

The KITCHEN MEDICINE BOOK

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A Brother Rabbit publication



**To William Morris
and all my teachers, past and present**



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INTRODUCTION

The purpose of this book is twofold. The first is to impart a body of useful knowledge of the medicinal and nutritional benefits of common kitchen items for the maintenance and recovery of health in this day and age when we have moved far away from such "common knowledge" in our fast paced and inorganic lifestyles. The urgency of recovery of such knowledge cannot be more acute, when health insurance costs are spiraling ever upwards, companies are restricting health benefits coverage to employees, and often people's only recourse to health care is a very expensive trip to the hospital emergency room. While the information contained here is not intended as a substitute for proper medical attention, it may, I hope, be seen as an adjunct to it.

Doctors have been touting "partnership with the patient" and "self-care" for years now, as their own insurance costs and patient load restrict the amount of time and care they can spent with and give to each patient. "Complimentary medicine" as herbal and other remedies are coming to be called, is the latest frontier in medical science. This book is not intended as a treatise on medical herbalism or nutrition, for that would require a volume many times larger than the scope of this little book can afford. Anyone interested in further study of herbal or nutritional therapies is invited to seek out any of the works listed here, or to make a study at the local public library or on the internet (which itself has been a source of most of the references herein). Do discuss what you find with your doctor or naturopath; there's much food for thought here, which can open up new areas of inquiry between you and foster a relationship such as there used to be between doctor and patient.

The second purpose of this book is to give the reader some idea of the vast store of knowledge about these simple remedies which our human culture has accrued over the millennia, and thus in a small way to help preserve it. It is, then, as much a

folklore study as a piece of self-help. The benefit of such folklore is that it puts us directly in touch with our human family through time - we remember that we are part of the earth and of each other, that we are not in fact solitary units all alone out there in the world, or the universe, but deeply connected, indeed inseparably, from each other. If the thought from a mind three millennia ago can touch us, move us, help us, how much more so the thoughts we project or receive from others near to us in space and time? We are all one together.

May you be peace.

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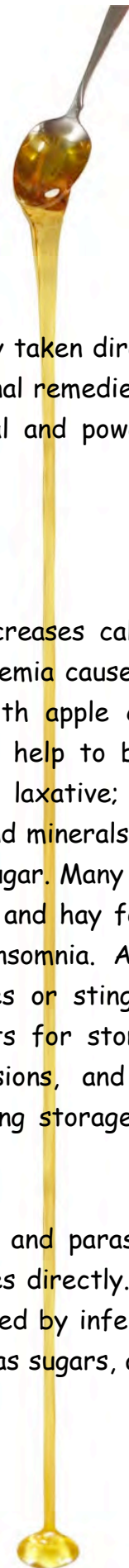
ONE RAW HONEY

Raw honey - which has not been pasteurized or filtered, and ideally taken directly from the hive - is a treasure chest of nutritional value and medicinal remedies. It contains an abundance of vitamins and minerals, and is a natural and powerful medicine, both internally and externally.

What can it do for us?

The list of Honey's beneficial functions is a long one. Honey increases calcium absorption; can increase hemoglobin count and treat or prevent anemia caused by nutritional factors; can help arthritic joints, when combined with apple cider vinegar; fights colds and respiratory infections of all kinds; can help to boost gastrointestinal ulcer healing; works as a natural and gentle laxative; aids constipation, allergies and obesity; provides an array of vitamins and minerals; and supplies instant energy without the insulin surge caused by white sugar. Many have found raw honey helpful for its positive affects against allergies and hay fever, and one or two teaspoons last thing at night can help with insomnia. As an antiseptic, honey is also a drawing agent for poisons from bites or stings or infected wounds, and has outperformed antibiotics in treatments for stomach ulcerations, gangrene, surgical wound infections, surgical incisions, and the protection of skin grafts, corneas, blood vessels, and bones during storage and shipment.

"Raw honey is exceptionally effective internally against bacteria and parasites. Plus, raw honey contains natural antibiotics which help kill microbes directly. Raw honey, when applied topically, speeds the healing of tissues damaged by infection and/or trauma. It contains vitamins, minerals and enzymes, as well as sugars, all of which aid in the healing of wounds."





So writes Dr. Cass Igram, D.O. in *The Survivor's Nutritional Pharmacy*. In a fascinating modern development, scientists and doctors are beginning to re-discover the effectiveness of honey as a wound treatment. In recent years, honey has been used effectively in clinical settings for the treatment of fist-sized ulcers extending to the bone, as well as for first, second, and third

degree burns. Complete healing has been reported without the need for skin grafts and with no infection or muscle loss. It can be applied full strength to such conditions, covered with a sterile bandage, and changed daily. When the wounds are clean, honey acts as a healer. This also is the same procedure for infected wounds, ulcerations, and impetigo. Garlic honey can also be applied directly to infected wounds which will help clean up the area of infection.

Dr. Peter Molan, Professor of Biochemistry at Waikato University, New Zealand, has been at the forefront of honey research for twenty years. He heads the university's Honey Research Unit, which is internationally recognized for its expertise in the antimicrobial properties of honey. Clinical observations and experimental studies have established that honey has effective antibacterial and anti-inflammatory properties. Astonishingly, it painlessly removes pus, scabs and dead tissue from wounds and stimulates new tissue growth. "Randomized trials have shown that honey is more effective in controlling infection in burn wounds than silver sulfadiazine, the antibacterial ointment most widely used on burns in hospitals", explains Dr. Molan.

Dr. Molan believes that if honey were used from the start in cases of septicemia, there would be far less tissue damage resulting. "The remarkable ability of honey to reduce inflammation and mop up free radicals should halt the progress of the skin damage like it does in burns, as well as protecting from infection setting in", says Dr. Molan. "At present, people are turning to honey when nothing else works. But there are very good grounds for using honey as a therapeutic agent of first choice."

Researchers believe that the therapeutic potential of honey is grossly underutilized. With increasing interest in the use of alternative therapies and as the development of antibiotic-resistant bacteria spreads, honey may finally receive its due recognition as a wound healer.

Indeed, it works: raw honey makes a sterile, painless and effective wound dressing. Apply it directly to open cuts, abrasions and burns, and cover it with a piece of gauze. The results will occur quicker than with conventional alternatives, such as salves and creams.



Honey is exceptionally effective for respiratory ailments. One Bulgarian study of almost 18,000 patients found that it improved chronic bronchitis, asthmatic bronchitis, chronic and allergic rhinitis, and sinusitis. It's an effective treatment for colds, flu, respiratory infections, and a generally depressed immune system. Whereas sugar shuts down the immune system, a good quality honey will stimulate it into action.

Here are some more ways to utilize the healing power of honey:

BURNS - Apply freely over burns. It cools, removes pain, and aids fast healing without scarring. Apart from being a salve and an antibiotic, bacteria simply cannot survive in honey.

BED WETTING - A teaspoon of honey before bed aids water retention and calms fears in children.

INSOMNIA - A dessertspoon of honey in a mug of warm milk aids sleep and works wonders.

HYPERACTIVITY - Replace all use of white sugar with honey. White sugar is highly stimulating with no food qualities. Honey provides the energy without the "spike"!

NASAL CONGESTION - Place a dessertspoon of honey in a basin of water and inhale fumes after covering your head with a towel over the basin. Very effective!

FATIGUE - Dissolve a dessert spoon of honey in warm water or quarter honey balance of water in a jug and keep in the fridge. Honey is primarily fructose and glucose, and so it's quickly absorbed by the digestive system. Honey is a unique natural stabilizer: ancient Greek athletes took honey for stamina before competing, and as a reviver after competition.

FACIAL DEEP CLEANSER - Mix honey with an equal quantity of oatmeal, and apply as a face pack. Leave on for half an hour then wash it off. Great as a deep cleanser for acne and other unwanted blemishes.

POOR DIGESTION - Mix honey with an equal quantity of apple cider vinegar and dilute to taste with water. This is also wonderful for the joints - and promotes weight loss.

HAIR CONDITIONER - Mix honey with an equal quantity of olive oil, cover head with a warm towel for half an hour then shampoo off. Feeds hair and scalp. Your hair will never look or feel better!

SORE THROATS - Let a teaspoon of honey melt in the back of the mouth and trickle down the throat. Eases inflamed raw tissues.

FOR STRESS - Honey in water is a stabilizer, calming highs and raising lows. Use approx. 25 percent honey to water.

ANEMIA - Honey is the best blood enricher by raising corpuscle content. The darker the honey, the more minerals it contains.

FOOD PRESERVATIVE - If you replace the sugar in cake and cookie recipes with honey, they'll stay fresher for longer due to honey's natural antibacterial

properties. Reduce liquids in the mixture by about one-fifth to allow for the moisture present in the in honey.

BABY'S BOTTLE - Four teaspoons of honey to a baby's bottle of water is an excellent pacifier and multivitamin additive. If the baby's motions are too liquid, then reduce the honey by half a teaspoon; if too solid increase by half a teaspoon. (Caution: Don't give raw honey to babies under 1 year old; it's just too rich.) For teething, honey rubbed on a baby's gums is also a mild sedative and anesthetic.

OSTEOPOROSIS - Research has shown that a teaspoon of honey per day aids calcium utilization and prevents osteoporosis - probably not a bad idea for anyone over 50.

LONGEVITY - The most long-lived people in the world are all regular users of honey. An interesting fact, yet to be explained, is that beekeepers suffer less from cancer and arthritis than any other occupational group worldwide.

MIGRAINE - Use a dessert spoon of honey dissolved in half a glass of warm water. Sip at the start of a migraine attack, and, if necessary, repeat after a further 20 minutes.

CONJUNCTIVITIS - Dissolve honey in an equal quantity of warm water. When cooled, apply as a lotion or eye bath.

COUGH MIXTURE - Combine 6 oz. (170 g) liquid honey, 2 oz. (55 g) glycerin, and the juice of two lemons. Mix well. Bottle and cork firmly, and use as required.

Raw honey may become granulated, as some does after a week and another maybe only after several years. If the granulations bother you, simply place the honey into a pan of hot water (not boiling) and let it stand until becoming liquid again.

History and Lore

Honey is collected and used worldwide and is one of the oldest and most revered of foods. The use of honey as medicine is mentioned in the most ancient written records.

Sugar was unknown in the ancient world, and the Romans and Greeks had no word for it; honey was universally used as the sweetener of choice. Physicians in ancient Rome used honey to help their patients fall asleep while Hippocrates, the famous 5th Century B.C. Greek physician - hailed as the "Father of Medicine" - praised honey's healing powers and formulated many honey-based cures for ailments such as skin disorders, ulcers and sores; meanwhile, the ancient Egyptians used honey to treat cataracts, open wounds, cuts and burns.

In World War I, German doctors used honey mixed with cod liver oil to surgically dress soldiers' wounds sustained in battle, and for years, singers have used honey to boost their energy and soothe their throats before performances.

How does it work?

Raw honey contains glucose and fructose, which are easily assimilated monosaccharides (simple sugars), vitamins A, beta-carotene, all the B-complex vitamins, and vitamins C, D, E and K. There's also an abundance of trace minerals: magnesium, sulfur, phosphorus, iron, calcium, chlorine, potassium, and iodine. Refined sugar, on the other hand, offers empty calories (disaccharides which have to be broken down in the small intestine before entering the bloodstream) is man-made, and has no nutritional value, containing no vitamins, minerals or trace elements whatsoever. Which would you choose?



Raw honey also contains a rich supply of live enzymes which are required for the proper functioning of all body systems. Like royal jelly, bee pollen and propolis, some active substances in honey have not yet been identified; hence they cannot be chemically reproduced.

A recent issue of *Nursing Times* reported on the significant case of a British teenager, the first instance in which honey was used on multiple meningococcal skin lesions. The antibacterial action was evident, as the mixed infection of *Pseudomonas* and *Enterococcus* cleared from the lesions in a few weeks and the number of colonizing staphylococci diminished to a harmless level. Meanwhile, Dr. Peter Molan's important research in New Zealand has been described above.

Raw honey is a tonic (a beneficial, supportive stimulant) to all systems. It's antibiotic, antiviral, and has been scientifically proven to be hygroscopic (i.e. it absorbs water). It also contains the enzyme glucose oxidase, which converts to hydrogen peroxide when exposed to water. Add this to the fact that no bacteria can live in raw honey, and it becomes a clear and natural choice for health-conscious individuals, whether it's in your cookies or in your first-aid kit.



TWO

APPLE CIDER VINEGAR



The well-known saying "An apple a day keeps the doctor away" is actually derived from the old English saying:

"To eat an apple before going to bed will make the doctor beg for his bread."

The undisputed benefits of eating apples, however, can be further multiplied many fold by the consumption of Apple Cider Vinegar (ACV). A veritable host of vitamins, minerals and other nutrients and substances is available in ACV to improve and reinforce health.

What can it do for us?

The Bragg family, who make the famous Bragg's Apple Cider Vinegar, like to tell the following story. Farmer Bragg had an old hen prepared for dinner. The old hen's meat was tough and didn't taste good (this being what happens to poultry and beef when it's deficient in potassium; human flesh suffers the same problems). To prove to the children that ACV and raw honey needed to be an important part of their daily nutrition, he would then select another old hen for the dinner table. But this time he fed that old hen ACV twice a day. For a week to ten days he gave the hen the ACV mixture. When the hen was prepared for the dinner table, the children saw the difference in the old hen's meat. They tasted how tender it was. It was just like eating a young hen.

When acid crystals harden in the joints and tissues of any animal, the joints become stiff and the tissues become hardened. The meat becomes tough and tasteless. But, when the animals are given ACV regularly, the precipitated acid

crystals enter into a solution and pass out of the body, thus making the body tissues healthier and tender. This applies to human flesh also.

Now, when body tissues hold all the precipitated acid crystals they can, the crystals next appear in the bursae and the joints of the body, resulting in arthritis and bursitis. 1 to 2 teaspoons of ACV with 1 to 2 teaspoons of raw honey in a glass of water daily will help relieve the stiff aching and prematurely old joints. You be the judge. See how elastic and well oiled your joints will become!

Even the very healthiest people must continually fight the build-up of acid crystals in the body. The strongest solvent of acid crystals is a simple drink made up of ACV, raw honey and water. This powerful daily mixture puts the acid crystals in solution so they can be flushed out of the body by the kidneys and other organs of elimination. The malic acid content of the ACV dissolves calcium deposits in joints, while ACV acts to balance the acid-alkaline pH levels in the body and helps to oxygenate the blood.

Animal proteins and fats have a tendency to thicken the blood. Blood has to circulate all over the body through the arteries, blood vessels and tiny capillaries, and it's impossible for blood to circulate freely through these incredibly thin pipes when it's thickened with too much protein. However, the natural acids in ACV help keep the blood healthier and thinner. It's been reported that soaring blood pressure can be dramatically reduced by a 48 hour fasting program with only ACV, raw honey and water (five glasses a day plus additional water) being taken; a longer program, without the fasting, is said to work just as well.

ACV also prevents the growth of bacteria and mold. The acid content of ACV helps reduce the chance of bacterial or fungal growth on fresh foods. If you use conventionally grown produce, you can remove pesticide residues by spraying fruit and vegetables with ACV, then wait five minutes and rinse. Similarly, to eliminate bacteria (from either organic



or conventional produce), spray with ACV, wait five minutes and rinse. ACV can also be sprayed on seeds during the sprouting period to prevent the growth of bacteria or fungi: simply place ACV in a mister bottle and spray your seeds thoroughly with ACV after each rinse with fresh water until the seeds are sprouted. You can rinse the ACV from the sprouts before serving if you dislike the taste!

ACV has been helpful as an aid for digestion, helping to break down minerals, protein and fats. It also inhibits the growth of unfriendly bacteria in the digestive tract. ACV has detoxifying properties, strengthens the immune system and may ameliorate viral, bacterial and fungal infections. It's used as an antibacterial and anti-inflammatory medicine and has a natural antibiotic effect.

Its benefits also include alleviating respiratory infections and may reduce symptoms such as watery eyes and nasal discharge with complete relief of pollen, food and pet allergies. If you live in a highly polluted area where allergies and sinus



infections are rampant, your system may better balance itself with a small dose of ACV each day. ACV has also been reported to cure sinus infections, acne, high cholesterol, chronic fatigue, Candida, acid reflux, sore throats, contact dermatitis, arthritis, and gout; many find it to be a general energy tonic. It can be used to sooth sunburns and insect bites, to make your hair shine, and to

treat dandruff. A wonderful side effect of drinking ACV every day is that it brings a healthy, rosy glow to one's complexion. This is great news if you suffer from a pale countenance! And, what's more - although no-one is quite sure how - ACV also seems to break down fat and is widely reported to be a gradual, yet permanent and effective aid to losing weight.

Many commercial ACVs have been pasteurized, filtered, refined or distilled in order to make the product look good, and thereby more appealing to the general public. Unfortunately this extra processing destroys much of the healthy goodness of the product. The best type of ACV to use is one made from cold pressed, organically grown whole apples, to which no chemicals or preservatives have been

added, which contains the "mother of vinegar", and is not pasteurized. This "mother", as it's affectionately known, is a natural gelatinous substance formed during the final fermentation step. This type of especially wholesome ACV can be found readily in most health food stores and even in some general grocery stores.

History and Lore

The benefits of ACV have been recognized for a long time; for over 10,000 years people have used vinegar in one form or another as both a food and a medicine for themselves and their animals. It's intriguing to think that in today's computerized, sophisticated world, we're still using one product which was discovered - quite by chance - so many millennia ago, when it was discovered that a cask of wine gone past its time had turned into a wonderful new product.

