158

See STINGS – pages 149, 168

### ***NEURALGIA***

A trapped, compressed, or irritated nerve is the most common cause of neuralgia. A comfortable heat pad or a gentle massage may help to ease some of the discomfort.

Apply 'TEA TREE OIL MASSAGE RUB' made from 2 drops TEA TREE OIL, 2 drops KANUKA OIL (*Kunzea ericoides*), 2 drops CAJUPUT (*Melaleuca leucadendron*), in 10ml ST JOHN'S WORT OIL (*Hypericum perforatum*). Massage gently into the affected area (not to be used on the face - see below). Apply a gentle heat pad for 20 minutes. When going outside always cover up and keep warm the affected area. High cineole TTO can be used on the body area. Always patch test initially.

See CHAPTER 8: HOT POULTICE – page 103

FOR NEURALGIA OF THE FACE:

A steam inhalation can be beneficial. Add 2 drops of TEA TREE OIL, 1 drop NIAOULI (*M. viridiflora*) and 2 drops LAVENDER OIL (*L. angustifolia*) to a bowl of steaming water, close eyes, position face as comfortably as possible over the rising steam and let the vapours soothe.

### ***NIPPLES***

Cracked and sore, apply a 2% TEA TREE OIL dilution (2 drops TTO to 5ml Jojoba) to area. If breastfeeding, consult a midwife. The nipple should be thoroughly washed before feeding. Do not apply within 1 hour of feed.

See SCABIES – page 162

### ***NITS***

See HEAD LICE pages 105 and 146

See LICE – page 151

**O*****ONYCHOMYCOSIS***

See NAIL INFECTIONS – page 155

**P*****PAIN***

See ACHES AND PAINS – page 123

See RHEUMATISM – page 160

***PEDICULOSIS***

See HEAD LICE – pages 105 and 146

See IMPETIGO – page 148

***PLANT STINGS AND RASHES***

Cover immediately with diluted TEA TREE OIL, it should help to stop pain and itching. Dilute to 3%-5% with a carrier i.e. COCONUT OIL (*Cocos nucifera*) in the case of sensitive skin. Apply as necessary.

See ‘Poison Ivy’ below.

***POISON IVY***

Apply appropriate TEA TREE OIL DILUTION as soon as possible, then apply as necessary. Dilute with a carrier oil i.e. CALENDULA (*Calendula officinalis*) or ST JOHN'S WORT OIL (*Hypericum perforatum*) A 10% dilution or higher for sensitive skin. If the rash is very itchy, a cold compress or a cool air fan applied to the area may help to alleviate it.

See ECZEMA (ITCHING) – pages 140, 149

***PRICKLY HEAT***

See HIVES – page 148

See ECZEMA (ITCHING) – pages 140, 149

## **PSORIASIS**

Like eczema, psoriasis can be different for everyone, and likewise so are the remedies. What works for one person does not always work for another. Here is the list of first aid salves for sufferers, find the one that suits you best. Try to alleviate stress with a good relaxation technique, such as EFT. Add as much organic, fresh fruit and vegetables, essential fatty acids and a probiotic, to diet as possible. Mix a basic 2%-5% TEA TREE OIL dilution with JOJOBA and EVENING PRIMROSE OILS as a carrier or use the following below.

### TEA TREE RUB OIL I

50ml ALMOND OIL (*Prunus amygdalus var. dulcis*), 20ml JOJOBA (*Simmondsia californica*), 3ml TEA TREE OIL, 30ml CALENDULA OIL (*C. officinalis*). Mix and apply as necessary after patch test.

### TEA TREE RUB OIL II

30ml MACADAMIA NUT (*Macadamia integrifolia*), 10ml NEEM OIL (*Azadirachta indica*), 30ml BLACKCURRANT OIL (*Ribes nigrum*), 2ml TEA TREE OIL, 1ml LAVENDER OIL (*L. angustifolia*) Mix and use as necessary after an initial patch test.

### TEA TREE RUB OIL III (Always patch test initially)

30ml CASTOR OIL (*Ricinus communis*), 30ml JOJOBA (*Simmondsia californica*), 30ml KUKUI OIL (*Aleurites moluccana*), 3ml TEA TREE OIL and up to 5 drops NIAOULI (*M. viridiflora*).

### WATER BASED TEA TREE OIL LUBRICANT

Mix 3% TEA TREE OIL DILUTION with a water based gel or aloe vera gel and apply as necessary after a patch test.

TEA TREE OIL SUPER ANTISEPTIC CREAM - page 99      OR  
ANTI-FUNGAL OINTMENT - page 116 (this has had some good results).

\* If skin is very dry, apply a layer of gauze and cover with cling film (low or no plasticisers) over top of treatment for maximum absorption.

*Remember: never take a hot bath.*

\* TEA TREE OIL mixed 1 part with 5 parts of JOJOBA and an ice pack may help for smaller areas of itchy skin (Subject to a patch test).

See ECZEMA (ITCHING) – pages 140, 149. See Glycerine ointment page 54.

## **PYORRHOEA**

See GINGIVITIS – page 144

See TEETH AND GUMS – page 171

**R*****REPETITIVE STRAIN INJURY (RSI)***

RSI, writers cramp or typists wrist is not something that happens overnight, it is an accumulative trauma disorder that develops over a period of time, due mainly to repeated stressful movements of the hands and wrists.

If you are 35 to 60 years old, and are doing a repetitive job using your hands, it is best to take preventative measures. Take a break every hour, if only for two minutes. Stretch your arms above your head, bring them down and move your wrists round and round in circular motions. Bend your neck forward then back, do a circular motion with your chin, try to make the letter O with your chin, then try to make it bigger and bigger. Finally, apply your normal hand cream (with 10 drops TEA TREE OIL added per 100ml) and vigorously rub your palms together. In the evening or at the first sign of numbness, cramping or tingling, massage in a little of the following cold oil mix: 1 drop TEA TREE OIL, 1 drop CAJUPUT (*M. leucadendron*), 5ml ST. JOHN'S WORT OIL (*Hypericum perforatum*) rub well in with circular firm movements from elbow to fingertips, gently pull and push fingers as you massage. Apply a cotton-covered ice pack for at least 10 minutes to each wrist and hand.