The ancients were quick to explore the remarkable versatility of vinegar. In 5,000 B.C. the Babylonians were fermenting - in commercial production - the fruit of date palms to make date vinegar, and besides consuming it also used it as a preservative. The Ancient Egyptians sang the praises of vinegar as far back as 3,000 B.C.; one Egyptian jar dating back to 8,000 B.C. was used to contain vinegar. Records show that the Egyptians were using ACV in particular not just as an antiseptic, but as a weight loss agent as well. And in later times, Cleopatra demonstrated vinegar's solvent property by dissolving precious pearls in it to win a wager that she could consume a fortune in a single meal.

In ancient Greece, Hippocrates strongly advocated drinking vinegar for his patients as an energizing tonic and a healing elixir. *Oxymel*, a medicine he often prescribed, was a combination of honey and vinegar; he instructed his students that they would find the drink very useful for expelling phlegm and promoting freedom of breathing. Hippocrates also used vinegar externally, for cleaning ulcerations and to treat swellings, inflammations and burns. Meanwhile, the Romans made vinegar from grapes, dates, figs and rye. (The word vinegar comes from the French *vin aigre*; it was actually called *aceto*, meaning "acid", by the Romans.) Caesar's armies used sweetened diluted vinegar called *posca* (poor man's wine) as a preventative medicine much as we take vitamins today, to cook with, for its antiseptic properties against insect and snake bites, and to clean their wounds after battle (a life-saving

practice emulated as recently as in World War I). In the 2nd Century A.D., the great physician Galen prescribed the combination of honey and vinegar for coughs. It's also recorded that Hannibal used vinegar to remove boulders in his path across the Alps by heating the boulders, and then dousing them with cold vinegar which cracked into smaller moveable stones; and when faced with slippery snow, he used vinegar to dissolve it.

During the Sung dynasty in ancient China, vinegar was listed by Tzu-Mu as one of the seven necessities that even the poorest people couldn't do without. Ancient Japanese documentation has vinegar reaching an art form in the Heian Period with the addition of vinegar from fruits and flowers. In the 17th Century, Europeans discovered the medicinal value of vinegar and prepared antiseptic vinegar, vinegar syrups and a variety of medical types of vinegar. In 1703, B. Boyles, a fellow of the Royal Society of London, recommended vinegar as a gargle.

Vinegar was a common food preservation method - for vegetables as well as for fruits and meats - since ancient times. Salting, pickling and dehydrating were the only ways to preserve food for thousands of years and a number of such recipes were developed by trial and error.

How does it work?

It's suggested that ACV has such curative abilities because it causes the pH (acidity) levels to become more alkaline or, in the case of too much alkalinity, more acidic. Urinalysis studies done in the 1950s by D. C. Jarvis (author of *Folk Medicine*) showed that pH levels in the body become highly *alkaline* before and during an allergy attack (contrary to what you would normally read on the subject). If you're going to try ACV for allergies, or even to prevent sickness, we suggest you do some investigation of your own by buying a pH test kit at a local pharmacy, garden nursery, or even pool supply store. You can use these kits or pH strips to test your urine to see if you are more alkaline or acid during an allergy attack, virus or bacterial infection. Once you ascertain your pH levels, you can adjust your dosage of ACV accordingly. Experiment to find the pH balance at which your body functions optimally.



ACV in itself is alkaline because of its ash content; this means if the ACV is burned, what's left over becomes ash. When you check for the pH of that ash and dissolve it with water, the content is alkaline. Whenever our body digests anything it undergoes oxidation, which is similar to burning. The end result is that you can determine whether the end product is alkaline or acid.

ACV has anti-fungal, anti-bacterial, and anti-viral properties, primarily coming from the malic acid and acetic acid portion of the vinegar. ACV acts as a buffer in the body because the acetic acid reacts with base or acid compounds to form an acetate, therefore rendering them chemically bioavailable for the body's utilization. Additionally, ACV can reduce the toxicity of certain compounds by converting the toxin into an acetate compound which is less toxic. This is why ACV works so well for insect bites and certain skin allergies.

Scientists have measured *ninety* different bioactive substances in ACV, such as thirteen types of carbolic acids, four aldehydes, twenty ketones, eighteen types of alcohols, and eight ethyl acetates. ACV provides enzymes and important minerals and trace elements such as potassium, calcium, magnesium, phosphorous, chlorine, sodium, sulfur, copper, iron, silicon, fluorine and other trace minerals. ACV's vitamin content includes Vitamin C, Vitamin E, Vitamin A, Vitamin B1, Vitamin B2, Vitamin B6, beta-carotene, and Vitamin P (bioflavonoids). ACV also contains malic acid, acetic acid, tartaric acid, propionic acid, lactic acid, numerous enzymes, and amino acids, as well as roughage in the form of potash and apple pectin.

The secret of ACV's amazing nutritional value goes beyond the nutritious apples which form its basis, and comes from the fermentation of apple juice to hard apple cider, followed by a second fermentation to ACV itself. This natural product retains all the nutritional goodness of the apples from which it was made, and it's also fortified with the extra acids and enzymes produced during the two

fermentation steps. It's the sum of all these ingredients that give ACV its amazing health benefits. Be aware that if you choose to buy white distilled vinegar, it has none of these beneficial constituents!



THREE

BICARBONATE OF SODA (BAKING SODA)



Many components of the modern western diet - meats, fish, dairy products, most grains, sugars, alcohol and caffeinated drinks (in fact, almost everything except vegetables, millet, most fruits and, as we have just seen, Apple Cider Vinegar) - contribute to one's body becoming too acidic. This in turn can open the door to a variety of problems, some of them (including arthritic complaints) potentially serious if this acidic condition persists for many years.

This is because your body will attempt to compensate by retaining alkaline salts in the bloodstream to offset the increase of tissue acidity. Since your body can only tolerate a small imbalance in blood pH (the acid-alkali balance), it will rob alkaline components from other places - including your body's precious alkaline reserves - in an effort to restore a proper pH equilibrium. This can result in heartburn, digestive distress, stomach upset, fatigue, and a multitude of other symptoms. Simple, inexpensive kitchen baking soda can fix this.

What can it do for us?

Very useful in keeping the body healthily alkalized is half to one teaspoon a day of baking soda in water. Don't take it with or within an hour of meals, though, as the stomach needs to retain its acidity in order to perform its digestive functions effectively. A great deal of tap water (or even store-bought spring water) is surprisingly acidic; filtration will remove toxins but will not affect the pH balance of the water. (Baking soda can be used to reduce the corrosion of acidic drinking water in municipal water supplies, therefore reducing the toxicity of the lead and copper which are dissolved from the pipes.) You can purchase a pH testing kit for

home use very cheaply, and if the water you usually drink is acidic (i.e. with a pH of less than 7.0), you could remedy this cheaply and easily by adding a pinch of baking soda to all the water you consume.

Baking soda is also effective for polishing teeth (without scratching the tooth surface) and fighting bad breath (sprinkle a little on the toothbrush bristles). It can even be tried for exfoliating skin when acne is a problem (add a little to a facial cleanser in place of using a commercial facial scrub).

When baking soda is added to bath water, sunburn sufferers often experience a notable reduction in pain. Place a cup (8 ounces) of baking soda under the running bath tap so it dissolves completely, and soak in a lukewarm tub for about half an hour. Such a bath will soothe the pain - and you won't have to endure the stinging sensation of a shower. Adding baking soda to a hot bath at any time also helps wash acid wastes out of the body.

In addition, baking soda can be used in cool (but not cold) bath water to soothe other skin irritations and alleviate itching from prickly heat, bee stings, insect bites, and other minor skin ailments. A paste (made with just enough water to get the desired sticky consistency) placed on an insect bite or sting and allowed to dry is a time-tested approach for drawing out and neutralizing poisons.

People with skin allergies who tend to react to commercial laundry detergents might find that washing their clothing and bedding in baking soda is less irritating.

Simple baking soda may also weaken the desire for a cigarette as well as reducing the desire for sugar and sweets. It's used in kidney dialysis to reduce the level of acids in the bloodstream, and acts to prevent bacterial growth in food products. For general purposes of alkalinizing the body, quarter to half a teaspoon twice a day in water is usually enough.

History and Lore

The medicinal and self-care uses of baking soda were recognized by the United States Pharmacopoeia (USP) more than 150 years ago. For years, baking soda has

been recommended because of its antacid effects, mainly to neutralize stomach acids that can cause heartburn, acid indigestion, and related discomforts.

How does it work?

As it mixes with the hydrochloric acid in the stomach, baking soda triggers a chemical reaction, and its end products are salt (NaCl, or sodium chloride), carbon dioxide (CO₂), and water. The water is harmless, and the carbon dioxide gets released as a gas, producing a familiar burp once the acid is neutralized.

However, commercial antacid products only lessen symptoms of over-acidity by blocking the production of acid and can often produce unwanted side effects. They alter your body's ability to absorb protein and calcium which can then create the need for a calcium supplement to compensate.

If it were not for the presence of sodium - which makes the tissue in the stomach highly alkaline - the lining would be destroyed by the hydrochloric acid in the stomach. The stomach, intestines, joints, and ligaments are in constant need of natural food-source sodium. Naturally occurring sodium is *not* to be confused with the sodium from common commercial table salt, which is processed with extreme heat using many chemical and bleaching agents (see the chapter on Salt which follows).

Potassium neutralizes acid wastes, and in combination with sodium, maintains a healthy acid/alkaline balance. Potassium and sodium are nearly always found together in the body and perform many of the same functions. Second only to breathing and maintaining a heartbeat the most important metabolic function our body performs is to maintain a balanced pH. Baking soda, in small amounts, performs this function.



FOUR SALT



Salt is not your enemy. The phrase "Salt of the earth" is not a compliment for nothing! Salt is a vital substance for the survival of all living creatures, particularly humans.

Water and Salt regulate the water content of the body, and water itself regulates the water content of the interior of the cell by working its way into all of the cells it reaches. It has to get there to cleanse and extract the toxic wastes of cell metabolisms; Salt forces some water to remain outside the cells, and balances the amount which stays outside. So there are two reservoirs of water in the body; one reservoir is held inside the cells of the body, and the other reservoir is held outside the cells. Good health depends on the most delicate balance between the volumes of these two reservoirs. This balance is achieved by Salt - unrefined Salt. When organic, unrefined Salt is lacking in your diet, weakness and sickness often follow.

The problem with Salt is not the Salt itself but the condition of the Salt we eat. Our regular table Salt no longer has anything in common with natural crystal Salt from rocks or the sea. Table Salt nowadays is mainly the "pure" chemical sodium chloride - and not Salt as it occurs in nature. With the advent of industrial development, our natural Salt was "chemically cleaned" and reduced to simple sodium chloride. Major producing companies dry their Salt in huge kilns with temperatures reaching 1200°F, changing the Salt's chemical structure which in turn adversely affects the human body. The common table Salt we use for cooking has only two or three chemical elements. Seawater, in contrast, has 84 chemical elements. For our body to be healthy we need all those minerals. When we use "common Salt", we are in deficit of 81 of these natural constituents, which means we're inadvertently causing ourselves to grow weaker, imbalanced and more

susceptible to diseases. Use sea Salt always - or rock Salt, which in most cases is almost as rich in nutrients. The phrase "unrefined Salt" will be used in the rest of this chapter to cover both varieties of rich, natural Salt.

What can it do for us?

When water and unrefined Salt are combined, they form a new substance, Sole ("so-lay"). Sole is the fundamental mineral infusion for your body. You can replace



electrolytes and balance your energy simply and naturally by drinking a Sole solution each day. The Sole is an excellent product for balancing the pH of your body. With the Sole, one can also get rid of toxic, accumulating heavy metals such as lead, mercury, arsenic, nickel and cadmium because unrefined Salt is able to break up their molecular structures.

"Sole" drinking therapy

Everyone knows that Salt dissolves in water, right? But it won't dissolve forever. Did you know that if you keep adding Salt to a glass of water you get to a point where the water becomes "super-salty" and saturated with Salt? Did you also know that when the water becomes "super-saturated" in this way that the surplus Salt will just sit on the bottom of the glass without dissolving? This is exactly what Sole is: super-saturated, super-salty water - as salty as it can possibly get. Here's how to make it:

Place one inch of unrefined Salt in a glass jar, preferably one with a lid. Add two to three inches of good quality spring water to the Salt, completely covering the crystals with water, and let it sit overnight.

If all the Salt crystals seem to have dissolved, gradually add some more unrefined Salt to the water. Your Sole is ready when the water becomes fully saturated with Salt and just cannot hold any more. At this stage the Salt will no longer dissolve. There should always be undissolved Salt crystals visible in the jar. As you start to use up the Sole, add more water and more Salt until the water is again saturated in the same way. Remember, there should always be undissolved Salt crystals on the bottom of the jar. This is your visual proof that the water is totally saturated with Salt.

Each morning, before eating or drinking anything, add one teaspoon of the Sole to a glass of spring water and drink it all. Your grateful body will benefit from the considerable value of the unrefined Salt until the next morning..

Keep the lid on the jar to prevent the water from evaporating. Otherwise, no special storage is needed. The fully saturated Sole will keep forever. Salt is naturally anti-bacterial and a natural fungicide. It can never spoil or go bad.

Besides drinking a glass of the Sole each morning, the Sole can also be used undiluted for tooth brushing. As a mouthwash, it helps reduce gum bleeding.

Body Peeling

Do you feel tired and without energy? Make some time and treat yourself to a full "Body Peeling". First take a shower with warm water to open the pores. A Body Peeling made from a mixture of unrefined Salt and oil is ideal for detoxing. You'll achieve the same purifying effect as going on a several day fast. At the same time, you'll receive an energy boost due to the high concentrated minerals in the



Salt mixture, which will be absorbed through the skin - a powerful organ of absorption and elimination which is easy to forget about. The Peeling will also enhance the blood circulation in your skin.

Directions for Use

In a little bowl, mix 3.5 Tbs. of unrefined Salt with 1 Tbs. of cold-pressed oil (organic is best) and a quarter tsp. of 100% pure Lavender oil. Stir the mixture until smooth. Lie down on a large beach towel and rub your whole body with this mixture. (You can relax even more deeply if somebody else does this for you!) Wrap yourself in the towel, then cover yourself with a blanket. Keep the Peeling on your skin for about half an hour. You'll experience a warm flow throughout your body, which tells you that the body cells are doing their work. Rinse off the Peeling with warm water and gently pat dry your skin. *Don't* rub it dry. The oil will remain on your skin and make it soft and velvety.

Arthritis and Gout

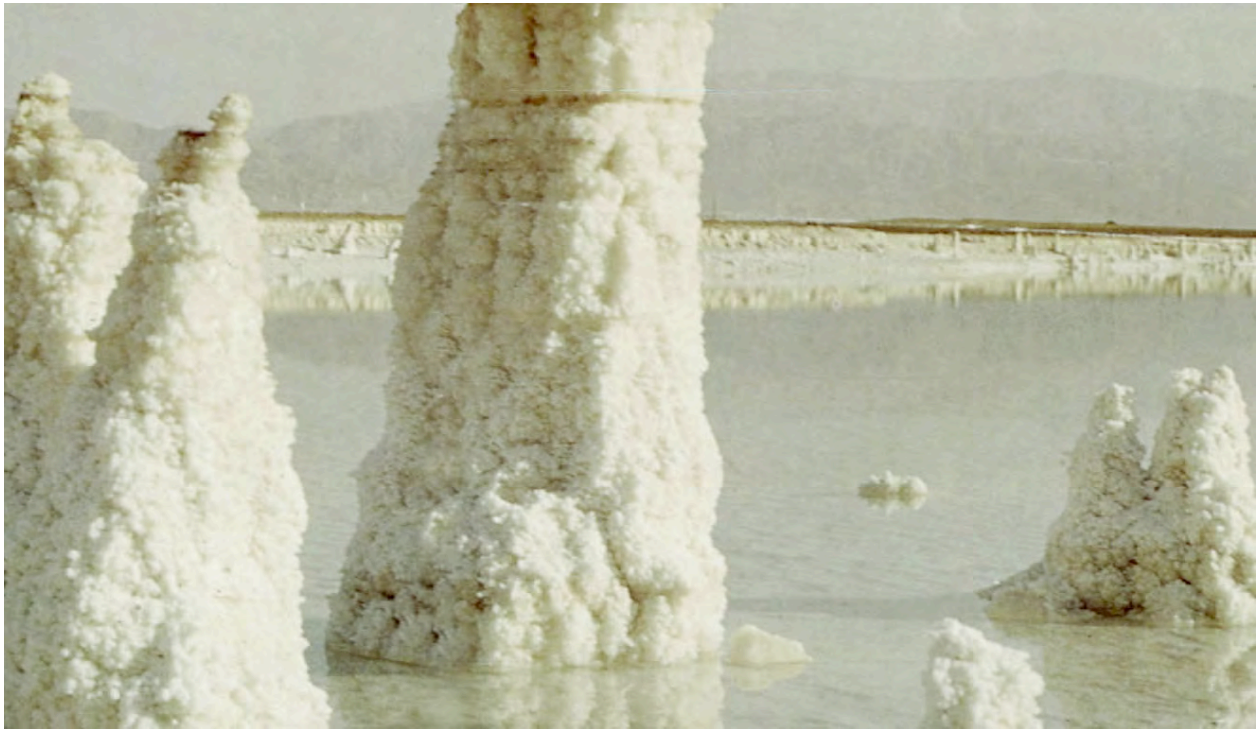
- On an empty stomach, drink 1 tsp. of Sole with good quality water.
- Continue drinking good quality water throughout the day, at least 2 to 3 quarts.
- Make a cold Sole poultice of pure Sole solution and apply it to the affected areas. Wrap with a dry cloth bandage.

Osteoporosis

- On an empty stomach, drink 1 tsp. of Sole with good quality water.
- Continue drinking good quality water throughout the day, at least 2 to 3 quarts.
- Fill a linen or cotton bag with unrefined Salt crystals and heat it in the oven to 125-140°F. Put the heated bag directly on your aching joint or other sore body area for twenty minutes. If you have joint pains in your hands and feet, you can also bath them in a Sole solution. Water at body temperature (98.4°F) is ideal for this.

Asthma/Bronchitis

- On an empty stomach, drink 1 tsp. of Sole with good quality water.
- Continue drinking good quality water throughout the day, at least 2 to 3 quarts.
- Give yourself inhalation therapy once or twice a day with a 3% brine solution for 10-15 minutes. Heat 4-8 quarts of water until boiling. Add the Salt (1 oz, or 30 g, for each quart of water) and let it dissolve. Cover your head with a towel and inhale the vapors, keeping your face far enough away from the hot steam so as not to scald yourself.



Open Wounds: a poultice made of Sole

Open wound injuries can be treated effectively with a solution of half an oz. (15 g) of unrefined Salt diluted in half a cup of water. Unrefined Salt is a natural anti-bacterial agent, and it's not necessary to use a more concentrated solution than this (if you use a higher ratio of Salt to water the injury may give you an

unpleasant burning feeling). Use only high quality, non-carbonated spring water to treat open wounds. Take sterile gauze, soak it in the Sole solution, rinse it and apply it on the wound. Then wrap a dry cloth around it.

A Brine Shirt for Detox and Flu or Fever Relief

Dip a clean cotton shirt in a 3% Sole solution - 2 Tbs. of crystal Salt diluted in 1 quart of water. Rinse the shirt thoroughly and put it on. Wrap yourself in a dry towel and lay in bed, covered with a blanket. After about half an hour you'll start sweating (you can support the effect by drinking a cup of Linden blossom tea). Stay in bed for an hour to an hour and a half. Then take off your shirt and shower, and treat yourself to an hour's rest.

This "Brine Shirt" is an excellent detox, and stimulates the metabolism; it's very helpful if you're suffering from flu with a high temperature, and is usually better than a brine bath.

Brine Soaked Socks

This has a similar effect as the Brine Shirt, but is especially helpful if you're suffering from cold feet or gout. Soak a pair of clean cotton socks in a 3-5% Sole solution (2-4 Tbs. of unrefined Salt diluted in a quart of water). Wring the socks thoroughly and put them on, then wrap your feet in a dry towel. Leave them on for about an hour, then treat yourself to an hour's rest.

Dental Hygiene

Healthy teeth and gums are not only visually attractive but are also most important



for our overall health. Unrefined Salt is very valuable for dental hygiene. Most dental problems derive from an over-acidic condition in the mouth and throat. Unrefined Salt creates pH-neutral (pH-balanced) mouth flora and helps protect your tooth

enamel. Brush your teeth every morning with concentrated Sole. Press the Sole through your teeth with the help of your tongue. Gargle with Sole for about three minutes, and then spit it out again.

Psoriasis

Psoriasis is usually inherited and appears mostly at adulthood. However, the disease does not have to be lifelong. An alkaline, vegetarian diet is the basis of every effective treatment: fresh vegetables (but not brussel sprouts or artichokes), salads, fresh fruits, cold pressed virgin olive oil, freshly squeezed fruit and vegetable juices, non-carbonated water and herb teas.

Added to this, Salt therapy can work wonders. Many patients have reported that swimming or floating in the Dead Sea, which contains the highest natural Salt concentration in the world, relieves symptoms magically - although symptoms are likely to return without home treatment as well.

Treating Psoriasis at home

Every morning, on an empty stomach, drink a glass of water with 1 tsp. of concentrated Sole. Drink 2-3 quarts of spring water during the day. Take an unrefined Salt bath twice a week for 10-20 minutes. Start with a 3% Sole solution concentration (6 lbs of unrefined Salt diluted in a full bath of water). Gradually increase the concentration up to 8% for subsequent baths. The Sole bath will not only moisturize your skin but also help stop inflammation. A highly concentrated Sole bath is detoxing, and becomes more so the hotter it is: use a temperature that feels comfortable for you, but no more than body temperature (98.4°F). This works even better if you can let the sun dry you off naturally (five to ten minutes are sufficient if you're lucky enough to live in sunny climes!). Parts of the body that may be more infected than others, such as elbows and knees, can be massaged with concentrated Sole solution.

Herpes

Herpes sores can be painful, annoying and persistent. The herpes virus is always present in our systems, but if we're healthy it's naturally held in check. However, if our immune system becomes weakened, the virus can multiply at an explosive rate and herpes blisters develop. If they appear, try using Sole. Sole *always* strengthens your immune system.

- On an empty stomach, drink 1 tsp. of Sole with good quality water.
- Continue drinking good quality water throughout the day, at least 2 to 3 quarts.
- Apply some pure, concentrated Sole solution (25%) directly to the infected herpes blister with a cotton swab every hour.

History and Lore

Both sea Salt and rock Salt were well known to the ancient Greeks, who observed that eating salty food affected basic body functions such as digestion and excretion; this led to Salt being used medically. Hippocrates strongly advocated Salt in the 5th Century B.C. Salt-based remedies were thought to have expectorant powers. A mixture of water, Salt, and vinegar was employed as an emetic. Drinking a mixture of two-thirds cow's milk and one-third Salt water, in the mornings, on an empty stomach was recommended as a cure for diseases of the spleen. A mixture of Salt and honey was applied topically to clean bad ulcers and



Salt water was used externally against skin diseases and freckles. Hippocrates also mentions inhalation of steam from Salt water. So, two millennia ago, Greek medicine had already discovered topical use of Salt for skin lesions, drinking Salty, mineralized waters for digestive problems, and inhaling Salt for respiratory diseases.

The doctor and alchemist Paracelsus (1493-1541 A.D.) introduced an entirely new medical concept. He believed that external factors create disease and conceived a chemically oriented medical system, contrasting strongly with the philosophy of the herbal medicine that was prevalent at the time. However, he also advocated Salt. Only salted food could be digested properly, Paracelsus wrote: "The human being must have salt. He cannot be without salt. Where there is no salt, nothing will remain, but everything will tend to rot." He recommended Salt water for the treatment of wounds and for use against intestinal worms. He claimed that a hip-bath in Salt water was a superb remedy for skin diseases and itching: "This brine", he said, "is better than all the health spas arising out of nature." He described the diuretic effect of Salt consumption and prescribed Salt preparations of different strengths that were used for instance against constipation.

How does it work?

When water is available to get inside the cells freely, it's filtered from the salty reservoir outside the cells and is injected into the cells that are being stressed because of their water shortage. The design of our bodies is such that the extent of the reservoir of water outside the cells is expanded to make the extra water available for filtration and emergency injection into vital cells. The brain commands an increase in Salt, and water retention by the kidneys. This is how we can sometimes get an oedema when we don't drink enough water. We might be *retaining* it instead!

Initially, the process of water filtration and its delivery into the cells is more efficient at night when the body is horizontal. The collected water, which mostly pools in the legs, no longer has to fight the force of gravity. If reliance on this emergency cell hydration continues for long, the lungs start to become waterlogged at night and breathing becomes difficult; more pillows are needed at night to prop the body upright to sleep. This condition is the consequence of dehydration. However, it's possible to overload the system by drinking too much water at the start of a remedial program. Increases in water intake must be slow and spread out, until urine volume begins to increase at the same rate that water is consumed.

When we drink enough water to pass clear urine, we also pass out a lot of the Salt that was held back. This is how we can get rid of oedema fluid in the body: by drinking more water. Not diuretics - but more water! This seems so non-intuitive that many people don't even believe this: but it's nevertheless true. Try it and find out for yourself!

If you have an extensive oedema - with symptoms of your heart beginning to beat irregularly or rapidly after little physical effort - your increase in water intake should be gradual and spaced out, but *not* withheld from your body. Salt intake should be limited for two or three days because your body is still in a kind of overdrive mode to retain it. Once the oedema has cleared up, Salt should no longer be withheld.

Salt - i.e. sodium - is an electrolyte that your body needs. Electrolytes are minerals that dissolve in water and can carry electrical charges. Pure water does not conduct electricity, but water containing Salt does.

The three major electrolytes are sodium, potassium and chloride. Other body electrolytes are magnesium, calcium, zinc, and many others in very small amounts; these are the so-called trace minerals. They're electrically charged so they can carry nutrients into and out of your cells, and also carry messages along your nerves and help control your heartbeat.



Since your body is made mostly of water, these minerals can be found everywhere in your body. They're inside your cells, in the spaces between your cells, in your blood, your lymph, and everywhere else. Since they hold an electrical charge they can move through your cell membranes and thus carry other nutrients with them into the cells, and transport waste products and excess water out.

In recent years there has been much publicity about the need to reduce Salt consumption in societies where Salt is added to many processed foods. What's been forgotten is that some Salt intake is absolutely necessary; people need Salt, sodium chloride, to survive. The chemical requirements of the human body demand that the Salt concentration in the blood be kept constant. If the body does not get enough Salt, a hormonal mechanism compensates by reducing the excretion of Salt in the urine and sweat. But it cannot reduce this output to zero. On a completely Salt-free diet the body steadily loses small amounts of Salt via the kidneys and sweat glands. It then attempts to adjust this by accelerating its secretion of water, so that the blood's Salt concentration can be maintained at the vital level. The result is a gradual dehydration of the entire body, and finally death.



An eight-year study of a New York City hypertensive population stratified for sodium intake levels found those on low-Salt diets had more than *four times* as many heart attacks as those on normal-sodium diets - the exact opposite of what the "salt hypothesis" would have predicted.

The past president of the American Heart Association, Dr. Suzanne Oparil of the University of Alabama, Birmingham, said her personal view is that the government may have been too quick to recommend "Salt restriction as a solitary recommendation for the population for the prevention or the treatment of hypertension" and therefore that "everyone should reduce their salt intake". In 1995 Dr. Jeffrey Cutler documented no health benefits of low-sodium diets.

Potassium and sodium are very closely linked. To keep your body healthy, your cells need to have a lot of potassium inside and a lot of sodium in the fluid outside. To keep the balance, potassium and sodium constantly move back and forth through the cell membrane.

Cells need the correct balance of sodium and potassium. The ratio that your body maintains is about three parts potassium and one part sodium. Thus, the problem of

too much sodium (Salt) cannot be overstated. If the body becomes oversupplied with sodium compared to the amount of available potassium, the body excretes more of it to try to maintain the balance. If the kidneys cannot excrete it, this causes the vascular system to constrict, and then the body dilutes the extracellular sodium in the body by increasing the fluid volume in the body. Thus, you get fluid retention.

The solution here is to *increase the potassium intake* and decrease the sodium. How? Bananas, pumpkin seeds, apples, apple cider vinegar (a rich source), oranges and other fruits... and natural, unrefined sea or rock Salt (which contains potassium anyway).

We need less than 500 mg of sodium a day to stay healthy. This is enough to accomplish all the vital functions that sodium performs in the body - helping maintain normal fluid levels, healthy muscle function, stomach and nerve function, and proper acid-alkaline balance (pH) of the blood.

Taking diuretics may lead to a Salt deficiency. Symptoms of sodium deficiency can be serious enough to include abdominal cramps, anorexia, confusion, dehydration, depression, dizziness, fatigue, flatulence, hallucinations, headache, heart palpitations, and impaired sense of taste, lethargy, low blood pressure, memory impairment, muscular weakness, nausea and vomiting, poor coordination, recurrent infections, seizures and weight loss.



Diarrhea or vomiting can also cause you to quickly lose electrolytes (especially potassium) with the fluid. If stricken, you need to replace the fluids and electrolytes quickly.

A good way to do this is to make an 8 ounces glass of a mixture of apple, orange and other fruit juices - freshly squeezed if at all possible - with half a teaspoon of raw honey and a pinch of unrefined Salt. In another glass, combine 8 ounces of water and a pinch of baking soda (sodium bicarbonate). Take a few sips from one glass and then a few sips from the other until you've drunk them both. The fruit

juice contains the potassium you need, while the Salt and baking soda provide sodium. The sugar from the juice and honey helps you absorb the electrolytes.

The best advice: throw away your refined common Salt (which didn't cost you much anyway), buy some good quality unrefined Salt instead, and use it freely!



FIVE WATER



This may seem obvious. Everyone knows we should drink water. But could you actually be chronically dehydrated?

Many people are, and never realize it. Contrary to popular belief, a dry mouth - or feeling thirsty - is by no means the first sign of dehydration. Our bodies require *at least* eight glasses of water per day - more during exercise, illness, and hot weather. People often think that even if they don't actually drink water, they're getting enough by drinking coffee, tea, soft drinks, juice or beer. The truth is that many of these drinks have a diuretic effect, encouraging the body to excrete water through urination, rather than retaining it.

Think about a grape versus a raisin. The one is plump and full and juicy, containing all its natural water. The other is small, dry, shriveled, its water gone. Although a grape in dehydrated condition is still a valuable and nutritious fruit, the human body when dehydrated does not function at its best and may be at risk from many ailments.

What can it do for us?

The body is composed of about 70% water, and water is required for many of its essential functions. Water is utilized as a solvent, and also provides the means to transport nutrients, hormones and other vital supplies. It's used to produce hydroelectric energy, especially in the brain. It's essential for maintaining cell structure. Water is also necessary to enable proteins and enzymes to function more efficiently. Chronic dehydration can lead to a loss or decrease in all these functions and may ultimately result in disease or can worsen an existing condition.

Most of the body's water is found within the cells, and the next largest amount is in the fluid surrounding the cells. If water is not replaced frequently, this surrounding fluid may continue to accumulate waste material and other contaminants. The pumps in your cell membranes may not work as efficiently because allowing dirty water into the cell can cause cellular damage or cell death. You wouldn't bathe in the same bath water without first cleaning the tub and adding fresh water. Why would you allow your cells to be surrounded by an accumulation of waste material?



Life on this planet began in water; even the developing fetus is surrounded by water. When the body is deprived of water, a water rationing system takes effect. Histamine, a neurotransmitter, becomes active and redistributes water throughout the body. The order of circulatory priority is the brain, lungs, liver, kidneys, and glands, and then come the muscles, bones and skin. During periods of dehydration, histamine insures that these vital organs have enough water to function properly. If enough water is not supplied, it must be taken from within the body. Chronic dehydration can cause histamine to become excessively active. This may result in symptoms that may be mistaken for other disorders such as allergies, asthma, dyspepsia, colitis, constipation, rheumatoid arthritis, and chronic pains in various parts of the body such as migraine headaches. Here are some details of why increasing one's water intake can help:

Angina

Heart pain - angina - is a sign of water shortage in the heart-lung axis. It should be treated with increased water intake until the patient is free of pain and independent of medications. Medical supervision is prudent; however, increased water intake is angina's cure.

Arthritis

Another possible complication of dehydration is joint pain. The cartilage in your body, including your joints, is composed mainly of water. As cartilage surfaces glide over one another, some exposed cells become worn and peel away. New cartilage is normally produced to replace the damaged cells. But due to the lack of blood vessels in cartilage, water is needed to transport the nutrients required for maintenance and repair. Dehydration may increase the abrasive damage and delay its repair, resulting in joint pain.

Asthma and Allergies

Asthma and allergies can be another indication that the body has increased its production of histamine. Asthma, which also affects tens of millions of children in the western world and kills several thousand of them every year, is a complication of dehydration in the body; it's caused by the drought management programs of the body. A large amount of water is normally lost from the lungs as water vapor through expired air. Histamine, which also controls bronchial muscle contractions, may attempt to restrict water loss through expiration by constricting the bronchial muscles. Increased water intake will prevent asthma attacks. Asthmatics



need also to take more salt to break the mucus plugs in the lungs that obstruct the free flow of air in and out of the air sacs.

Not recognizing asthma as an indicator of dehydration in the body of a growing child not only will sentence many thousands of children to die every year, but also will permit irreversible genetic damage to establish in the remaining millions of asthmatic children.

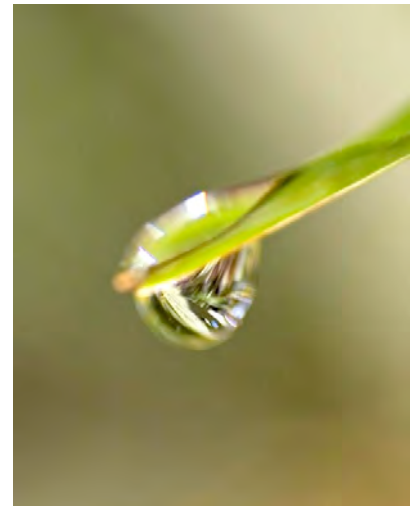
Cholesterol

High cholesterol levels are an early indicator of drought management by the body. Cholesterol is a clay-like material that's poured in the gaps of some cell membranes to safeguard them against losing their vital water content to the osmotically more powerful blood circulating in their vicinity. Cholesterol, apart from being used to manufacture nerve cell membranes and hormones, is also used as a "shield" against water depletion of other vital cells that would normally exchange water through their cell membranes.

Colitis

Colitis pain is a sign of water shortage in the large intestine. It's associated with constipation because the large intestine constricts to try to squeeze the last drop of water from the excrements - thus the lack of water lubrication.

Not recognizing colitis pain as a sign of dehydration will cause persistent constipation. Later in life, it will cause fecal impacting: it can cause diverticulitis, hemorrhoids and polyps, and appreciably increases the possibility of developing cancer of the colon and rectum.