***RHEUMATISM***

Massage the area twice per day with a massage oil made with 50ml ST JOHN'S WORT OIL (*Hypericum perforatum*), 1ml TEA TREE OIL, 1ml CAJUPUT (*M. leucadendron*). Apply heat pad if necessary. St John's Wort oil should not be used on areas exposed to strong sunlight.

Body brushing can be therapeutic for rheumatism, to release impurities from the system. Brush the body with a natural bristle body brush at least once per day initially. Starting at the shoulder brush the skin in long firm, even strokes right down to the toes. Massage in the mixed oil as above. See page 99.

See ACHES AND PAINS p123, See ARTHRITIS p124, See MUSCLE ACHES p154  
See CHAPTER 8: DEEP HEAT RUB – page 101

***RINGWORM***

Characterised by a patch of scaly red itching skin that forms a raised outer ring with a pink centre, Ringworm is a fungal skin infection.

You can use TEA TREE OIL at the first signs, unlike most ringworm creams, it does not matter if the scaly patch of skin turns out to be impetigo or eczema. \*CALENDULA (*Calendula officinalis*) or OLIVE OIL (*Olea europaea*) may be used as a carrier. On non-sensitive areas or people, a higher dilution can be used.

Mix 3-5ml of TEA TREE OIL with 50ml of OLIVE OIL, store in a dark glass, labelled bottle and apply to ringworm 3-4 times per day, until 2 weeks after it disappears (it may take up to 6 weeks depending on which fungal infection it originates from i.e. *Trichophyton spp.* or *Microsporum spp.*) Ringworm is highly contagious; you must cover with a gauze pad until it disappears.

A mixture of 1-2ml TEA TREE OIL, 2ml MANUKA OIL (*L. scoparium*), and 50ml CALENDULA OIL can be used instead, apply as above. The Manuka oil must be the East Cape variety, which has the most anti-fungal properties.

If on the scalp dab 3 times per day with 2ml TEA TREE OIL diluted with 30ml OLIVE OIL. Wash hair with normal shampoo containing 6ml TEA TREE OIL per 100ml OR 6 drops of TTO in approximately a teaspoon of shampoo and apply. This dilution may thin the mixture, if you add a little sea salt and mix well, the mixture should thicken up again. Always patch test.

It is very important to wash clothes, bedding, towels, brushes, combs, hair slides and hands in a solution of 10ml TTO to 1 litre of water and soap.

See IMPETIGO p148, See ATHLETE'S FOOT p125

See CHAPTER 8: ANTI-FUNGAL OINTMENT – p116

### **ROSACEA – ACNE**

Do not go out in extreme heat or cold. Do not do steam facials etc.

See ACNE– pages 107, 123,

### **ROUGH DRY SKIN**

Usually affecting knees, heels and elbows, soak area in warm water and bicarbonate of soda solution (or after a bath), dry well and rub in liberal amounts of a 3% TEA TREE OIL and CASTOR OIL (*Ricinus communis*) DILUTION (3 drops of TEA TREE OIL in 5ml CASTOR OIL). Gently abrade surface with an abradar designed for the purpose, wipe and rub in more of the dilution. Wrap cling film (low in plasticisers) around area and cover with cotton socks or gauze secured with surgical tape (not too tight), and leave overnight. In morning, gently abrade area and wash. Repeat as often as needed.

See CHAPTER 8: OATMEAL RUB – page 114

See CRACKED SKIN - page 137


**SCABIES**

Quite common in sheep farming areas, scabies is transmitted by the mite *Sarcoptes scabies*; it can be picked up by touching anything from clothing to coins. Small red pimples appear as the hatched mites burrow their way out of the skin. The areas usually affected are the groin, genitals, nipples and hands.

To treat: wash the affected part with a mix of 5ml TEA TREE OIL to 100ml neutral body wash (or shower gel), mix very well and use by soaping the body, leave for 3 minutes and rinse off. Apply a mixed oil to infected site twice per day; mix 6ml TEA TREE OIL to every 30ml NEEM OIL (*Azadirachta indica*) and 40ml COCONUT OIL (*Cocos nucifera*). Store in a dark glass, labelled bottle with an airtight lid, use within 3 months. Lavender can be added for a more pleasant aroma.

Add 6ml TEA TREE OIL (*Melaleuca alternifolia*) to every 100ml of your normal shampoo and also to the conditioner. When washing hair, allow the shampoo to remain in the hair for at least 5 minutes before rinsing. Repeat the process with the conditioner.

Boil wash bedding, towels and flannels. Wash clothes well and add 8ml TEA TREE OIL and 1 tablespoon salt to 1 litre of rinsing water, soak for 30 minutes. Wash brushes, combs, and slides in the same solution.

The mattress must also be treated; your local health shop should have a 'natural' insecticide for this purpose.

**SCABS**

It is best to let scabs heal and disappear by themselves, but if they are unsightly or infected, then they may benefit from the following treatment:

Apply TEA TREE OIL DILUTION to the scab. If stuck to a bandage, soak the area in 250ml warm water with added salt. Bathe, pat dry and apply a mix of: 1-2 drops of TEA TREE OIL mixed with 5ml CALENDULA OIL (*C. officinalis*), cover with gauze so that the wound can breathe while healing. KUKUI OIL (*Aleurites moluccana*) is a good carrier oil to use for softening scabs. Manuka honey can be used for scabs, apply often during the day.

**SCALDS**

See BURNS – pages 100, 104, 130

## **SCARRING**

To help to prevent or lessen unsightly scarring, gently apply the following to the healing wound. Mix together 6 drops TEA TREE OIL, 5ml CALENDULA OIL (*C. officinalis*), 5ml VITAMIN E OIL (or WHEAT GERM OIL *Triticum vulgare*), 5ml KUKUI OIL (*Aleurites moluccana*), 25g warmed COCOA BUTTER, 2 teaspoons warmed MANUKA HONEY, keep stirring until cool, gently apply a little to the area twice per day. Store in a sterilised pot, in a cool dark place, label and use within 1 month.