Constipation

Dehydration causes constipation. When water is in short supply in the body, the colon will act to restrict unnecessary water loss through the stools. Colon muscles will contract to squeeze out and subsequently reabsorb water back into circulation. This can result in harder stools that are not only more difficult to pass, but may also irritate and weaken the walls of the colon, resulting in small pockets known as diverticuli. Since the water that the colon reabsorbs back into circulation is not filtered water, but wastewater that was originally due to be excreted, the liver and the kidneys must then filter it. This may place additional strain on these overworked organs.

Diabetes

Diabetes is also another disease that's strongly influenced by water consumption. Adult-onset diabetes is another condition which is brought on by severe dehydration of the human body. In order to have adequate water in circulation and to meet the brain's priority water needs, the release of insulin is inhibited to prevent insulin from pushing water into all the body cells. In diabetes, only some cells get survival rations of water. Water and salt will reverse adult-onset diabetes in its early stages before it becomes an autoimmune disease with a destruction of insulin-producing cells. Not recognizing adult-onset diabetes as a complication of dehydration will, in time, cause massive damage to the blood vessels all over the body. It can cause eye damage, even blindness. It's capable of causing loss of the toes, feet and legs from gangrene. And the diabetes industry is a multi-billion dollar industry of sickness treatment and prescription drugs. Why would that industry want to tell people that all they need to do is drink more water, avoid soft drinks, and cut down on caffeine in order to greatly improve their health?



The answer is that there's no motivation whatsoever for any medical industry or group or drug company to educate people with the truth about water and human health. They're not only unwilling to tell the truth, they're also intellectually unwilling to *accept* the truth about the importance of adequate hydration because it runs counter to their profitable

paradigms of disease treatment. In other words, an executive working at a pharmaceutical company, making millions of dollars a year from pharmaceutical sales, is unlikely to accept psychologically the idea that diseases could be prevented or reversed by drinking something freely available to the public. The thought will not penetrate that person's belief system.

Depression

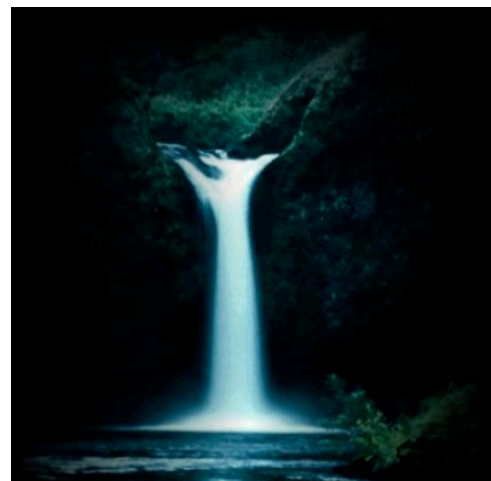
Depression can be another symptom of chronic dehydration. The amino acid tryptophan is required by the brain to produce the neurotransmitter serotonin, which in turn is needed to make melatonin. An adequate amount of water is required for tryptophan to be transported into the brain. Dehydration may limit the amount of tryptophan available to the brain - and to worsen things, high histamine levels (also triggered by dehydration) may actually stimulate tryptophan's breakdown in the liver.

Dyspepsia

Dyspeptic pain, which can range from simple heartburn to gastro-oesophageal reflux disorder (GERD), may be one of the early signs of dehydration. During the early digestive process when food enters the stomach, hydrochloric acid (HCl) is secreted to activate the enzymes to breakdown the proteins found in meat and dairy. The acidic contents of the stomach, called chyme, are then pumped into the small intestine by passing through a valve, called the pyloric sphincter. This acidic chyme must be neutralized before it damages the intestinal lining. The pancreas is responsible for secreting the bicarbonate ions which neutralize the acid. A large amount of water is required to produce this bicarbonate solution. If sufficient water is not available, the digestive process may be delayed and food may remain in the stomach longer than necessary. Over a period of time, the stomach acid may rise and if allowed to enter the oesophagus, will produce the sensation known as heartburn. Ideally, water should be drunk half an hour before meals, during meals, and again a couple of hours afterwards.

High blood pressure

High blood pressure, also known as hypertension, is a state of adaptation of the body to a generalized drought - when there's just not enough water to fill all the blood vessels that diffuse water into vital cells. As part of the mechanism of reverse osmosis, when water from



the blood serum is filtered and injected into important cells through minute holes in their membranes, extra pressure is needed for the "injection process". Just as we inject intravenous "water" in hospitals, so the body injects water into tens of trillions of cells all at the same time. Water, with balanced, unrefined salt intake, will often bring high blood pressure back to normal.

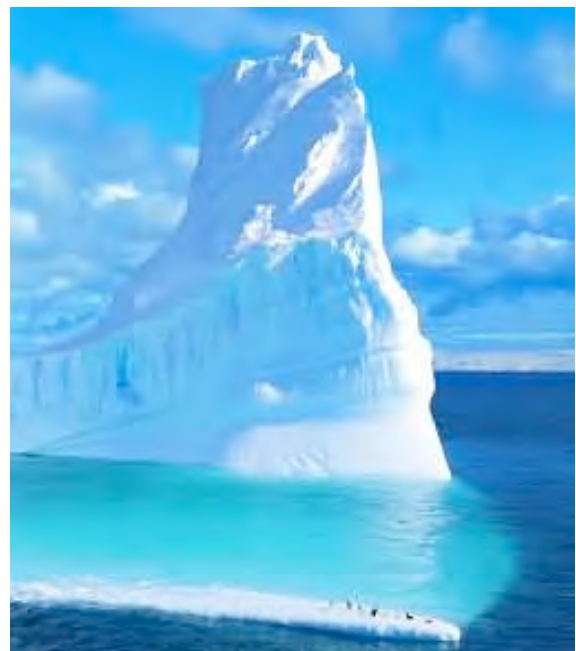
Not recognizing hypertension as one of the major indicators of dehydration in the human body, and treating it with diuretics that further dehydrate the body, will in time cause blockage by cholesterol of the heart arteries and the arteries that go to the brain. It will cause heart attacks and small or massive strokes that paralyze. It will eventually cause kidney disease. It will cause brain damage and may give rise to neurological disorders such as Alzheimer's disease.

Migraines

Migraine headache is a sign of water need by the brain and the eyes. It will totally clear up if dehydration is prevented from becoming established in the body. The type of dehydration that brings on migraines might eventually cause inflammation of the back of the eye and possibly loss of eyesight.

Weight gain and loss

There's another fascinating point about chronic dehydration and weight loss that's worth mentioning here, too: many people who are attempting to lose weight end up in a state of chronic dehydration because they don't want to drink water for fear that it will add "water weight" to their bodies. Consequently, they actually impair their body's ability to metabolize fat because they're afraid to drink enough water on a regular basis. In reality, being fully hydrated is a prerequisite to weight loss. If you want to lose weight, you have



to give your body enough water so that it's no longer in a state of emergency. When the body is in a state of chronic dehydration, it will not let go of fat supplies easily: it wants to hold on to everything it can eat or drink. The only way to convince your body to let go of and start metabolizing body fat is to drink a lot of water - enough water so that your body feels safe in letting go of unneeded calories. Remember: water has zero calories, is low-carb, and has zero grams of fat, so drink up!



It's also interesting to note that many people who go on short term diets and who think they're losing five or ten pounds over a couple of days are really only losing water weight. They haven't lost any body fat at all but they've managed to put themselves in a state of chronic dehydration that will inevitably lead to weight gain once they return to normal habits of eating and drinking.

How does it work?

The foremost authority on the relationship between the consumption of water and states of health or disease in the human body is Dr. F. Batmanghelidj, who has written a number of compelling books including: *The Water Cure*, *Water: for Health, for Healing, for Life: You're Not Sick, You're Thirsty*, and *Your Body's Many Cries for Water*.

As he explains in great detail in his writing, most common diseases (for which there are a variety of names such as asthma, arthritis, hypertension and so on) are really just names given to patterns of symptoms created by the body's drought management system. When the human body begins to get dehydrated, it initiates a drought management system that seeks to conserve water. The symptoms characterized by this drought management effort are given disease names by conventional medicine and then treated with toxic prescription drugs.

Here's a straightforward example: the brain must be kept hydrated at all times. So the body, when it's short of water, will do everything possible to continue supplying

adequate amounts of water to the brain. This involves limiting the loss of water in other areas of the body. As Dr. Batmanghelidj points out, simply breathing causes the loss of a significant quantity of water each and every day, depending on the climate in which you live and your level of physical exercise.

If you're experiencing chronic dehydration from not drinking enough water, or from consuming water-depleting drinks such as coffee, beer or beverages containing sugar, your body tries to prevent respiratory water loss by producing histamines which close off the capillaries in your lungs. Through the constriction of these capillaries, water loss is reduced, but of course breathing is made far more difficult. It's important to understand that the body is doing this on purpose. The body is producing histamines as a strategy, not as a disease or something gone awry. The body wants to constrict the capillaries in your lungs because it's trying to save your brain.

What is conventional medicine's answer to this production of histamines by the body? Well, of course, it's the prescription of antihistamines, drugs that are designed to counteract the histamines produced deliberately by the body in order to conserve water. These antihistamines then open up the capillaries in the lungs, making breathing seem easier. This conventional medical approach treats nothing but the symptoms, and in doing so it combats the body's own intentions and strategies in trying to conserve water. What patients with asthma really need is lots of water on a regular basis, not antihistamine prescription drugs.

As Dr. Batmanghelidj explains, the same sort of destructive cycle of medical treatment occurs with other diseases as well - most notably hypertension and arthritis. Many of the prescription drugs profitably marketed to doctors and patients today are, in effect, various forms of antihistamines, which all counteract the body's efforts to conserve water.

This is an important point: there's no money in the treatment of disease



with water, so there's no motivation for any profit-centered organization to reveal the truth about the role of water in preventing chronic disease in human beings. Why would a pharmaceutical company, doctor or hospital tell you that you can prevent arthritis, asthma, hypertension and other diseases by simply drinking water? They wouldn't, and they don't. Medical schools don't even teach it.

What to Do

What we need to be doing as a population, of course, is simply drinking more water. But there's more to it than just that - we also need to stop consuming drinks that deplete our water supplies. Most beverages drunk by American consumers today actually don't offer hydration at all; soft drinks bring about a loss of water in your body, not a gain in water, because of the sugar content - even if it's in the form of high fructose corn syrup. Once you drink one can of a soft drink beverage, you feel like you still need more, and thus the body is trapped in a never-ending cycle of craving for hydration that simply cannot be met by consuming soft drinks. Why would soft drinks manufacturers sell you a product that causes you to want no more afterwards? The same is true of fruit juices at full strength, especially for small children. What your body truly craves is simple water.

Caffeine is also another water-depleting drug. Consuming caffeine in any form, whether soft drinks, tea, coffee or in over-the-counter stimulant pills, creates a diuretic effect in your body. Sadly, most westerners continue to drink alarming quantities of soft drinks, coffee and other beverages that actually deplete water from their systems.

It's helpful, when drinking water, for most people to add a very small amount of salt to it (see the chapter on Salt) or Apple Cider Vinegar. Either of these will help keep the water in your body and not simply rush to flush it through without benefit. Most people are deficient in electrolytes - the minerals and cell salts that move electrical energy through your body - without knowing it.

As for vinegar, its use in water as a hydrant goes back to ancient times. The Roman army issued its soldiers with a ration of vinegar to take daily for general health, and Roman citizens drank vinegar and water as a thirst quencher. The amount

needed in either case is small: 1/8 teaspoon of salt per liter of water, or a teaspoon of vinegar per liter.

However, years of chronic dehydration can not be reversed overnight by simply drinking a couple of glasses of water, and you shouldn't flood your body with sudden massive amounts of water either. Rather, water intake should be gradually increased. How do you know if you're drinking enough water? Your urine should be clear or lightly colored. Darker colored, orange urine is an indication that your kidneys are working hard to concentrate the urine and that you are actually dehydrated at that time.

Here's a valuable note of advice. Many people used to drinking sparkling (carbonated) water find plain water comparatively unpalatable. Sparkling water is better than none, but it leaches the valuable trace mineral phosphorus from the body and the consumption in sparkling water of quantities of carbon dioxide is not that good for you: it can cause bloating and flatulence - and think of it like this. Carbon dioxide is a poison that the body exhales in each breath. Why should we want to consume it in our drinks? Try plain mineral water for a while - you'll get used to it after a surprisingly short time and thereafter won't want anything else to alleviate your thirst.

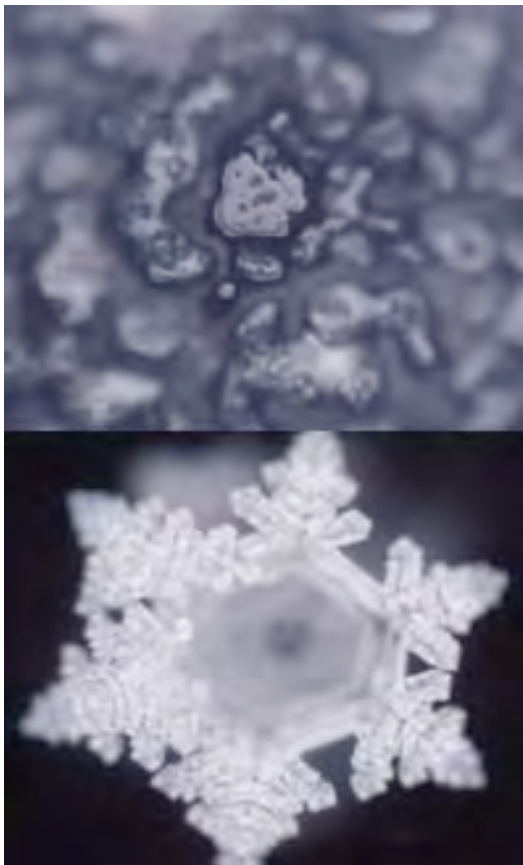
This chapter on the remarkable powers of water cannot be complete without referencing the extraordinary pioneering work of Dr. Masaru Emoto, who published *The Messages of Water* in Japan in 1999. The book became an international bestseller, and a second volume ensued, followed by the similarly bestselling *The Hidden Messages in Water* in 2004.

Dr. Emoto's scientific work began with an interest in homeopathy, and the startling notion that water can copy and store subtle yet detailed information changed his life. (Homeopathic preparations are dilutions of a substance so refined that none of the original molecules remain - yet the water "remembers" the pattern of the substance.) He was curious about this ability, recognizing that homeopathy worked most effectively as a curative, and began studying water crystals (in the form of ice) and the patterns they made when the water was exposed to various substances

and toxins - and even music, words, symbols and emotions. The result was fascinating.

Pure water was exposed to words written on paper and wrapped around the bottle in which the water was put, with the printing facing in. Incredible as it may sound, in repeated experiments words consistently affected the structure of the water. The most beautiful crystals were formed by the words "Love", "Gratitude", and "Thank You." In a number of carefully controlled trials, these were written in many different languages, yet all those phrases pertaining to "Love" bore a striking resemblance to one another; the same was found with other words or phrases, no matter in which language they were translated. The same phenomenon occurred with the spoken word also: children were brought in to the laboratory and were asked to tell the water that it was beautiful. Lovely crystals formed. Conversely, when the water was exposed to aggressive words - "You Fool!" or "I hate you!" - no crystals formed: only a mass of disruption which bears a disturbing resemblance to cancer cells seen under a microscope. The most startling of these was from a Japanese anime cartoon: "You make me sick. I will kill you." Along with the chaotic

disruption could be perceived a tiny figure of a man, holding a gun.



When the water was exposed to music, beautiful crystals were again formed to Beethoven, Mozart, Bach, Chopin and Tchaikovsky. When it was exposed to heavy metal music, however, the result was the same as with "You fool!" When the water was shown a picture of the earth from space, the crystals formed were similar to those of "Thank you" but were slightly deformed - as if to indicate that matters here are out of balance.

Dr. Emoto's work was given a prominent place in the acclaimed and independently produced 2004 film *What the Bleep do We Know?*

Seeing Dr. Emoto's photographs displayed in a subway station when she is late and harried, the anxiety-ridden main character, played by Marlee Matlin, has a transformative experience. "If words can do that to water," the man beside her muses aloud, "imagine what they can do to us?"

Imagine what words can do to us. Words, thoughts, "vibes". We have long heard that thoughts create and words have a much more powerful effect on the psyche than actions, but here at last is physical evidence.

For our bodies, on average, are 70% water. When in utero, they're 99% water. By the time we are born they're 90%. If we live to old age, they're about 50% water. As Dr. Emoto says: "In other words, throughout our lives we exist mostly as water." We've seen here in this book that water is the conduit for all information throughout the body, an electrical conductor. If our emotions, other people's emotions and what we hear in the world can affect physiological processes - as science has found with the relation between stress and heart disease, for instance - why not do what we can to create peace and well-being at a cellular level? We have the power to affect our health and wellness by charging all the water we take into our bodies in a simple and powerful way.

As an experiment, take or make up a bottle of water; either purchased spring water or home filtered water. On a piece of paper, write the words, "Love", "Gratitude", "Thank You" - or whatever positive words you like. Drink some of this water every day for a week and observe the result. I guarantee there will be a difference in the way you feel.

No wonder, then, that throughout the ages, in all cultures, water blessed by priests and shamans, water occurring naturally from springs associated with saints and gods and visions of divine persons has been viewed as holy. Folk wisdom has long recognized the capacity of water to convey blessings, healing and prosperity to us. Now we have scientific proof for our own time.



SIX

CAYENNE



Used widely in hot climates as a condiment, Cayenne (known also in the culinary world as chili or red pepper) is a powerful local stimulant, with no narcotic effects. Cayenne is the greatest herbal aid to circulation and can be used on a regular basis. If you master only one herb in your life, master Cayenne pepper. It's more powerful than any other.