## **SCIATICA**

See LUMBAGO– page 152, NEURALGIA p157, See RHEUMATISM p160.

## **SEPTIC FINGER**

Cuts and wounds must be kept clean and free from infection. If the cut becomes itchy, red, and swollen or develops greenish pus underneath the skin, then it is turning septic. If over a large area medical advice is needed.

At the very first signs, soak the wound in 1 cup of warm water with 5g salt and 5 drops of TEA TREE OIL. Pat dry and rub on a 1-2 drops of 25% TEA TREE OIL DILUTION (dilute as necessary for sensitive skin), cover and repeat 2 times per day until infection subsides. If persists longer than 72 hours without improvement, septic area becomes larger, or pain increases consult your doctor.

See CHAPTER 8: TTO SUPER ANTISEPTIC HEALING CREAM – page 99

## **SHAVING RASH**

Red, irritated, pimple-like sores appear after shaving. Apply an 'aftershave' oil or gel after each shave.

OIL: To mix the oil, take 30ml KUKUI OIL (*Aleurites moluccana*) and add 10 drops TEA TREE OIL, mix well and store in a dark glass bottle, label and use within 3 months. One small drop of PEPPERMINT OIL (*Mentha piperita*) may be added for its 'cooling,' refreshing, sensation (subject to patch test - but remember: never use mint oils neat on the skin or in the bath).

NB Substitute JOJOBA (*Simmondsia californica*) if a reputable supplier of KUKUI OIL cannot be found.

GEL: To mix a gel, take 5ml ALOE VERA (*Aloe barbadensis*) and 5ml water soluble gel, add 1 drop TEA TREE OIL mix very well, it may become opaque when mixing, apply sparingly to problem area, refrigerate and use within 7 days. Or, use a proprietary brand aloe gel and mix in oil.

## SHINGLES

The *Herpes* virus thrives on arginine, but is blocked by L-lysine, both are amino acids (components of protein) and are available in many foods. Arginine rich foods to avoid during an attack include: chocolate, sweetcorn, etc. L-lysine rich foods to eat more of during an attack include: chicken, cottage cheese etc. Alternatively, taking 500mg L-lysine HCL 4 times per day in between meals and last thing at night can help immensely. Vitamin C supplements should also be taken. Consult a GP if there is a history of liver or kidney disease.

Apply a mix of 10 drops TEA TREE OIL to 10ml ST JOHN'S WORT OIL (*Hypericum perforatum*) to area that is tingling, before and after spots appear, twice per day, (up to a 10% tea tree oil dilution may be used depending on location and sensitivity). If the area is too tender to touch, mist spray a tea tree oil solution onto the area. Remember to shake bottle well before each spray to disperse the oil. Put 10 drops TEA TREE OIL and 3 drops NIAOULI (*Melaleuca viridiflora*) into an atomiser (mister) with 20ml JOJOBA and 100ml warm water, shake very well and spray area of blisters with a fine mist spray. Keep well away from the eye area).

Or mix 3-5 drops TEA TREE OIL with a good teaspoon of ALOE GEL and few drops warmed coconut oil, apply as often as necessary, on gauze.

Have an oatmeal and TEA TREE OIL bath: in a muslin bag put a handful of ground whole oats. Hang bag around cold tap and allow water to run in through bag, add 10 drops of TEA TREE OIL to water.

Try a cold TEA TREE OIL compress to painful area, rinse a small towel in a mix of: 250ml water, 3 drops TEA TREE OIL and 1-2 drops NIAOULI, stir very well and dip in towel, wring out and apply.

## SINUSITIS

When you begin to feel the first signs of sinusitis, make a TEA TREE OIL steam tent. Put 5 drops of TEA TREE OIL into a large bowl of hot, steaming water, or as hot as is comfortable. Keep out of the reach of children. Lean over the bowl and drape a large bath towel over your head to form a tent. Close your eyes and inhale the vapours through your nose and exhale through your mouth. A high cineole tea tree oil can be used. Or add 1-2 drops CAJUPUT (*M. leucadendron*) to the above vapour bath. Do not go out into cool air immediately after a steam inhalation.

If you have an attack at work: fill a cup full of hot water and 1 drop of EUCALYPTUS (*E. smithii*) breathe in the vapours as often as necessary.

If symptoms persist consult a doctor

If you have dry heat at home, hang humidifiers, containing water and a few drops

of TEA TREE OIL, over the radiators.

See CATARRH – page 131

See COLDS AND FLU– page 134

## SKINCARE

Skincare must really begin from within. A healthy balanced diet including natural, organic fruit, vegetables, whole-grains, sprouted seeds, nuts, with at least 3 litres of pure, filtered water, plus herb teas and vegetables juices will help to keep skin healthy, toned and fresh. Used in conjunction with basic cleansing and moisturising, using only natural unadulterated products could ensure your skin remains clear, glowing and youthful all through your life.

Diluted TEA TREE OIL is a very effective tool for keeping your skin in perfect condition. You can add it to cleansers and moisturisers for a clean fresh complexion. Your skin will always reflect what you put into your body, what you put on to it and your state of mind (stress etc.). If you bombard your system and skin with synthetic chemicals, you may lose your natural bloom.

## BODY

### FOR GENERAL SKINCARE

\*Add 8 drops of TEA TREE OIL and 2 drops LAVENDER OIL (*Lavandula angustifolia*) mixed with half a teaspoon (2.5ml) of carrier oil i.e. ST. JOHN'S WORT OIL (*Hypericum perforatum*) to your bathwater.

This is beneficial by achieving 3 actions in one:

- 1) The waters and oil will help to cleanse and moisturise the skin,
- 2) The steam will open pores in facial skin, ready for cleansing.
- 3) The vapours will be inhaled, and will generally make you feel 'better'.

For the morning a cooling, refreshing spa bath mix: 6 drops TEA TREE OIL, 1-2 drops PEPPERMINT OIL (*Mentha piperita*) and 10ml COCONUT OIL (*Cocos nucifera*) add to water. (\*CAUTION: oil may make bath slippery).

For the evening a relaxing 'soother' bath: mix 4 drops TEA TREE OIL, 4 drops LAVENDER OIL and add to water. Use a face flannel, body brush or loofah to rub away dead skin cells from body.

Use TEA TREE OIL HAND & BODY CREAM CHAPTER 8 – page 112 or add 10 drops of TEA TREE OIL to 100ml neutral, hypo-allergenic toiletries, shake well before each use.

See CHAPTER 8 for more skincare regimes 107- 117

## FACE

Start by removing dead skin cells. For this you can use an ordinary face flannel. Moisten flannel with warm water, rub over face from outside in, taking care not to drag the skin directly under and around the eyes.

See CHAPTER 8: FACE – page 107-110

## DRY SKIN

Never use hot water when cleansing.

Body - moisturise every week by massaging in a few drops of a dry skin moisturising oil: mix 2 drops TEA TREE OIL, 2 drops LAVENDER OIL (*L. angustifolia*), 10ml WHEAT GERM OIL (*Triticum vulgare*), 30ml ALMOND OIL (*Prunus amygdalus var. dulcis*), 20ml Jojoba (*Simmondsia californica*). Put all ingredients into a labelled, dark glass bottle with airtight stopper; shake well before each application. Use within 3 months. Add a few drops to bath. Also, add 3 tablespoons powdered milk to bath water.

See CHAPTER 8: BODY – pages 113-115

Heels, elbows and knees - after bathing or daily soaking, rub in a mixture of: 1 drop TEA TREE OIL and 5ml CASTOR OIL (*Ricinus communis*), after 3 days exfoliate area.

Face - mix face oil: 1 drop TEA TREE OIL in 20ml MACADAMIA NUT OIL (*Macadamia ternifolia*) and 20ml JOJOBA (*Simmondsia californica*) mix well. Store in a labelled dark glass bottle. Just before bed, after skin cleansing routine, mist face with water, and apply a few drops of the mixture, massage into facial area, leave for 20 minutes and then remove surplus (if any) with soft tissues. In morning, cleanse face as usual.

Facial dry skin - See also CHAPTER 8 – page 107-110

## GREASY SKIN

Body - Take a warm bath add 2 drops LEMON OIL (*Citrus limonum*) and 6 drops TEA TREE OIL mixed with 2.5ml JOJOBA.

Face - Tone skin with the following strawberry freshener, as often as necessary: - 20gms fresh garden mint, 100gms fresh strawberries, 5ml balsamic cider vinegar, 2 drops TEA TREE OIL. Wash and dry fruit and herbs, place all ingredients into a liquidiser, turn to highest setting, liquidise until smooth. Strain through a fine mesh sieve and strain again through muslin. Pour into a large dark glass bottle, shake well before use, dilute as required with distilled water, to suit. Always patch test before use, initially. Keep refrigerated and use within 7 days. Use pulp mixed with ground oats as a face pack.

Mix an oil as follows: 1 drop TEA TREE OIL in 35ml JOJOBA (*Simmondsia californica*). Apply a few drops of mixed oil to facial area once per week, leave for 5 minutes and wipe away excess. It must sound rather strange putting an oil onto an already greasy skin, but JOJOBA can help to regulate an overly greasy skin, so is beneficial. Cleanse of usual.

### CHAPPED SKIN

Chapped skin usually affects the hands. When your skin becomes very red, sore and even cracked, avoid washing the area as much as possible. Rub with anti-bacterial hand cream or mix 1 drop TEA TREE OIL to 5ml GLYCERINE and apply every time you should have washed your hands and massage in. Mix well before use. Wipe off excess.

At night massage in a few drops of the following mixture: 3 drops TEA TREE OIL, 10ml JOJOBA and 10ml CALENDULA OIL (*C. officinalis*). Cover with cotton gloves if possible.

To remove dry skin use oatmeal rub for hands (CHAPTER 8). Apply hand cream liberally and repeat once per week. Cornmeal (maize) added to a 2% dilution of TEA TREE OIL and rubbed into soaked heels and soles of feet can help to exfoliate the problem areas.

\*Prevention\* Whenever you go outside in winter rub TEA TREE HAND & BODY CARE CREAM – page 112, into hands and cover with gloves. Use a barrier cream before washing up and/or wear rubber gloves.

See CHAPTER 8 – pages 99-118

See TRANSDERMAL ABSORPTION CHAPTER 4 – pages 29-31

### ***SORE THROAT***

Fill a sterilised, food quality, atomiser spray bottle with a mixture of 50ml warm water, 20ml glycerine and 1-2 drops TEA TREE OIL shake well and lightly mist-spray throat, twice per day. Do not attempt if under 12 years of age or are suffering from asthma or a serious medical condition. Or, gargle with 1-2 drops TEA TREE OIL in warm water. If symptoms persist more than 48hrs, without improvement, seek medical advice.

Natural Chinese cough medicine (Nin Jiom Pei Pa Koa) from a Chinese supermarket is very effective.

\*A good quality colloidal silver can be sprayed onto inflamed throat or tonsils.

See COLDS AND FLU – page 134

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## ***SPIDER BITES***

It has recently been reported that we now have venomous spiders in the South of England. If bitten apply 1 drop of 10% TEA TREE OIL dilution to area every few hours. If an allergic reaction to the bite appears, consult doctor immediately, (dilute TTO with carrier i.e. GRAPSEED OIL (*Vitis vinifera*) for children and sensitive skin).

If abroad, soak area in TEA TREE OIL, if it is to hand, apply cold to area and seek medical attention immediately. Methyl-Sulphonyl-Methane (MSM) and dimethyl sulphoxide (DMSO), taken regularly, alleviates effects of spider bites.