There's no other herb which increases your blood flow faster than Cayenne. Cayenne moves blood. Of the ten most important herbs to have in the home, at the top of the list is Cayenne pepper, because it will make the other nine work better. For this reason it's mentioned before we get to the other herbs in this book.

Medicinal Action and Uses

Cayenne is used worldwide to treat a variety of health conditions, including poor circulation, weak digestion, heart disease, chronic pain, sore throats, headaches and toothache.

When taken internally, Cayenne soothes the digestive tract and stimulates the flow of stomach secretions and saliva. These secretions contain substances which help digest food.



Cayenne is the greatest blood circulation stimulant known. You can take all the milk thistle you want, but if you have bad circulation to your liver, it's not going to do you any good. Cayenne increases your blood circulation immediately - within seconds - and to a greater extent than any other herb.

When you have a sick area in the body, there's often a restriction of blood flow to that area. Blood flow is what takes nutrition and the healing properties of herbs to those cells. Blood flow is also what carries out and removes waste material.

Cayenne pepper is like explosive. It blasts through all that blockage to get to the area which is sick, taking with it all the minerals and vitamins from the foods you eat, and all the vital chemicals from the herbs you take - all the way to the sick area.



People who aren't used to Cayenne need to work their way up. Don't overdo it at first! For those who've never used Cayenne pepper before, a good initial dosage is 1/16th of a teaspoonful. Work your dosage up slowly. Put a small amount in some juice, stir it in thoroughly and drink.



It's recommended that Cayenne powder be used, as opposed to capsules. Many herbalists believe that you're only getting a small part of the potential value of Cayenne pepper by taking it in capsule form. When you put Cayenne powder in your mouth, your stomach secretes digestive juices before the Cayenne gets down there. So when the Cayenne arrives, your stomach is ready for it.

But if you swallow a capsule, your tongue tastes nothing. A capsule goes down into your stomach, and your stomach notices nothing - at first. Then, five minutes later the gelatin bursts, you have a half-teaspoon of Cayenne pepper in your stomach, and your body is shocked. You took it by surprise.

What's going on here is that some of Cayenne's healing action occurs right in your mouth. As Cayenne touches your tongue, the Cayenne starts to be absorbed in seconds and your nerve endings transmit signals throughout the body - sending waves of fresh blood wherever it's needed.

Cayenne may be taken at a dosage of 0.5 to 1.0 g three times daily, before meals.

History and Lore

Cayenne has been known since the beginning of civilization in the Western Hemisphere, having been a part of the local diet since about 7,500 B.C. The Spanish discovered the pods in the New World and brought them back to Europe. Before the arrival of the Spaniards, the indigenous peoples throughout Central and South America used Cayenne medicinally: the Mayans used it to treat asthma, coughs, and sore throats, while the Aztecs used it to relieve toothache.

Ayurveda utilizes Cayenne to treat poor digestion and bloating, and Traditional Chinese Medicine uses Cayenne for digestive ailments. A preparation in use in the West Indies called Mandram, for weak digestion and loss of appetite, is made of thinly sliced and unskinned cucumbers, shallots, chives, or onions, lemon or lime juice, Madeira, and a few pods of Cayenne well mashed up in the liquids.



Cayenne adopts its name directly from that of the port capital of French Guiana, while capsicum - the botanical name of the plant - is so called after the Latin *capsa*, meaning a container. Cayenne was introduced into Britain in 1548, and John Gerard, in his 1633 *Herball or General Historie of Plantes*, mentioned it as being cultivated in his time.

How does it work?

The constituents of Cayenne are vitamins E, vitamin C, carotenoids, and a chemical called capsaicin, which gives Cayenne its medicinal properties. Capsaicin is also the

ingredient that gives peppers their "heat": the hotter the pepper, the more capsaicin it contains.

In addition to adding heat to the pepper, capsaicin acts both to reduce platelet stickiness and to alleviate pain. Its mode of action in pain relief is thought to be from nerve endings releasing a neurotransmitter called Substance P. Substance P informs the brain that something painful is occurring. Capsaicin causes an increase in the amount of substance P released. Eventually, the Substance P is depleted and further releases from the nerve ending are reduced.

Creams containing capsaicin have reduced pain associated with post-operative pain for mastectomy patients and for amputees suffering from phantom limb pain. Prolonged use of the cream has also been found to help reduce the itching of dialysis patients, the pain from shingles, and cluster headaches. Further research has indicated that capsaicin cream reduces pain associated with arthritis. The repeated use of the cream apparently counters the production of Substance P in the joint, hence less pain. Reducing Substance P also helps by reducing long-term inflammation, which can cause cartilage break down.



SEVEN

GARLIC



Garlic has been known since ancient times to work highly effectively against a wide range of infections and other complaints. Its pungent odor is unmistakable - not to everyone's liking! - and Garlic is widely used in the traditional cuisine of many cultures. The name is of Anglo-Saxon origin, being derived from *gar* (a spear) and *lac* (a plant), in reference to the shape of its leaves.

What can it do for us?

Many marvelous effects and healing powers have been ascribed to Garlic. It lowers cholesterol levels, gives relief from rheumatism, prevents blood clots, boosts the immune system, and protects against heart disease and strokes. As an antiseptic, its use has long been recognized. In World War I it was widely employed in the control and treatment of infected wounds. The raw juice was squeezed or pressed, diluted with water, put on swabs of sterilized sphagnum moss, and then applied to the wound; thousands of lives were saved by its use.

It can be applied externally as an ointment or lotion, as an antiseptic, and as a poultice for infected sores. Garlic has been said to prevent anthrax in cattle.

Syrup of Garlic works well for asthma, hoarseness, coughs, breathing difficulties, and most other lung disorders - in particular chronic bronchitis, on account of its ability to promote expectoration. Syrup of Garlic is made by pouring a quart of boiling hot water over a pound of the fresh root cut into slices, and allowing it to stand in a closed vessel for twelve hours. Honey is then added to make it the consistency of syrup. Apple Cider Vinegar also improves this syrup as a medicine. A

little caraway and sweet fennel seed, bruised and boiled for a short time in the ACV before being added to the Garlic, will mask the pungent smell.

A remedy for asthma, very popular in days of yore, is a syrup of Garlic made by boiling the bulbs till soft, adding an equal quantity of vinegar to the water in which they were boiled, and then boiling this down to a syrup with added honey. The boiled bulbs are allowed to dry, and the syrup is then poured over them. The resulting syrup (with bulbs) is kept in a sealed jar. Each morning a bulb or two is taken, along with a spoonful of the syrup.

A syrup of Garlic made simply by melting 1.5 oz. of honey in 1 oz. of the raw squeezed juice can be given to children with a bad cough. Successful treatment of tuberculosis with Garlic has been recorded, the freshly squeezed juice, diluted with equal quantities of water, being inhaled antiseptically. Bruised and mixed with lard, Garlic has been reported to relieve whooping cough if rubbed on the chest and between the shoulderblades. Traditionally, an infusion of the bruised bulbs, given before and after every meal, was considered to relieve epilepsy. A clove or two of Garlic, pounded with honey and taken two or three nights successively, has been reported to relieve rheumatism. Garlic also helps with chronic oedema, removing the water which may already have collected and preventing its future accumulation. If given like smelling salts, Garlic will usually revive someone who is hysterical. It's reported that Garlic makes the eye retina more sensitive and less able to bear strong light. Both Garlic juice and Garlic milk (made by boiling the mashed bulbs in milk) can be used to eliminate worms. A slice of fresh Garlic taped to a veruca on the sole of the foot will often completely eliminate the problem.

If small quantities of Garlic are finely chopped and added daily to chickenfeed, it prevents gapes (a malady known to every chicken farmer). Chickens will lay higher quality eggs if they're fed Garlic in their food before they start laying. (However,



when they start to lay, the Garlic should be stopped - otherwise the eggs become interestingly Garlic-flavored!)

History and Lore

Garlic is of such antiquity as a cultivated plant that it's difficult to trace the country of its origin with any certainty. De Candolle, in his treatise on the *Origin of Cultivated Plants*, considered that it was apparently indigenous to the southwest of Siberia, whence it spread to southern Europe, where it has become naturalized. Garlic is widely cultivated - and consumed - in the Latin countries bordering on the Mediterranean. The French writer Alexander Dumas described the air of Provence as being "particularly perfumed by the refined essence of this mystically attractive bulb"!

From the earliest times, in fact, Garlic has been used in cooking. Theophrastus relates that Garlic was placed by the ancient Greeks on the piles of stones at crossroads as a supper for Hecate, and according to Pliny Garlic and onion were invoked as deities by the Egyptians at the taking of oaths.

It was largely consumed by the ancient Greeks and Romans, as we can read in Virgil's *Eclogues*. Horace, however, records his "detestation" of Garlic, the smell of which, even in his days (as much later in Shakespeare's time), was regarded as a sign of vulgarity. He calls it "more poisonous than hemlock", and tells how he was made ill by eating it at the table of Maecenas. Among the ancient Greeks, those



who partook of it were not allowed to enter the temples of Cybele. Homer, however, tells us that it was to the virtues of the "Yellow Garlic" that Ulysses owed his escape from being changed by Circe into a pig, like each of his companions. Homer also makes Garlic part of the entertainment which Nestor served up to his guest Machaon.

There's a Mohammedan legend that "when Satan stepped out from the Garden of Eden after the fall of man, Garlick sprang up from the spot where he placed his left foot, and Onion from that where his right foot touched." There's also an interesting superstition in some parts of Europe that if a clove is chewed by a athlete running a race, it'll prevent their competitors from overtaking them. Similarly, Hungarian jockeys sometimes used to fasten a clove of Garlic to the bits of their horses in the belief that any others running close behind would fall back the instant they smelled the pungent odor.



Many of the old writers praise Garlic as a medicine, though some, including Gerard, are skeptical as to its powers. Pliny states a long list of complaints in which it was considered beneficial, and Galen eulogizes it as the rustics' *theriac*, or "heal-all". One of its older popular names was "Poor Man's Treacle", and we find this reference to theriac in Chaucer and many old writers.

Alexander Neckam, a writer in the 12th Century, recommends it as a palliative for "the heat of the sun in field labor", and a book of travel, written by Mountstuart Elphinstone nearly 200 years ago, states that "the people in places where the Simoon [a hot sand-laden wind] is frequent eat Garlic and rub their lips and noses with it when they go out in the heat of the summer to prevent their suffering from the Simoon."

Garlic is mentioned in several Old English vocabularies of plants from the 10th to the 15th Centuries, and is described by the herbalists of the 16th Century from William Turner (1548) onwards. Garlic is stated to have been grown in England before the year 1540. In Cole's *Art of Simpling* we are told that cocks which have been fed on Garlic are "most stout to fight, and fifty are horses": and that if a garden is infested with moles, Garlic (or leeks) will make them "leap out of the ground presently".

In olden days, Garlic was employed as a specific for leprosy. It was also believed that it was a cure for smallpox, if cut in small pieces and applied to the soles of the feet in a linen cloth, renewed daily.

It formed the principal ingredient in "Four Thieves' Vinegar", used successfully at Marseilles for protection against the plague when it arrived there in 1722. This originated, it's said, with four thieves who confessed that while protected by the liberal use of aromatic Garlic vinegar during the plague, they plundered the dead bodies of its victims in complete safety.

It was reported that during an outbreak of infectious fever in poor quarters of London, early in the 19th Century, the French priests who constantly used Garlic in all their dishes visited the worst cases with impunity - while the English clergy caught the infection and in many instances fell victims to the disease.

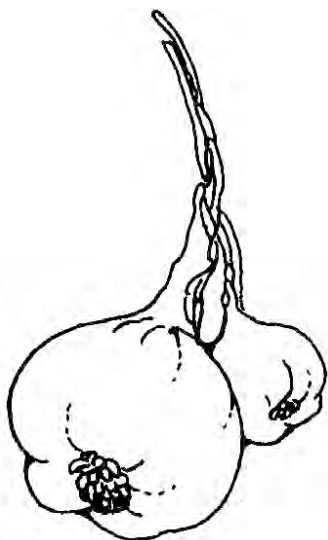
The use of Garlic as an antiseptic was in great demand during World War I. In 1916 the U.K. Government asked for tons of the bulbs, offering a shilling a pound for as much as could be produced. As each pound generally represents about twenty bulbs, and 5 lbs. divided up into cloves and planted will yield about 38 lbs. at the end of the growing season, Garlic was a remunerative crop.

The following appeared in the *Morning Post* of December 12, 1922:

A Dog's Recovery

Mr. W. H. Butlin, Tiptree, records the following experience: A fox-terrier, aged 14 years, appeared to be developing rapidly a pitiable condition, with a swollen neck and an ugly intractable sore at the root of the tail, and dull, coarse coat shedding abundantly. I administered Yadil* Antiseptic in his drinking water and in less than a month the dog became perfectly sound and well, a *mirabile dictu*, his coat became firm, soft, and glossy.

* Yadil is a patent medicine said to contain Garlic.



Mrs. Beeton (in an old edition of her *Household Management*, 1866) gives the following recipe for making "Bengal Mango Chutney", which she states was given "by a native to an English lady who had long been a resident in India, and who since her return to England had become quite celebrated amongst her friends for the excellence of this Eastern relish."

"Ingredients. 1 1/2 lbs. moist sugar, 3/4 lb. salt, 1/4 lb. Garlic, 1/4 lb. onions, 3/4 lb. powdered Ginger, 1/4 lb. dried chilies, 3/4 lb. dried mustard-seed, 3/4 lb. stoned raisins, 2 bottles of best vinegar, 30 large, unripe, sour apples, half a dozen slightly underripe mangoes.

"The sugar must be made into syrup; the Garlic, onions and Ginger be finely pounded in a mortar; the mustard-seed be washed in cold vinegar and dried in the sun; the apples and mangoes be peeled, cored and sliced, and boiled in a bottle and a half of the vinegar. When all this is done, and the apples are quite cold, put them into a large pan and gradually mix the whole of the rest of the ingredients, including the remaining half-bottle of vinegar. It must be well stirred until the whole is thoroughly blended, and then put into bottles for use. Tie a piece of wet bladder over the mouths of the bottles, after which they are well corked. This chutney is very superior to any which can be bought, and one trial will prove it to be delicious."

How does it work?

Although only the cultivated Common Garlic, a member of the same group of plants as the onion, is utilized medicinally, all of the other species have similar properties to a greater or less degree.

The active properties of Garlic come from a pungent, volatile, essential oil called allicin. This oil is responsible for Garlic's distinctive penetrating odor (and, presumably, the Garlic plant uses allicin as a form of protection from pests and parasites). The odor is so diffusive, in fact, that even when crushed Garlic is rubbed into the soles of the feet, its odor is exhaled by the lungs. This is a simple experiment you can do yourself with the helpful feedback of a good friend! Allicin

is created when Garlic cloves are cut into or crushed. The cutting or crushing causes two components of Garlic, alliin and the enzyme alliinase, to interact.

A typical dosage of Garlic is 900 mg daily of a Garlic powder extract standardized to contain 1.3% alliin, providing about 12,000 mcg of alliin daily. However, a great deal of controversy exists over the proper dosage and form of Garlic. Practically everyone agrees that one or two raw Garlic cloves per day are adequate for most purposes, but virtual trade wars have taken place over the potency and effectiveness of various dried, aged, or deodorized Garlic preparations. The problem has to do with the way Garlic is naturally constructed, described above.

When you powder Garlic to put it in a capsule, it acts like cutting the bulb. The chain reaction starts: alliin contacts allinase, yielding allicin, which then breaks down. Unless something is done to prevent this process, Garlic powder won't have any alliin or allicin left by the time you buy it.

Some Garlic producers declare that alliin and allicin have nothing to do with Garlic's effectiveness and simply sell products without it. This is particularly true of aged powdered Garlic and Garlic oil. But others feel certain that allicin is absolutely essential. However, in order to make Garlic relatively odorless, they must prevent the alliin from turning into allicin until the product is consumed. To accomplish this feat, they engage in marvelously complex manufacturing processes, each unique and proprietary. How well each of these methods work is a matter of finger-pointing controversy.

The best that can be said at this point is that in most of the clinical studies of Garlic, the daily dosage supplied at least 10 mg of alliin. This is sometimes stated in terms of how much allicin will be created from that alliin. The number you should look for is 4 to 5 mg of "allicin potential".

The first serious published evidence for Garlic's medicinal action was produced by Schmidt and Marquardt in 1936 when they demonstrated the extraordinary fungistatic and fungicidal action of freshly pressed Garlic juice and dried Garlic against the fungus that causes athlete's foot. Later, American and Russian authors reported similar findings almost simultaneously, and since then numerous studies

have appeared which demonstrate the inhibition of fungal growth by Garlic and/or its constituents, mainly allicin.

New research shows that taking Garlic during pregnancy can cut the risk of pre-eclampsia (raised blood pressure and protein retained in the urine). Studies reveal that Garlic may help to boost the birth weight of babies destined to be dangerously small; this research was carried out by Dr. D. Sooranna, Ms. J. Hirani



and Dr. I. Das in the Academic Department of Obstetrics & Gynecology at the Chelsea & Westminster Hospital in London.

They concluded that although pre-eclampsia and growth retardation are complex multifactorial conditions, taking standardized Garlic tablets throughout pregnancy may decrease the chances of these types of complications at birth. They focused on growth retarded babies and pre-eclampsia, a potentially dangerous condition for mother and baby which occurs in about one in ten pregnancies. Experiments by the research team showed that adding extracts of Garlic to cells from the placenta of women likely to suffer from these conditions was able to stimulate growth quickly. Furthermore, the activity of key enzymes that are reduced in the abnormal pregnancies were significantly increased when Garlic was added.