## ***SPLINTERS***

Surface splinters, thorns, metal filings etc., remove as soon as possible with tweezers or needle (soaked in neat TEA TREE OIL). Soak area if possible in a cup of salt water with 4 drops TEA TREE OIL to clean. Apply 1 drop of 5% TEA TREE OIL DILUTION and cover. Dilute further for sensitive skin.

If splinters are in the eyes or buried beneath the skin seek medical advice

## ***SPRAINS***

As soon as a sprain is suspected, apply a cold compress and seek medical attention for diagnosis and to assess damage. If no other injury than a sprain, a tto cold compress may help to alleviate the pain. As soon as possible, apply a cold compress soaked in the following oil: 2 drops TEA TREE OIL, 1 drop PEPPERMINT OIL (*Mentha piperita*), 1 drop EUCALYPTUS OIL (*Eucalyptus smithii*) and 5ml ST JOHN'S WORT (*Hypericum perforatum*). A few hours after the injury try hot and cold compresses to the area. High cineole tea tree oil can be used.

See CHAPTER 8: BRUISE BAN p100, p129.

## ***STAINED TEETH***

See TEETH AND GUMS – page 171

See CHAPTER 8 – pages 110, 171

## ***STINGS***

\* BEE STINGS –

Bees can actually leave their sting embedded in the skin. Scrape it out carefully, do not squeeze, it may release more poison. Apply 1 drop diluted TEA TREE OIL mixed with bicarbonate of soda, to the surface. Apply a cold compress.

\* WASP STINGS - Apply 10% TTO dilution and vinegar. Ice can be applied.

\* ANTS - Apply diluted TEA TREE OIL mixed with bicarbonate of soda to stop painful itching. Children should use a low dilution of TEA TREE OIL with carrier oil (a higher dilution depends on sensitivity, area covered and age).

\* Watch carefully for signs of an allergic reaction to the sting, it can be anything from: fainting, dizziness, vomiting, swelling anywhere on body (tongue, hands feet, ankles, etc.), hoarseness, sore throat, chest tightness, shortness of breath, wheezing, headache, coughing, fever, muscle cramps, spots, skin rashes, skin discoloration or anything unusual.

If any of these do occur take to the nearest medical centre, urgently.

If abroad, or the person has a known allergy to the type of sting, apply TEA TREE OIL, only if handy, and seek urgent medical attention.

For an insect repellent, mix 50ml BABY OIL with 10 drops TEA TREE OIL and 20 drops CITRONELLA OIL (*Cymbopogon nardus*). Store in a dark glass bottle, shake well before use and apply as necessary. (Baby oil is not usually used because it is not a natural plant oil, but on this occasion it helps to form a barrier and keeps the essential oils on the surface longer than a vegetable oil carrier would). Apply a few drops of citronella to hat brim and footwear.

NETTLE stings: apply diluted TEA TREE OIL to affected area and a cold compress if itching is severe. Dilute with a carrier oil (not baby oil) for sensitive skins. Bicarbonate of soda compress may help.

See PLANT STINGS p158,

See INSECT BITES p149,

See SPIDER BITES p168

## **STOMACH CRAMPS**

Gently massage abdominal area (and lower back, if possible) with the following oil: 5ml CASTOR OIL (*Ricinus communis*), 1 drop TEA TREE OIL and 1 drop PEPPERMINT OIL (*Mentha piperita*) apply a gentle heat pad. Do not use on sensitive skin (or dilute mix with another 5ml castor oil). High cineole tea tree oil can be used.

Do not use on or around young children under 12.

See MUSCLE ACHES – page 154

## **STRESS**

Muscles knot and tense when we are under stress. Massage in a little of the following oil: 35ml ST JOHN'S WORT OIL (*Hypericum perforatum*), 1 drop NIAOULI OIL (*M. viridiflora*) and 3 drops LAVENDER OIL (*Lavandula*

*angustifolia*) into the back of the neck, along shoulders. Avoid direct sunlight to the area for 2 hours. Apply gentle pressure to temples with fingertips and massage earlobes too. Take a relaxing bath with 8 drops of LAVENDER OIL.

Lie on your bed or sit in a comfortable chair, breathe deeply, breathe in the relaxing aroma of the massage oil, imagine it entering your body and slowly draining away the stress and tension. Feel the stress draining down through your fingers, through your toes, down into the floor and finally disappearing.

\* EFT ([www.emofree.com](http://www.emofree.com)) is a good way to fight stress.

## **SUNBURN**

Avoid burning your skin at all costs. Use a sensible factor 20, or above, on the first day and wear a hat. Do not spend a long time outside, unless shaded. (Children should always use a sunblock). Gradually come down the factor scale as necessary, re-apply during time in the sun, especially after swimming. Try to keep out of the sun between 11.00am to 2.00pm, when it is at its hottest.

If you do suspect burning, immediately find shade and apply cool compresses. A flannel moistened with 200ml of cool water, yogurt, milk or honey and a few drops of LAVENDER OIL (*Lavandula angustifolia*). Apply cool-air fan. NB. Aloe vera gel applied as soon as possible can stop the skin peeling.

In an emergency spread a pot of cold, 'live', plain yoghurt liberally over area. Do not forget to sip tepid water, sunburn can result in dehydration.

You must seek urgent medical advice if burns are severe, they cover a large area, blister, are very red and sore, or the skin is cracked and weeping. Do not risk strong sunlight again until skin has completely healed.

Apply an after-sun soother (CHAPTER 8–page 113). Do not use soap, but bathe in oatmeal 'milk' soother. Put 1 cup oats in large heatproof jug, pour on warm water and allow to stand for 10 minutes, strain through large fine mesh sieve into bath. Run tepid water through sieve, add 500ml milk or 3 tablespoons milk powder, add 5 drops TEA TREE OIL in 5ml CALENDULA OIL (*C. officinalis*) with 10 drops LAVENDER OIL and soak in bath for 10-15 minutes. Do not rub skin, gently pat dry.

Remember: oil makes baths slippery.

After bath - before bedtime, apply a little of the oil mix as follows; 20ml JOJOBA, 50ml CALENDULA OIL (*C. officinalis*), 1ml TEA TREE OIL, 5ml LAVENDER OIL. Apply liberally and wrap in cotton sheet.

Another oil, which is quite effective, is as follows: 3 drops TEA TREE OIL, 10 drops LAVENDER OIL, 5ml JOJOBA (*Simmondsia californica*) and 10ml MACADAMIA NUT OIL (*Macadamia ternifolia*). Massage into inflamed skin

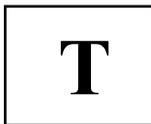
as necessary. KUKUI OIL is also a good carrier oil for sunburnt skin.

A LAVENDER OIL COMPRESS can be soothing. See CHAPTER 8 p101-102  
See BURNS – pages 100,104,130. See SKINCARE – page 165

### ***SWIMMER'S EAR***

Infection after swimming is quite common. If you are susceptible to infections apply 'waterproofing' to each ear, before you enter the water. Mix together 7ml of warmed OLIVE OIL (*Olea europaea*) and 1 drop TEA TREE OIL. Tilt your head to one side and apply 1-2 drops of mixture, in dropper, to ear (do not allow dropper to enter the ear canal, wiggle your ear, massage outside and drain off excess. Repeat with other ear. Apply just before and after swimming. This can help to guard against infection. If persistent, seek medical advice.

See Chapter 8 Tea Tree Oil Earplugs – page 104



### ***TEETH AND GUMS***

For healthy teeth and gums 'think small' when purchasing your toothbrush. It will be easier to reach into those corners. Medium soft rounded bristles are always preferable, consult your dentist if in doubt.

When brushing your teeth, add a couple of drops of mix (1 drop of tea tree oil diluted with 5ml coconut oil), to toothbrush shake off surplus, add a pea sized amount of your normal toothpaste, clean your teeth as usual and rinse well. You will be pleasantly surprised at how clean and fresh your mouth feels, your teeth will become whiter too.

Use TEA TREE OIL just once per week to maintain whiteness.

**To floss your teeth:** smooth diluted TEA TREE OIL along flossing tape or flossing string and floss as normal.

**To make your own plaque spotter:** coat lips with lip balm or petroleum jelly. Put one capful of natural water-soluble food colouring into mouth. Swish around and spit out, the plaque will be coloured, and so easier to remove. Clean teeth with TEA TREE OIL TOOTHPASTE, see below.

**Stained teeth** - or helping to prevent plaque and tartar, make your own TEA

**TREE OIL TOOTHPASTE.** Mix half a teaspoon bicarbonate of soda with 1 drop of 3% TEA TREE OIL dilution (mixed with coconut oil), and a pinch of salt, dip toothbrush onto powder mix and brush teeth, rinse very well.

TEA TREE OIL mouthwash to kill bacteria and freshen breath: mix 1 drop of TEA TREE OIL with a few drops of COCONUT OIL in a cup of warm water and a good pinch of salt, mix very well and swish around mouth for up to 1 minute, rinse well.

See CHAPTER 8 – page 110

### ***THROAT INFECTION***

See SORE THROAT – page 167

### ***THRUSH***

*Candida albicans* is a fungal yeast that grows naturally in warm moist places on the body and in the intestines. It is part of the natural intestinal flora, and in the normal context is quite harmless. If the flora balance is upset by antibiotics, medical conditions, stress, the pill, HRT, chemical douches, strong soap and deodorants etc., infection can spread, and the skin can become red, itchy and sore especially in folds of skin. It is also evident as a white discharge from the vagina. Diluted TEA TREE OIL is effective at killing off the harmful pathogens - whilst still being kind to the skin tissue.

You should always have a qualified doctor's diagnosis and advice, at the first signs of a discharge, or if persistent.

**Have a sitz bath:** put 3 drops TEA TREE OIL and 3 drops SANDALWOOD into bath. Run in a few inches of warm water, sit in water, legs apart for 5-10 minutes or use a bidet.

**Avoid** scratching infected areas. It is possible to transfer infection to other parts of the body (even rubbing your eyes can spread infection to eyelids, so be careful).

**On waking,** wash hands. Add 3 drops TEA TREE OIL to a small amount of water in a washbasin; scrub under nails with soap and water.

**Use natural,** water-soluble lubricant during intercourse. Using a condom will protect each partner - do not use tea tree oil with a condom, apply low dilution TTO in gel afterwards. The TTO may damage the condom and make it ineffective.

**Douche** area with 2 drops TEA TREE OIL mixed with a few drops JOJOBA to 100ml of warm water stir well and dip in cotton wool. Always douche vagina front to back, do not use the same piece of cotton wool twice. Make sure partner has treatment too, this will prevent re-infection. Always patch test.

**Apply** the following mix to tampon: mix 1 drop TEA TREE OIL to 7.5ml Calendula oil (*Calendula officinalis*) and 1 drop of SANDALWOOD. Patch test initially, if irritation occurs or excessive stinging discontinue use.

**Avoid** foods containing fresh yeast or that have been fermented, until infection clears. Cheese, wine, beer, alcohol, bread, doughnuts, mushrooms, vinegar, pickles, etc. and cut sugar intake.

**Eat** fresh organic fruit and vegetables to boost immune system. Garlic, onions, sharon fruit, tomatoes, kiwi fruit, carrots, papaya etc. and eat 'live' ewe's yoghurt before each meal, and before going to bed, on an empty stomach. Cranberry powder/tablets from Health food shops can be beneficial, also a \*tea made from pot marigold petals (*Calendula officinalis*).

**At home**, wipe toilet seat with a dilution of TEA TREE OIL after use.

**When travelling**, wipe toilet seat before and after use with TEA TREE OIL dilution on tissue paper.

Keep underwear clean. It is possible to become re-infected with thrush from washed and laundered underwear. As an extra precaution rub in a few drops of TEA TREE OIL into the parts of your clothes that touch the infected area and launder as normal or put 5ml of TEA TREE OIL into final rinse water.

Cotton underwear is preferable to nylon if you are susceptible to thrush.