Recently the American Society for Microbiology's *Antimicrobial Agents and Chemotherapy* has confirmed the chemotherapeutic effects of Garlic. The researchers were able to study how Garlic works at the molecular level using allicin. It explained how allicin fights infection, supporting the notion that Garlic is an excellent, though smelly, natural antimicrobial drug that can disable an unusually wide variety of infectious organisms. It revealed that allicin disables dysentery-causing amoebas by blocking two groups of enzymes, cysteine proteinases and alcohol dehydrogenases.

Cysteine proteinase enzymes are among the main culprits in infection, providing infectious organisms with the means to damage and invade tissues. Alcohol dehydrogenase enzymes play a major role in these harmful organisms' metabolism

and survival. Because these groups of enzymes are found in a wide variety of infectious organisms such as bacteria, fungi and viruses, this research provides scientific evidence that allicin is a broad-spectrum antimicrobial, capable of warding off different types of infections. "It has long been argued that garlic can fight a wide range of infections and now we have provided biochemical evidence for this claim," the report states.

The second study, reported in *Biochimica Biophysica Acta*, helps to clarify the role allicin plays in preventing heart disease and other disorders. In the studies, the scientists revealed and characterized a molecular mechanism by which allicin blocks certain groups of enzymes. Allicin, created when Garlic cloves are crushed, protects the plant from soil parasites and fungi.



The role of allicin in warding off infection may be particularly valuable in light of the growing bacterial resistance to antibiotics. It's unlikely that bacteria would develop resistance to allicin because this would require modifying the very enzymes that make their activity possible.

Scientists found that allicin blocks the enzymes by reacting with one of their important components known as sulfhydryl (SH) groups, or thiols. This finding has important implications because sulfhydryl groups are also crucial components of some enzymes that participate in the synthesis of cholesterol. By reacting with and modifying the sulfhydryl groups in those enzymes, allicin may prevent the production of artery clogging cholesterol. "It has been suggested that garlic lowers the levels of harmful cholesterol, and our study provides a possible explanation for how this may occur," the authors write. "However, more research is necessary to establish what role allicin might play in preventing the clogging up of arteries."

Complicating the issue is the concern blocking sulfhydryl groups in proteins may sometimes be harmful because these groups are also present in enzymes involved in some of the body's vital processes. However, unlike most bacteria, human tissue cells contain detoxifying molecules of a substance called glutathione, which helps

maintain appropriate sulfhydryl levels. These glutathione molecules can reverse the anti-sulfhydryl effects of small amounts of allicin.

While reaction with sulfhydryl groups appears to explain most of allicin's activity, it has also been suggested allicin acts as an antioxidant. The study reported in *Biochimica Biophysica Acta* confirmed this antioxidant effect and for the first time provided its quantitative assessment. Antioxidants gobble up harmful free radicals believed to contribute to tumor growth, atherosclerosis, aging and other processes.

The antibiotic properties of Garlic have earned it the popular name "nature's antibiotic". This amazing plant can provide a whole arsenal of activity against fungi, yeasts and viral infections. The antifungal properties of Garlic have long been used in folk medicine for the treatment of Candida infections, especially those of the skin.

Further evidence that allicin is responsible for the anticandidal activity of Garlic has been demonstrated in a study where pure allicin was found to be highly active - with a minimum inhibitory concentration (MIC) of only 7 $\mu\text{g}/\text{ml}$. The study also showed that several varieties of onion had much less anticandidal and antibacterial activity than Garlic.

Growth and respiration are also inhibited by Garlic juice in *Candida albicans*, *Trichophyton cerebriforme*, and *T. granulosum*. At a dilution of 1:1000, Garlic juice had no harmful effect on tissue cultures, such as chicken embryos or kidney cells; however, it completely inhibited the growth of yeast.

Scientists in Argentina, Italy, Switzerland, Japan, and North America have all done studies confirming that one of Garlic's constituents, diallyl sulphide, inhibits the formation of cancer-causing cells. Unfortunately, Garlic is not yet commonly accepted as an effective treatment for cancer, even though it's been proven to prevent the growth of many different cancers including those of the breast, colon, prostate, stomach, and lungs.

A recent study revealed that the risk of prostate cancer was 44% lower in those using Garlic more than once per week. In China persons with the highest intake of Garlic had a risk of stomach cancer that was 40% lower than that of those with the lowest intake. In an Iowa Woman's Health Study the highest consumption of Garlic was associated with a 32% reduced risk of colon cancer.

Garlic can stimulate the production of glutathione, an amino acid which is known to be a very potent antioxidant and de-toxifier and the smooth muscle relaxant - adenosine - also found in Garlic, will lower blood pressure.

Within Garlic and its oils lies a multitude of nutrients. Garlic is rich in protein, as well as Vitamins A, B1, and C. There are many essential minerals found in Garlic including: calcium, magnesium, potassium, phosphorous, iron, copper, zinc, selenium, chloride, germanium, and sulfur compounds. Within this beneficial herb there are seventeen amino acids, including the eight manufactured by the human body. Eat some today!



EIGHT GINGER



Native to southeast Asia, Ginger was brought to Spain, and then America, by the Spanish in the 15th and 16th centuries. Spanish-Americans cultivated it vigorously, so that in 1547 they exported over a thousand tons of Ginger to Europe. It's now commercially cultivated in tropical regions of the United States, India, China, and the West Indies. The plant is a creeping perennial that spreads underground. Only the root is medicinal.

What can it do for us?

Although Ginger is widely recognized as an effective remedy for appetite loss, indigestion and motion sickness, Ginger also has a proven ability to combat all forms of nausea and vomiting. By increasing the production of digestive fluids and saliva, Ginger helps relieve indigestion, gas pains, diarrhea and stomach cramping. and is used to treat nausea related to both motion sickness and morning sickness. Many women claim Ginger tea helps rid them of menstrual cramps.

Ginger is used as a digestive aid to reduce stomach irritation by absorbing and, in some cases, neutralizing stomach acids. Ginger also soothes irritated intestinal walls and assists in moving food through the digestive tract. The herb increases both the production and secretion of bile in the liver and gall bladder, which helps maintain the digestion of fats. This process aids in lowering cholesterol levels.

Research has indicated that daily doses of Ginger may decrease the blockage in clogged arteries. Some studies have found that Ginger strengthens the cardiac muscle, but more research is required to determine its clinical significance.

Ginger's anti-inflammatory properties help relieve pain and reduce inflammation associated with arthritis, rheumatism and muscle spasms. Ginger's therapeutic properties effectively stimulate circulation of the blood, removing toxins from the body, cleansing the bowels and kidneys, and nourishing the skin. Other uses for Ginger include the treatment of asthma, bronchitis and other respiratory problems by loosening and expelling phlegm from the lungs. Ginger may also be used to help break fevers by warming the body and increasing perspiration. Asian medicine employs it as a treatment for colds and shortness of breath.

If you have athlete's foot, cool some Ginger tea and soak your feet in it. Its anti-fungal property will ease the burn and itch. Ginger tea is also said to reduce excessive perspiration, act as an aphrodisiac, and freshen one's breath. Not bad for the stem of a plant that grows underground!

As a mood enhancer, ginger's cineol content may help contribute to stress relief. So sipping a cup of ginger tea after a hard day at the office might be just what the doctor ordered.

Dosage

Indigestion: 2 to 4 g a day.

Motion sickness: 1 g 30 minutes before travel; for continuing symptoms, 0.5 to 1 g every 4 hours.

To prevent vomiting: 0.5 to 2 g daily.

Arthritis: 1 to 2 g daily.

Chopped Ginger root can be made into a tea. Pour boiling water over 0.5 to 1 g (about one-quarter teaspoonful) of the chopped root, steep for five minutes, and strain.





History and Lore

Originating in India and China, Chinese ships carried pots of Ginger on board long sea voyages to prevent scurvy and sea sickness, and a Chinese folk remedy recommends rubbing the cut root of the plant on the scalp to stop hair loss. Ginger has been used for centuries in Chinese herbal medicine for the positive effects it has on the body, as well as to enhance herbal combinations. Meanwhile, in India, before religious festivals, devotees would avoid Garlic, so as not to offend the deities. Instead, they consumed Ginger, which left them fragrant and pleasing. Ginger is considered the "Universal Medicine" by India's Ayurvedic herbalists. Ginger ale and ginger beer have been recommended as "stomach settlers" for generations in countries where the beverages are made. Ginger water was commonly used to avoid heat cramps in the United States in the past.

Ginger has been used around the world to reduce fever, to relieve ulcers, as an anti-nauseate, as a carrier herb (enhancing absorption of other herbs), to treat colon and stomach spasms, to relieve constipation, to ease gas or flatulence, to nourish the skin, to regulate menstrual cycle (in China), to ease menstrual cramps (in the West), and to treat first- and second-degree burns (applied externally)

How does it work?

In recent clinical trials, Ginger proved more effective than the prescription drug Reglan in preventing post-operative nausea and vomiting, and was found to be more effective than Dramamine in curbing motion sickness - without causing drowsiness. Ginger has been shown to stimulate the intestines and promote production of saliva, digestive juices, and bile, and also tends to boost the pumping action of the heart, prevent the formation of clots, reduce cholesterol levels, and fight inflammation. It may even have a stimulating effect on the immune system.



Volatile oils called gingerols are responsible for *Ginger's* medicinal value, having anti-inflammatory, analgesic, sedative, antipyretic, antibacterial, and GI tract motility effects - and are thought to inhibit certain cancers. The other known constituents of *Ginger* include zingibain, bisabolene, oleoresins, starch, essential oils (zingiberene, zingiberole, camphene, cineol, borneol), mucilage, and protein.

Ginger boosts the effects of antioxidants, and, at the same time, contains many antioxidants itself. *Ginger's* antioxidant properties help fight the common cold. *Ginger* has a high content of sesquiterpenes, which contribute to the body's defense against the rhinoviruses responsible for colds and sinus congestion. *Ginger* doesn't actually cure the common cold, but it can help decrease the severity of the symptoms. *Ginger* is also used as an anti-inflammatory agent to treat migraine headaches and rheumatoid arthritis.



NINE

OREGANO



The name Oregano derives from the Greek words *oros*, for "mountain", and *ganos*, for "joy" or "splendor"; not only is Oregano a beautiful plant, but the mountainsides on which it grew were considered much more beautiful by its presence. This aromatic herb is a perennial that grows wild in the mountains in areas free of pollution and flourishes in late summer in warm, sunny fields. Oregano is usually thought of as a culinary herb, but its medicinal properties have been understood and used for

thousands of years. But beware: the related herbs thyme and marjoram sold in most North American supermarkets are often mislabeled as Oregano and do not possess wild Oregano's miraculous healing properties!

What can it do for us?

Oregano is one of the world's finest natural medicines, its power lying in the oil found in its leaves.

Try a tea made with Oregano for loss of appetite, nervousness, indigestion, bloating, flatulence, coughs, urinary problems, bronchial problems, headaches, swollen glands, and to promote menstruation. It has also been used in the past to relieve fevers, diarrhea, vomiting, and jaundice. Unsweetened Oregano tea can be used as a gargle or mouthwash. Alternatively, the leaves can be dried, pulverized, and made into capsule form for when it's inconvenient to make a tea.

Oil of Oregano helps in the reduction of tooth pain. In fact, when poured into the cavity of the tooth, it acts as an analgesic. Oil of Oregano is also a powerful

fungicide and can be used to treat fungus and yeast infections, especially systemic, chronic, or recurrent fungus infection and yeast infection caused by *Candida albicans* intestinal yeast overgrowth (Candidiasis). Oregano can also help alleviate intestinal disorders commonly associated with Candidiasis including Chronic Fatigue Syndrome (CFS), fibromyalgia, Irritable Bowel Syndrome (IBS), leaky gut syndrome, and a number of intestinal parasite and bacterial infections.



Historically, oil of Oregano superseded anti-inflammatory drugs in reversing pain and inflammation and is nearly as powerful as morphine as a painkiller. Externally, Oregano leaves can be pounded into a paste: add small amounts of hot water or tea to reach the desired consistency (oatmeal may also be added to thicken it if needed). This paste can then be used to relieve pain from rheumatism, swelling, itching, aching muscles, and sores. Oil of Oregano can also provide immediate help for bee stings and venomous bites until medical attention can be reached. For tired joints and muscles, put a handful of Oregano leaves in a coffee filter, mesh bag, or cheesecloth bag and run steaming bath water over it. Allow it to steep in the tub with you as you relax in the warm, fragrant water. Oil of Oregano has even been suggested as a treatment for dandruff, diaper rash, and other skin disorders.

Oregano has been said to be helpful in cases of:

- ✓ Digestion, parasites, depression, flu, constipation, rashes, brain fog, lung fungus, toe and fingernail fungus, head lice, aching joints and muscles, warts, athlete's foot
- ✓ Eczema, flu, headaches, toothaches, ear infection, fevers, allergies, burns, bleeding, fatigue, arthritis, sprains, back pain, colds
- ✓ Lyme disease, canker sores, gastrointestinal / colitis / diarrhea, *E. coli* - and try it for what ever else bothers you. All of Oregano's attributes have yet to be fully explored.
- ✓ When sprayed, Oregano cleans the air, kills fleas, and kills bugs on plants.

History and Lore

Oregano was used for the first time by the Ancient Greeks, the sweet, spicy scent of Oregano having reputedly been created by the goddess Aphrodite as a symbol of joy. The Greeks believed that Oregano had cathartic properties: bridal couples were crowned with garlands of Oregano as a symbol of happiness, and it was placed on tombs to give peace to departed spirits. On the other hand, Oregano's power to heal was known to the Greeks, who used Oregano for medicinal purposes. During this period the Greeks began to employ Oregano for the first time in culinary dishes, and a little later the Romans started to use Oregano for the same purposes.

Oregano has been used for a number of medicinal purposes throughout the centuries. The ancient Greeks were among the first to take advantage of Oregano's curative qualities, and used it to make compresses from the leaves to treat sores and aching muscles, and to treat poisonous insect bites, coughs and digestive problems; meanwhile, the Chinese used it to relieve fever.

A comprehensive description of Oregano and its uses can be found in the book *De Historia Plantarum* of Theophrastus (3rd Century B.C.), the "Father of Botany", and in the *De Materia Medica* of Dioscorides (1st Century B.C.), a renowned physician and pharmacologist of his times. Prior to both of these, Hippocrates used Oregano for curing various ailments such as stomach pain and respiratory diseases. Paracelsus recommended Oregano in the 16th Century for the medication of diarrhea, psoriasis and fungal infections.

Oregano has been cultivated in France since the Middle Ages and came to be an important herb in Mediterranean cooking. Although Oregano is recognized today by every lover of pizza, it was hardly known in the United States until the early 20th Century when GIs returning from Italy brought word of this fragrant and delicious herb back home after the war.

How does it work?

Oregano contains several constituents, including volatile oil (up to 3%), such as carvacrol thymol, and borneol, plus flavonoids, rosmarinic acid, triterpenoids (e.g. ursolic and oleanolic acid), sterols, vitamin A, vitamin C and niacin. It's the carvacrol and thymol (which are thought to work synergistically) that are responsible for Oregano's antimicrobial and antifungal effects. Research has shown that oil of Oregano, and carvacrol in particular, inhibits the growth of *Candida Albicans* far more effectively than calcium magnesium caprylate, a well-known and commonly used antifungal agent.

Oil of Oregano also contains powerful antioxidants, in particular labiatic and p-



hydroxy-hydrocaffeic acid, and is rich in a long list of minerals that includes calcium, magnesium, zinc, iron, potassium, copper, boron, and manganese, together with vitamins A, C and omega-3 fatty acids. In laboratory studies, Oregano has demonstrated stronger anti-oxidant capacity than either of the two synthetic anti-oxidants commonly added to processed food - BHT

(butylated hydroxytoluene) and BHA (butylated hydroxyanisole). On a weight for weight basis, Oregano has 42 times more antioxidant activity than apples, 30 times more than potatoes, 12 times more than oranges and 4 times more than blueberries.

In addition to its anti-fungal action, and according to the results of another test tube study from Australia, oil of Oregano has a strong anti-microbial action against a wide number of bacteria including *E. coli*, *Klebsiella pneumoniae*, *Salmonella enterica*, and *Staphylococcus aureus*. Other test tube studies have shown that oil of Oregano is more effective than the prescription medication Tinidazol in inhibiting the parasite *Giardia* (*Giardia lamblia*).

In a further study, volatile oils of Oregano, thyme, cinnamon, and cumin were each able to stop the growth of another food-borne pathogen called *Aspergillus parasiticus*. Higher concentrations of these volatile oils were also able to stop the production of a potent poison from *Aspergillus* called aflatoxin. This research all confirms that the volatile oils found in Oregano operate as one of nature's finest preservatives, and have an important role in preventing the spoilage of food and in reducing the risk of ingesting harmful bacteria, fungi, and parasites.



TEN TURMERIC



Although best known as a spice that gives a distinctive flavor and yellow color to curry powder and mustard, Turmeric (*Curcuma longa*) is a member of the ginger family and has long been used for healing..

What can it do for us?

Turmeric is seldom used in medicine in the west except as a coloring, However, over the last few years there has been increasing interest in Turmeric and its medicinal properties, and there have been large numbers of scientific studies published.

Turmeric has long been used in both Ayurvedic and Chinese medicine as an anti-inflammatory, to treat digestive disorders and liver problems, and for the treatment of skin diseases and wound healing. The active ingredient in Turmeric is curcumin, which has been the subject of numerous animal studies - but as of yet, very few studies on people - demonstrating various medicinal properties. Curcumin has been shown, for example, to stimulate the production of bile and to facilitate the emptying of the gallbladder. It's also demonstrated in animals a protective effect on the liver, anti-tumor action, and ability to reduce inflammation and fight certain kinds of infection. Because of the centuries-old claim that Turmeric reduces inflammation (backed up by recent scientific findings: see below), Turmeric may be very well worth a try to help relieve symptoms of arthritis.