For oral *Candida* (white spots on roof of mouth), rinse thoroughly with 2 drops TEA TREE OIL and a few drops of coconut oil in a glass of warm water, stir well, swish around for 1 minute, and spit out. \*Calendula tea is also beneficial as a drink and a rinse.

A probiotic, available from health food shops, may help.

See CHAPTER 8: TEA TREE OIL PESSARIES – page 119

## **TICKS**

Ticks are small, greyish-white, oval creatures related to spiders. If one becomes embedded into the skin do not try to pull it out, it may break off at the head and cause infection. Medical advice is needed because of Lyme disease risk.

Dab tick with TEA TREE OIL and surgical spirit 50:50 mix, at regular intervals. After 3-4 applications, if it has not let go, grip with tweezers dipped in TEA TREE OIL and rock gently back and forth until it loosens its grip. Dispose of safely. Wash area well after tick has gone, to remove residues. Dab area with a 3% TEA TREE OIL dilution twice per day, until healed.

**\*Prevention\*** Cover up well when walking through grassy farmland - apply

insect repellent to exposed skin: see – page 149.

### ***TINEA***

See CHAPTER 8: ANTI-FUNGAL OINTMENT – page 116

See ATHLETE'S FOOT – page 125

See RINGWORM – page 160

See SHAVING RASH – page 163

### ***TIREDNESS***

An aromatherapy lamp or a cup of hot water, sprinkled with a few drops of TEA TREE OIL and 1 drop of PEPPERMINT OIL can work wonders.

### ***TONSILLITIS***

Gargle with 1-2 drops TEA TREE OIL in a glass of water or use spray as for 'SORE THROAT'. For a chronic attack, add 1 drop of NIAOULI (*Melaleuca viridiflora*) to the gargle or spray (adults only). A good quality colloidal silver regularly sprayed onto inflamed tonsils can help to alleviate the problem.

See SORE THROAT – page 167

See COLDS AND FLU – page 134

See LARYNGITIS – page 151

### ***TOOTHACHE***

Book an appointment to see a dentist. In the meantime, rinse mouth with mix of: 1-2 drops of TEA TREE OIL and half a teaspoon of salt in 100ml tepid water; stir well before each 'swig', hold over area for as long as possible and spit out. Do not swallow liquid.

Avoid applying heat to cheek, it may make the infection worse.

### ***TOXIC SHOCK SYNDROME***

TSS is a rare but very serious, even fatal, illness caused by gram-positive bacteria. The bacteria can live happily on our bodies, until in certain circumstances a few strains can manufacture and release a toxin that causes TSS in susceptible people.

Around 40 cases occur per year in the UK. The use of tampons seems to give an increased risk of TSS. Cases in men, children and non-menstruating women can also occur. Menstruation can give an increased risk of TSS.

**To reduce the risk of TSS** it is important during menstruation to practice good

hygiene, changing sanitary towels at least every 4 hours, during the day. Never leave tampons in for longer than 8 hours. Always wash hands with 1 drop of TEA TREE OIL, in soap and water, before and after, you change sanitary protection. Douche vaginal area night and morning or have sitz bath. Wash toilet seat before and after using toilet with at least a 2% dilution of tea tree oil.

Boil wash the bath towel after each use.

See THRUSH – page 172

### ***TRAPPED NERVE***

Take warm bath with 8 drops of TEA TREE OIL. Rub in warmed massage oil to area and apply heat pad.

**To mix massage oil:** take 2 drops TEA TREE OIL, 1 drop NIAOULI (*M. viridiflora*) 1 drop Eucalyptus oil (*Eucalyptus smithii*) and 5ml ST JOHN'S WORT OIL (*Hypericum perforatum*). Massage in, over site of pain, and apply a gentle heat pad to the area. Patch test initially.

Cajuput is also effective for relieving some of the pain of a trapped nerve. Mix 2 drops TEA TREE OIL, 1-2 drops CAJUPUT (*melaleuca leucadendron*) in 5ml ST JOHN'S WORT OIL and apply as above. Patch test initially.

High cineole tea tree oil can be used, subject to a patch test.

**If pain persists seek medical advice.**

See LUMBAGO – pages 152

See MUSCLE ACHES – page 154

See NEURALGIA – page 157

See CHAPTER 8: DEEP HEAT RUB – page 101

### ***TRAVEL SICKNESS***

Sprinkle 1 drop of PEPPERMINT OIL onto tissues in a small plastic bag (keep bag out of reach of small children). Inhale fumes when feeling nauseous.

NB: Children should not use peppermint oil in a high strength. Either dilute well, or use the weaker peppermint essence, for children, available from supermarkets.

See MOTION SICKNESS – page 85

## U

**ULCERS**

For ulcers on the lower leg, dab on a 3%-5% dilution (3-5 drops tto oil in a teaspoon of jojoba - mix will) of TEA TREE OIL in JOJOBA (*Simmondsia californica*), twice per day until healing begins. Or, spray on a 3%-5% TEA TREE OIL dilution (diluted with aloe vera gel, glycerine and distilled water). Tea tree oil cream 3-5% can also be used.

**\*Prevention\*** If the individual suffers from poor circulation, massage lower limbs gently with a 2% dilution of TEA TREE OIL in a carrier oil (i.e. a 50/50 mix of CALENDULA and ST JOHN'S WORT OIL (*Hypericum perforatum*). Or apply a 2% TEA TREE OIL DILUTION in a neutral, unperfumed lotion (2ml of TTO per 100ml of lotion, shake well before each use). Use gentle but firm one-way strokes in an upward direction (towards the heart).

See MOUTH ULCERS – page 153

See TEETH AND GUMS – page 171

See DIABETIC SORES – page 139      See Varicose Ulcers page 177.