History and Lore

Ayurveda, Siddha, Unani, and other traditional medicine systems practiced in India have relied on this pungent spice for centuries, and there Turmeric has been used

for generations to treat indigestion, inflammation, and a host of other ailments including fever, wounds, infections, dysentery, arthritis, jaundice and other liver problems. Following the lead of their near neighbors, the Chinese adopted Turmeric and used it in similar fashion.

How does it work?

One secret of Turmeric's medicinal power is the many antioxidants it contains. You'll recognize some of the more common ones, such as vitamins C and E, along with several carotenoids. It also contains lesser-known, but more effective



antioxidants - specifically, curcumin and related compounds called curcuminoids. Antioxidants are also powerful preservatives, which helps explain why Turmeric has long been sprinkled on food to help retain its freshness.

Recently, substances called cyclo-oxygenase inhibitors have won praise as powerful miracle aspirins for blocking inflammation, especially inflammation caused by arthritis and gout, and may be of help in inflammatory ailments of the hand and wrist such as carpal tunnel syndrome. Turmeric, like its cousin Ginger, contains some natural cyclo-oxygenase inhibitors. Some studies compare it to Ibuprofen. Research suggests it works almost as well and with none of the side effects.

In India, curcumin is considered a standard anti-inflammatory medication. It appears to be most effective for acute (as opposed to chronic) inflammation. Many sources recommend curcumin for arthritis-related inflammation and pain, but the evidence showing its effectiveness for arthritis is unclear. In a 1980 study published in India, rheumatoid arthritis patients who took 1,200 mg of curcumin a day experienced the same reduction in stiffness and joint swelling as those who took the prescription anti-inflammatory drug phenylbutazone, which can have unpleasant side effects.

In fact, studies also suggest that Turmeric can stop inflammation about half as well as a corticosteroid called cortisone. Corticosteroid medications are considered the "gold standard" for stopping inflammation. The problem with these drugs is that their potential side effects, such as fluid retention, high blood pressure, and bone damage, are nearly as impressive as their benefits, so for those wishing to avoid these Turmeric may be very well worth a try as an alternative.

Turmeric has also showed promise in lowering cholesterol levels and fighting atherosclerosis, a build-up of fatty deposits in the arteries that can lead to heart attack. Preliminary studies indicate that the curcumin in Turmeric may even block the progression of multiple sclerosis (MS). The interest in the plant's potential for preventing neurological diseases, such as MS and even Alzheimer's, was spurred by the realization that elderly Indian populations that consume considerable amounts of Turmeric in their diet are far less likely than their Western counterparts to develop such ailments. Scientists conjecture that Turmeric benefits such neurological illnesses by minimizing inflammation, a theory supported by recent findings that people (Westerners in this case) regularly taking anti-inflammatory remedies for arthritis are less likely to develop Alzheimer's disease. More research in this area is clearly needed before any specific recommendations can be made.

Reinforcing one of Turmeric's many ancient uses, German health authorities have declared Turmeric tea to be a valuable remedy for digestive problems. Laboratory findings support this: the curcumin in turmeric fights bacteria commonly responsible for infectious diarrhea. Clinical trials have been promising for this time-tested use as well. In a widely cited 1989 study, researchers found that 500 mg capsules of curcumin taken four times daily were far more effective than a placebo in relieving indigestion.



Animal studies provide evidence that Turmeric can protect the liver from a number of damaging substances such as carbon tetrachloride and acetaminophen (popularly known as paracetamol and used commonly for headache and pain, this can cause

liver damage if taken in large quantities or in someone who drinks alcohol regularly.) Turmeric accomplishes this, in part, by helping to clear such toxins from the body and by protecting the liver from damage.

Finally, there has been a substantial amount of research on Turmeric's anti-cancer potential. Evidence from laboratory and animal studies suggests that curcumin has potential in the treatment of various forms of cancer, including prostate, breast, skin, and colon; human studies will be necessary before it's known to what extent these results may apply to people.



ELEVEN

ROSEMARY



Rosemary is a magnificent plant with a long history; in fact, it's one of the oldest recorded herbs in history. Originally from the Mediterranean and Portugal, Rosemary was introduced to the Alps in the Middle Ages and was brought to America by the early colonists. It was highly prized in the first settlements because the plants had to be carefully stored inside during the cold New England winters.

What can it do for us?

Rosemary has been around for a long time. It therefore enjoys a long list of claims regarding its medicinal value, including use as a tonic, a digestive aid, to treat depression, headaches, and muscle spasms, and as an expectorant, promoter of menstrual flow, and stimulant for production of bile.

Rosemary is a stimulant of the circulatory system. Externally, it's used to treat bites, stings, sores, eczema, bruises, and wounds, is used in lotions to ease rheumatism and arthritis, and, mixed with borax and used cold, is said to make a nice-smelling hair wash that can prevent dandruff and stimulate hair growth. Rosemary is particularly effective at treating oily skin and oily hair, helping to restore proper balance and oil levels.

Rosemary's powerful antimicrobial properties help to prevent infections and treat skin conditions such as athlete's foot, psoriasis, eczema, shingles, and neuralgia.

Internally, it's used to treat migraines, bad breath, and to stimulate the sexual organs (but it can be an irritant to the stomach, intestines, and kidneys, so use it

sparingly!). Rosemary is also used to treat nervous disorders, upset stomachs, and is used to regulate the menstrual cycle and to ease cramps. Mix the crushed leaves generously into meats, fish, potato salads, etc. at your next picnic to prevent food poisoning. The essential oil is used in aromatherapy as an inhalant and decongestant, and to enhance memory and clear concentration.



Rosemary is taken by mouth to treat indigestion, headache, stress, nervous tension, to promote menstrual flow, and to raise low blood pressure. It's put on the skin to stop redness and pain and to treat fibromyalgia and sciatica (pain in the muscles and nerves). Rosemary oil has been used to promote wound healing.

The most common doses for Rosemary are listed below.

- *General Use*, dried leaf or twig: 2 to 4 g, or as a tea, three times daily, by mouth
- *General Use*, liquid extract (1:1 preparation in 45% alcohol): 2 to 4 ml (40 to 80 drops) three times daily, by mouth
- *General Use*, tincture (200 to 300 g - 7 to 10 oz. - of fresh chopped herb in a liquid containing 35% to 40% alcohol): 2 ml (40 drops) twice daily, by mouth
- *Supportive Treatment for Rheumatic Diseases and Circulatory Problems*, bath additive: Decoct 50 g (2 oz) of Rosemary leaf in 1 liter (2 pints) water, let stand covered for 15 to 30 minutes, strain and add to one full bath
- *Upset Stomach*, alcoholic extract (1.5 g per ml): 10 ml three times daily, by mouth
- *Upset Stomach*, infusion: 2 g Rosemary leaf in 150 ml water, taken three times daily, by mouth.

History and Lore

Rosemary has a rich history, holding a special position among herbs for the symbolism connected with it. References to Rosemary were found written in

cuneiform on stone tablets dating from the 5th millennium B.C. Dioscorides, the 1st Century Greek physician, recommended it for its "warming faculty". The Latin name, *rosmarinus*, means "dew of the sea"; it was so called because it grew around the Mediterranean and became associated in ancient Rome with Venus, the goddess of love who emerged from the sea. Because of that legend - and also because it was reputed to strengthen memory - it became the symbol of fidelity in love. Rosemary was used at both weddings and funerals, for decking churches and banqueting halls at festivals, as incense in religious ceremonies, and in magic spells; meanwhile, Ancient Romans and Greeks wore Rosemary wreaths on their heads when studying to enhance their memory. (This use is still perpetuated today: Rosemary is burned in Greek students' homes while studying.)

Christians called Rosemary the "Holy Herb" and associated it with Mary, who, according to Spanish legend, draped her cloak over a Rosemary bush on the Holy Family's flight to Egypt, turning the color of the blossoms from white to blue. (Some say this is the source of the name: the "Rose of Mary".) Rosemary - along with juniper and thyme - was burned in medieval hospitals as an antiseptic. It was widely grown in kitchen gardens in England at that time; an old folk saying was that "Where rosemary flourishes, the woman rules." Down through the ages, it continued to enjoy a reputation for aiding memory. In Shakespeare's *Hamlet*, Ophelia says, "There's rosemary, that's for remembrance..."

At weddings, it was first dipped into scented water, and then entwined in the wreath worn by the bride; Anne of Cleves wore such a wreath at her wedding in 1539. A Rosemary branch, gilded with multi-colored silk ribbons, was also presented to wedding guests as a symbol of love and loyalty. Together with an orange stuck with cloves it was given as a New Year's gift; allusions to this custom are to be found in Ben Jonson's plays.

Miss Anne Pratt says in her *Flowers and their Associations*:

'But it was not among the herbalists and apothecaries merely that Rosemary had its reputation for peculiar



virtues. The celebrated Doctor of Divinity, Roger Hacket, did not disdain to expatiate on its excellencies in the pulpit. In a sermon which he entitles "A Marriage Present," which was published in 1607, he says: "Speaking of the powers of rosemary, it overtoppeth all the flowers in the garden, boasting man's rule. It helpeth the brain, strengtheneth the memorie, and is very medicinable for the head. Another property of the rosemary is, it affects the heart. Let this rosmarinus, this flower of men ensigne of your wisdom, love and loyaltie, be carried not only in your hands, but in your hearts and heads."

Sir Thomas More writes:

"As for Rosmarine, I lett it runne all over my garden walls, not onlie because my bees love it, but because it is the herb sacred to remembrance, and, therefore, to friendship; whence a sprig of it hath a dumb language that maketh it the chosen emblem of our funeral wakes and in our buriall grounds."

In early times, Rosemary was cultivated in kitchen gardens and came to represent the dominant influence of the house mistress. "Where Rosemary flourished, the woman ruled", says the old adage - as it also did with Parsley.

John Lindley and Thomas Moore's 1889 *The Treasury of Botany* states:

"There is a vulgar belief in Gloucestershire and other counties, that Rosemary will not grow well unless where the mistress is 'master'; and so touchy are some of the lords of creation upon this point, that we have more than once had reason to suspect them of privately injuring a growing rosemary in order to destroy this evidence of their want of authority."

Both in Spain and Italy, Rosemary was considered a safeguard from witches and evil influences in general. In Sicily, it's believed that young fairies, taking the forms of snakes, lie amongst Rosemary's branches. It was an old custom to burn Rosemary in rooms where an ill person lay; and in French hospitals it was customary to burn Rosemary with Juniper berries to purify the air and prevent infection. A sprig of Rosemary was distributed to mourners at funerals to be cast on to the

coffin after being lowered into the grave (which was a custom in Wales until quite recently).

Miss Rohde gives the following quotation from *Banckes' Herbal*:

'Take the flowers thereof and make powder thereof and binde it to thy right arme in a linnen cloath and it shale make thee light and merrie.

'Take the flowers and put them in thy chest among thy clothes or among thy Bookes and Mothes shall not destroy them.

'Boyle the leaves in white wine and washe thy face therewith and thy browes, and thou shalt have a faire face.

'Also put the leaves under thy bedde and thou shalt be delivered of all evill dreames.

'Take the leaves and put them into wine and it shall keep the wine from all sourness and evill savours, and if thou wilt sell thy wine thou shalt have goode speede.

'Also if thou be feeble boyle the leaves in cleane water and washe thyself and thou shalt wax shiny.

'Also if thou have lost appetite of eating boyle well these leaves in cleane water and when the water is colde put thereunto as much of white wine and then make sops, eat them thereof wel and thou shalt restore thy appetite againe.

'If thy legges be blowen with gowte, boyle the leaves in water and binde them in a linnen cloath and winde it about thy legges and it shall do thee much good.

'If thou have a cough drink the water of the leaves boyl'd in white wine and ye shall be whole.

'Take the Timber thereof and burn it to coales and make powder thereof and rubbe thy teeth thereof and it shall keep thy teeth from all evils. Smell it oft and it shall keep thee youngly.

'Also if a man have lost his smellyng of the ayre that he may not draw his breath, make a fire of the wood, and bake his bread therewith, eate it and it shall keepe him well.

'Make thee a box of the wood of rosemary and smell to it and it shall preserve thy youth.'

One old legend compares the growth of the plant with the height of the Saviour and declares that after thirty-three years it increases in breadth, but never in height.

In a copy of an old manuscript in the library of Trinity College, Cambridge, the translator, Danyel Bain, states that Rosemary was unknown in England until Queen Philippa's mother - the Countess of Hainault - sent some to her daughter.

From the *Grete Herbal*:

"ROSEMARY - For weyknesse of ye brayne. Against weyknesse of the brayne and coldenesse thereof, sethe rosemaria in wyne and lete the pacyent receye the smoke at his nose and keep his heed warme."

"Hungary Water", as it's now known, was first invented for Elizabeth, Queen of Hungary for external application to restore the use of paralyzed limbs; she was said to have been completely cured by its continued use, and a formula in her handwriting, dated to 1235, is preserved in Vienna. Hungary Water can be prepared by putting one and a half lbs. (700 g) of fresh Rosemary tops in full flower into one gallon (4 liters) of spirits of wine, then allowing it to stand for four days before distilling it. Hungary Water was also vigorously rubbed into the hands and feet as a treatment for gout.

How does it work?

Rosemary contains over 240 medicinally and nutritionally active compounds. Of these compounds carnosol, carnosic acid, rosmarin, and diosmin are of particular interest to medical researchers. Carnosic acid, a diterpene known to be found in only two plants, is one of Rosemary's extremely potent antioxidant, anticancer and antimutagenic agent.

Rosemary's medicinal compounds act as healing and health-promoting agents and, in combination, are exceptionally strong. Oil of Rosemary can be used to improve health internally, externally and through aromatherapy, effectively supporting the body's immune, digestive, circulatory and respiratory systems. This wide spectrum

of actions enables Rosemary to act as a healer and preventative for a multitude of health conditions affecting vital body systems. An exceedingly powerful antioxidising, liver supporting, anticancer, pain relieving, and memory enhancing agent, Rosemary is also antibacterial, antifungal, and antiviral. Rosemary's antioxidant action is more potent than vitamin E, and is in fact so powerful that the US government has issued several patents for the use of Rosemary extracts as commercial antioxidants.

Multiple trials have demonstrated Rosemary's ability to kill numerous harmful and potentially deadly organisms including *Candida*, *Salmonella*, *Staphylococcus*, *E.Coli*, and *Aspergillus* bacteria.

Interestingly, researchers have found evidence to support the traditional belief that Rosemary is a valuable aid to memory, establishing that after a Rosemary aromatherapy session participants were more alert, had lower anxiety and performed math computations much faster.



TWELVE

SAGE



The Common Sage, an evergreen under-shrub, is a familiar plant of the kitchen garden, and is sufficiently hardy to stand any ordinary winter outside. Its native habitat is the northern shores of the Mediterranean. Sage has been cultivated for culinary and medicinal purposes for many centuries in England, France and Germany.

What can it do for us?

Because of its antiseptic qualities, Sage is often used to alleviate sore throats, mouth ulcers or gingivitis (chronic bad breath due to a mouth or gum infection). Add 3 g of sage leaf to 150 ml of boiling water, strain after ten minutes and then let cool. The resulting Sage tea can then be used as a mouthwash or gargle a few times a day. Apple Cider Vinegar and salt can be added for extra benefit.

There's also compelling research indicating that Sage may be of value to diabetics. Laboratory studies indicate that Sage may boost insulin's action, lowering blood sugar. Sage was among 24 herbs tested that were found to boost insulin activity two- to fivefold or more in patients with Type 2 (non-insulin dependent) diabetes. For people who have diabetes, this means that drinking Sage tea in conjunction with their insulin treatments may be worth a try.

Sage is reported to have moisture-drying properties, and can be used as an antiperspirant; it also inhibits perspiration itself, and can be used to alleviate fevers or the night sweats that are for many women an unwelcome symptom of menopause. It can also be used as a compress on cuts and wounds. As an astringent, Sage can be used as a refreshing aftershave, and there are some reports that a

Sage infusion can be used effectively to color gray hair. As with a number of other herbs, Sage tea can also be tried for digestive problems and flatulence.

History and Lore

The name of the genus, *Salvia*, is derived from the Latin *salvere*, "to be saved", as a reference to the curative properties of the herb, which was in olden times widely used medicinally. This name was popularly corrupted to *Sauja* and *Sauge* (the French form) and in Old English became "Sawge", in turn evolving to the present-day name.

Sage has one of the longest histories of use as a medicinal herb. Its medicinal properties were known to the early Romans. The ancient Greeks valued Sage for heightening the senses and for loss of memory. The ancient Egyptians used it as a remedy against the plague and gave it to women who were unable to bear children.



Gerard mentions it as being in 1597 a well-known herb in English gardens, several varieties growing in his own garden in London. Among the Ancients and throughout the Middle Ages it was held in high repute: *Cur moriatur homo cui Salvia crescit in horto?* ('Why should a man die whilst Sage grows in his garden?') has a corresponding English proverb:

"He that would live for aye,
Must eat Sage in May."

The herb is sometimes spoken of as *S. salvatrix*: "Sage the Saviour". An old tradition recommends that Rue should be planted among Sage, so as to toads - thought to be noxious - away from the valuable plants. It was considered that Sage would thrive or wither just as the owner's business prospered or failed, and in the English county of Buckinghamshire another tradition maintained that the wife rules when Sage grows vigorously in the garden!