**URETHRITIS**

See CYSTITIS – page 138

**URTICARIA**

See HIVES– page 148

## V

**VAGINAL HYGIENE**

See FEMININE HYGIENE – page 142

See THRUSH – page 172

See TOXIC SHOCK SYNDROME (TSS) – page 174

**VAGINITIS**

See THRUSH – page 172

See CHAPTER 8: TEA TREE OIL PESSARIES – page 119

## ***VARICOSE ULCERS***

Apply oil as for ULCERS and follow the preventative measure. Be more careful when applying, it should be applied sparingly and in gentle, but even, strokes from the base of the ankle up towards the knee. Do not rub, or massage, varicose ulcers. If a compression bandage is applied and only changed twice per week, seek the advice of a medical aromatherapist.

Care should be taken to wash hands before and after changing dressings with at least a 3% TEA TREE WASH.

See DIABETIC SORES (LEG) – page 139

See BEDSORES – page 127

See ULCERS – page 176

## ***VERRUCAE***

A wart like infection, often on soles of feet. TEA TREE OIL should be applied neat, on cotton wool bud, directly to verruca(e) 3-4 times per day, as below.

Apply a drop of TEA TREE OIL to verruca, work in gently with an emery board to abrade the surface, add another drop of TEA TREE OIL and work into the verruca(e) with a cotton wool bud, apply plaster or a clean pair of socks. Continue for at least six weeks. Overnight place a small wad of cotton wool soaked in TEA TREE OIL onto area it can be held in place with surgical tape (NB. cover tto soaked cotton wool with greaseproof paper and then attach the surgical tape). Warmed coconut oil can be used as a carrier.

Anti-verrucae oil can be made by mixing 12ml TEA TREE OIL with 3ml MYRRH RESIN (dilute with CASTOR OIL (*Ricinus communis*) for sensitive skin). Store in a dark glass bottle, shake before use. Patch test initially and apply to verruca(e) 3-4 times per day with a clean plaster (NB. cover tto soaked cotton wool with greaseproof paper and then attach the plaster or surgical tape). Each time abrading with an emery board as above is beneficial. Continue applying diluted oil and covering with a plaster 3 times per day for up to 6 weeks, or until healed. NIAOULI (*M. viridiflora*) can also be applied as above. If there is no improvement, a chiropodist should be consulted.

Remember to keep area covered, at home and in public places, verrucae are very infectious. NB: Neat tea tree oil may dry the skin, use a moisturiser to keep the skin around the area supple.

**\*Prevention\*** To help prevent the risk of verrucae forming, apply TEA TREE OIL dilution (3-5% in the case of sensitive skin) to soles of feet, before and after, going barefoot in public places - beware of slippery surfaces.

## ***VIRAL INFECTIONS***

When one person in the household is infected with a virus, the chances are that other members of the family will become infected too. An anti-viral household spray should help to combat a virus spreading through the air. The solution can also be used to wipe telephone mouthpieces, toilet seats, door handles etc. In a 500ml fine atomiser spray (or plant mister) put 250ml of warm water, 3 drops TEA TREE OIL, 2 drops NIAOULI OIL, and 3 drops LAVENDER OIL (optional). Always shake well before each spray, mist air frequently (do not spray directly at people or pets). Or, use a vaporiser etc. as below.

A topical anti-viral oil for adults to use is: 2 drops TEA TREE OIL, 2 drops NIAOULI OIL (*M. viridiflora*), 1 drop LAVENDER OIL (*L. angustifolia*) in 5ml ST JOHN'S WORT OIL (*Hypericum perforatum*) and 5ml warmed coconut oil (*Cocos nucifera*). Mix and apply to viral sores and/or use as a massage oil applied to back. Add 2-3 drops of the above essential oils to an aromatherapy lamp, the bath or to a humidifier. If there are children or elderly people in the household an electric vaporiser, out of reach, is the safest to use.

See SHINGLES – page 164. See CHICKENPOX – page 132. See COLD SORES – page 135. See HERPES – page 147. See COLDS AND FLU – page 134. See MEASLES – page 152



## ***WARTS***

Small hard growths (some with a cauliflower head appearance) affecting hands, fingers, face, elbows or knees. Some are very contagious.

At first signs of wart appearing, dab with neat TEA TREE OIL 3-4 times per day. May take 6 weeks to over 3 months to clear, depending on size and length of time it has been evident. Dilute with CASTOR OIL (*Ricinus communis*), Coconut oil or jojoba for sensitive skins.

## ***WASH (antibacterial)***

A 2% tea tree wash can be made by adding 2 drops TEA TREE to 5ml of neutral hand/ body washing liquid soap, mix well, apply and rinse.

## ***WAXING***

See HAIR REMOVAL – page 145

**WHEEZING**

A wheezing child must have medical attention as soon as possible.

See ASTHMA – page 125. See BRONCHITIS – page 128

See COLDS AND FLU – page 134

**WHITEHEADS**

See ACNE – pages 107, 123. See BLACKHEADS 128

See ABSCESS & Boils– page 122

**WOUNDS**

Deep wounds should have medical attention as soon as possible.

See ABRASIONS – page 121. See BITES – pages 127, 149, 168

See SPLINTERS – page 168

**WRINKLES**

To soften wrinkles, soak small pads of cotton wool in the following mixture of oils (wring out excess and apply to a cleansed face and neck): 5ml MACERATED CARROT OIL (*Daucus carota*), 5ml VITAMIN E OIL, 5ml BLACKCURRANT OIL (*Ribes nigrum*), 5ml JOJOBA OIL (*Simmondsia californica*), 10ml KUKUI OIL (*Aleurites moluccana*), 5-10ml AVOCADO OIL (*Persea americana*), 1 drop TEA TREE OIL and 1 drop LAVENDER OIL (*L. angustifolia*). Cover with a warm towel to assist absorption. Lie back and relax for at least 20 minutes. Use once per week, to nourish and soften the skin. Avoid the eye area. A few drops can also be added to the bath or used as a massage oil.

Patch test a small area on face for 24hrs (avoid contact with eyes, if stinging occurs splash with water and discontinue use).

See SKINCARE – page 165. See CHAPTER 8 – pages 107-110

**YEAST INFECTIONS**

See THRUSH – page 172

**ZOSTER**

See SHINGLES – page 164. See VIRAL INFECTIONS – page 178

See HERPES – page 147

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