In the Jura district of France, in Franche-Comte, the herb is supposed to mitigate grief, mental and bodily, and Samuel Pepys writes in his famous diary: "Between Gosport and Southampton we observed a little churchyard where it was customary to sow all the graves with Sage."

The following is a translation of an old French saying:

"Sage helps the nerves and by its powerful might
Palsy is cured and fever put to flight",

And John Gerard writes:

"Sage is singularly good for the head and brain, it quickeneth the senses and memory, strengtheneth the sinews, restoreth health to those that have the palsy, and taketh away shakey trembling of the members."

He shared the popular belief that it was "efficacious against the bitings of serpents", and says:

"No man need to doubt of the wholesomeness of sage ale, being brewed as it should be with sage, betony, scabious, spikenard, squinnette [squincancywort] and fennell seed."



Many kinds of Sage have been used as substitutes for tea. The Chinese are said to prefer Sage tea to their own native China tea, at one time bartering for it with the Dutch and offering three times the quantity of their best tea in exchange. It's recorded that George Whitfield, living in Oxford in 1733, thrived wholesomely, if sparingly, on a diet of Sage tea, sugar and coarse bread!

It was thought that Sage used in the making of cheese improved its flavor. John Gay refers to this in his 18th Century poem:

"Marbled with Sage, the hardening cheese she pressed."

At one time, in the English county of Sussex, to chew Sage leaves on nine consecutive mornings while fasting was a country cure for ague (shivering fevers), and the dried leaves have been smoked in pipes as a remedy for asthma.

Among many uses of the herb, Nicholas Culpeper, the 17th Century British physician, says that it is:



"Good for diseases of the liver and to make blood. A decoction of the leaves and branches of Sage made and drunk, saith Dioscorides, provokes urine and causeth the hair to become black. It stayeth the bleeding of wounds and cleaneth ulcers and sores. Three spoonful of the juice of Sage taken fasting with a little honey arrests spitting or vomiting of blood in consumption. It is profitable for all pains in the head coming of cold rheumatic humours, as also for all pains in the joints, whether inwardly or outwardly. The juice of Sage in warm water cureth hoarseness and cough. Pliny saith it cureth stinging and biting serpents. Sage is of excellent use to help the memory, warming and quickening the senses. The juice of Sage drunk with vinegar hath been of use in the time of the plague at all times. Gargles are made with Sage, Rosemary, Honeysuckles and Plantains, boiled in wine or water with some honey or alum put thereto, to wash sore mouths and throats, as need requireth. It is very good for stitch or pains in the sides coming of wind, if the place be fomented warm with the decoction in wine and the herb also, after boiling, be laid warm thereto."

Native Americans regard Sage as one of the four sacred plants, and use it in ceremonies to purify areas of bad feelings and negative emotions. The Sage is tied into bundles called "smudge sticks" which are then lit, and the aromatic, silvery smoke is wafted around people, rooms, dwellings, or other "unhappy" affected areas that need to be cleansed.

How does it work?

Sage oil contains the chemical substances alpha- and beta-thujone, camphor, and cineole as well as other constituents including rosmarinic acid, tannins, and flavonoids. Clinical studies also indicate that Sage oil has antibacterial, antifungal, and antiviral effects. Most interestingly, recent research has found that Sage oil extracts in capsule form produced, with no side effects, markedly improved memory function in test subjects, and it's possible that Sage may protect a key chemical destroyed in the brain by Alzheimer's disease. Although studies are incomplete at the time of writing, this is very promising research and should be followed by anyone who has or is caring for someone with Alzheimer's.



THIRTEEN

THYME



There are many varieties of Thyme. Woolly and creeping species are grown for ground covers; common Thyme - an "improved" cultivated form of the Wild Thyme of the mountains of Spain and other Mediterranean countries - is noted for its aroma and flavor; and silver and lemon Thyme are primarily planted as ornamentals. (Lemon Thyme has wonderfully fragrant foliage, and - as its tiny gray-green leaves are variegated with yellow - is also a very attractive

addition to any garden.) However, it's common Thyme, also known as garden Thyme, that's of principal medicinal value.

What can it do for us?

Thyme is generally used in combination with other remedies, and is a powerful antiseptic. It's used in cases of anemia, bronchial ailments, laryngitis, tonsillitis, dyspepsia, chronic gastritis and other intestinal problems, is used as an antiseptic against tooth decay, and destroys fungal infections such as athlete's foot and skin parasites such as crabs and lice. It's effective for colic, flatulence, and particularly so for sore throats and colds. And since Thyme is very effective in relaxing smooth muscles, it's useful in asthma and hypertension, as well as relaxing the gastrointestinal tract.

Thymol, Thyme's principal active ingredient, is a powerful antiseptic which works well against bacterial and fungal infections, both internally and externally. It's also employed as a deodorant and local anesthetic. It's been extensively used to medicate gauze and wool for surgical dressings. It resembles carbolic acid in its action, but is less irritating to wounds, while the germicidal action is greater. It's

therefore preferable as a dressing and has in wartime been one of the most extensively used antiseptics. Thyme has been used as a compress for lung congestion such as asthma, bronchitis, colds and flu, and as a poultice for wounds, mastitis, insect bites and stings, and has even been mentioned as having anti-aging properties.



History and Lore

While the Sumerians used Thyme as an antiseptic over 5,000 years ago, and the early Egyptians used Thyme in mummification and embalming, the name Thyme, in its Greek form, was first given to the plant by the Greeks as a derivative of the word thymos which meant "to perfume"; either because they used it as incense, for its balsamic odor, or because it was taken as a type of all sweet-smelling herbs (in Greece lambs were put to graze on fields of wild Thyme to make their meat more tasty). Others derive the name from the Greek word thumus, meaning "courage", or "energy", the plant being held to be a great source of invigoration, its qualities inspiring bravery; the belief continuing into mediaeval times, the Scots drank wild

Thyme tea for courage before battle. Lady Northcote (in *The Herb Garden*) says that among the Greeks, Thyme denoted graceful elegance; "to smell of Thyme" was an expression of praise, applied to those whose style or performance was admirable.

The antiseptic properties of Thyme were fully recognized in ancient times, there being a reference in Virgil's *Georgics* to its use as a fumigator - it was strewn about or worn on clothes to ward off everything from plague to lice - while Pliny tells us that, when burned, "it puts to flight all venomous creatures". The Romans used Thyme to give an aromatic flavor to cheese (and also to liqueurs), and would bathe in water scented with Thyme before going into battle. As a remedy, it was used to treat melancholy, headache, digestive problems, and respiratory complaints.

It remained an emblem of activity, bravery and energy, and in the days of chivalry it was the custom for ladies to embroider a bee hovering over a sprig of Thyme on the scarves they presented to their knights. In the south of France, wild Thyme is a symbol of extreme Republicanism, tufts of it being sent with the summons to a Republican meeting.

According to Gattefosse, the Thyme is "a faithful companion of the Lavender. It lives with it in perfect sympathy and partakes alike of its good and its bad fortune."



Culpeper states that Thyme is:

"a noble strengthener of the lungs, as notable a one as grows, nor is there a better remedy growing for hooping cough. It purgeth the body of phlegm and is an excellent remedy for shortness of breath. It is so harmless you need not fear the use of it. An ointment made of it takes away hot swellings and warts, helps the sciatica and dullness of sight and takes away any pains and hardness of the spleen: it is excellent for those that are troubled with the gout and the herb taken anyway inwardly is of great comfort to the stomach."

John Gerard maintains it will "cure sciatica and pains in the head", and is "healing in leprosy and the falling sickness", and in the Middle Ages it was prescribed as a cure for nightmares.

Camphor of Thyme was noticed first by Neumann, apothecary to the Court at Berlin in 1725. It was called Thymol and carefully examined in 1853 by Lallemand and recommended instead of Phenol (carbolic acid) in 1868 by Bouilhon, apothecary, and Paquet, M.D., of Lille.

Bees' affinity for Thyme is well known; Thyme honey, made when bees collect pollen from Thyme flowers, is renowned. The fine flavor of the honey of Mount Hymettus near Athens was said to be due to the wild Thyme with which it was covered, being of such special flavor and sweetness that in the minds and writings of the Ancients, sweetness and Thyme were inextricably linked. "The honey which comes from thyme is held to be the best and most profitable", wrote Pliny.



How does it work?

Thyme's constituents are flavonoids (apigenin, luteolin, eriodicytol), tannins, bitter compounds, resin, saponin, and volatile oils (thymol, methylchavicol, cineole and borneol). Thymol is the most valuable for medicinal purposes, but carvacrol, an isomeric phenol, is present in some oils.

Carvacrol has not hitherto been employed in medicine, but the antiseptic properties of origanum oil, consisting principally of carvacrol, as well as of the phenol itself, have been investigated and iodocrol - an iodide of carvacrol - a reddish-brown powder, has been used lately as an antiseptic in treatment of eczema and other skin diseases.

Thymol has been shown to kill bacteria, fungi, and yeasts. Thymol, carvacrol, and the saponins have expectorant properties that help to relieve bronchitis and lung conditions. Thymol and carvacrol can also relax smooth muscles, thereby aiding

digestion, easing menstrual cramps, and alleviating respiratory conditions. Thyme's astringent tannins may help relieve diarrhoea, while its bitters can stimulate digestion.



FOURTEEN

PARSLEY



Parsley is probably the most familiar herb to our eye, widely employed as a culinary garnish for more than 2,000 years; the English introduced it to the world after getting it from the Romans, who in turn got it from the Greeks. However, although nutritionally rich, it's seldom actually eaten. Add it to soups, stews, sauces or pies as an easy way to benefit from its qualities!

What can it do for us?

Parsley provides an abundance of vitamins and minerals: vitamins A and C, potassium, calcium, magnesium, phosphorus, iron and other essentials, including chlorophyll. It promotes good digestion, relieves wind, reduces muscle tension and spasm, nourishes the kidneys, liver and bladder, helps hypertension, and is a mild aphrodisiac! The large amount of chlorophyll which Parsley contains makes it nature's original breath freshener, and is often offered with garlic to counteract the latter's pungent aroma. Simply eat the leaves right off the plant to combat breath odors.

Parsley is a diuretic, flushing the kidneys, helping to stimulate urination when the kidneys are sluggish, and acting as a mild laxative; Parsley tea was used in the trenches of World War I, where foot soldiers, suffering from dysentery, often developed kidney complications. It's a good carminative (which means that it helps the body release cramp-producing gas in the stomach and intestines), and Parsley also helps move excess mucous from the body. It can aid the body in expelling tapeworms and other parasites, is used to encourage menstrual flow, and even

encourages milk production in nursing mothers. In other words, Parsley gets things moving along!

Parsley tea can be used to settle the stomach after a meal. The tea is also used to treat congestion caused by flu and colds; to lessen asthma attacks, and to remedy anemia (because of its high organic iron content). Eaten fresh, Parsley is a tonic to the body, as it contains so many vitamins and minerals necessary for good health.



And that's not all. Parsley also reduces inflammations, and is a powerful free radical scavenger. Externally, oil of Parsley will repel head lice, and try making an ointment for use on swellings. Because Parsley contains natural histamine inhibitors, pound the leaves into a paste and mix with a little water or Parsley tea to use on skin for easing swelling and itching from bug bites and stings (a little oatmeal can be added to this mixture to thicken it). As an instant remedy, take fresh or pulped leaves and place on minor cuts and abrasions to soothe and heal, and try dipping a cloth in unsweetened Parsley tea and place it over your closed eyes for ten minutes to reduce eye fatigue.

Parsley stimulates the circulation and the digestive system. It's a good tonic herb and is a remedy for flatulence. Parsley tea taken hot last thing at night can be effective in loosening a stubborn cough.

Note that pregnant women should avoid all but small quantities of Parsley because it can be irritating to the kidneys, and may be over-stimulating to the uterus.

The usual dose of Parsley leaf or root is 6 g (1/4 oz.) of dried plant per day, consumed in three doses of 2 g, each steeped in 150 ml of water. Extract of Parsley leaf and root are made at a ratio of 1 g of plant to 1 ml of liquid, and used at a dose of 2 ml three times daily. For an infusion, pour a cup of boiling water on to one or two teaspoonfuls of the leaves or root and let infuse for five to ten minutes in a closed container. This should be drunk three times a day.

History and Lore

Petroselinum, the specific name of the Parsley, from which the everyday name is derived, is of classic origin, and is said to have been assigned to it by Dioscorides. The Ancients distinguished between two plants *Selinon*, one being the Celery (*Apium graveolens*) and called *heleioselinon* - i.e. "Marsh *selinon*," and the other - our Parsley - *Oreoselinon*, "Mountain *selinon*"; or *petroselinum*, signifying "Rock *selinon*". This last name in the Middle Ages became corrupted into *Petrocilium* - this was anglicized into Petersylinge, Persele, Persely and finally Parsley.

The Greeks held Parsley in high esteem. They believed that Hercules had used a garland of Parsley, so the Greeks crowned the winners of games and war with garlands of Parsley in honor of Hercules' mighty feats. Homer tells us that Greek warriors fed Parsley to their horses so they would run better.

The Greeks were reluctant to actually eat Parsley, holding it sacred to the dead. It was reputed to have sprung from the blood of a Greek hero, Archemoros, the herald of death; Parsley is said to have sprung up where his blood drenched the ground after serpents devoured him. Later it became associated with Persephone who guided the souls of the dead to the underworld, and was used to decorate the tombs and graves of the dead, in hopes of pleasing her. "He needs nothing now but a bit of parsley" was the rather grim way among the Ancient Greeks of saying that

a man would soon need Parsley as a decoration for his funeral. Wreaths of it were placed on graves; this was fitting, as it kept green for a long time. Later, Christians replaced Persephone with St. Peter, but maintained the connection between parsley and guidance of the soul.

Greek gardens were often bordered with Parsley and Rue. Parsley was used as far back as the times of Hippocrates as a medicine believed to help rheumatism, relieve kidney pains, and improve general health.



For the Romans too, Parsley represents both death and evil as well as protection and purification. The Romans would tuck sprigs of Parsley in their togas for protection and may have been the first ones to adorn their plates with sprigs of Parsley - not for decoration, but to protect against food contamination. Parsley garlands were also worn at great banquets. It masked the stronger odors of onion and garlic and was thought to absorb the vapors from wine delaying the onset of inebriation.

There's an old superstition which warns against transplanting Parsley; to transplant it is difficult, and it's purported to bring bad luck. Furthermore, the seed is very slow to germinate. Before it takes root it goes, it's said, seven times to the devil (or nine, in some versions); and for especially good luck with it, sow it on a Good Friday. However, it will not thrive unless it's sown by a strictly honest person, preferably a woman! Traditionally, a flourishing bed of Parsley recalls the pleasing rhyme:

"Where the mistress is the master,
There the parsley grows the faster."

The Hamburg, or turnip-rooted Parsley, is grown only for the sake of its enlarged fleshy taproot. No mention appears to have been made by the Ancients, or in the Middle Ages, of this variety, which Philip Miller in his 1771 *Gardener's Dictionary* calls "the largerooted Parsley", and which under cultivation develops both a parsnip-like as well as a turnip-shaped form. Miller says:

"This is now pretty commonly sold in the London markets, the roots being six times as large as the common Parsley. This sort was many years cultivated in Holland before the English gardeners could be prevailed upon to sow it. I brought the seeds of it from thence in 1727; but they refused to accept it, so that I cultivated it several years before it was known in the markets."

Of Garden Parsley (which he calls Parsele) John Gerard says, "It is delightful to the taste and agreeable to the stomache", also "the roots or seeds boiled in ale and drank, cast foorth strong venome or poyson; but the seed is the strongest part of the herbe."

Though the medicinal virtues of Parsley are still not fully recognized, in former times it was considered a remedy for more disorders than it's now used for. William Turner wrote in his 1548 *The Names of Herbes*; "If parsley is thrown into fishponds it will heal the sick fishes therein." Its imagined quality of destroying poison, to which Gerard refers, was probably attributed to the plant from its remarkable power of overcoming strong scents, even the odor of garlic being rendered almost imperceptible when mixed with that of Parsley.

Culpeper tells us:

"It is very comfortable to the stomach... good for wind and to remove obstructions both of the liver and spleen... Galen commendeth it for the falling sickness... the seed is effectual to break the stone and ease the pains and torments thereof... The leaves of parsley laid to the eyes that are inflamed with heat or swollen, relieves them if it be used with bread or meat... The juice dropped into the ears with a little wine easeth the pains."

How does it work?

A cup of minced fresh Parsley is a small nutritional powerhouse: it contains more beta-carotene than a large carrot, almost twice as much vitamin C as an orange, more calcium than a cup of milk, and twenty times as much iron as a serving of liver.

It also contains an essential oil including the active ingredients apiol and myristicin, as well as limonene, eugenol, pinene and terpinene; vitamin A; and flavanoids including apiin, luteolin, and glycosides of apigenin and luteolin. The flavonoids are anti-inflammatory and antioxidant, while apiol and myristicin have proven diuretic properties. The volatile oil is known to relieve cramps and flatulence.

Parsley's traditional use for inducing menstruation may be explained by evidence that apiol and myristicin also stimulate contractions of the uterus. Indeed, extracted apiol has been tried for the purpose of causing abortions - a good reason why it shouldn't be taken in significant quantities by anyone who is pregnant.

Modern herbalists recommend Parsley seed for preventing vascular disease, noting that the seed, as with other plants in the carrot family, contains 15 compounds that act much like calcium channel blockers. Dr. James Duke, author of *The Green Pharmacy*, explains that vegetarians who eat lots of carrots may have lower levels of vascular disease partly due to these compounds - which are more highly concentrated in Parsley seed.

All Parsley family herbs provide a good source of phthalides, coumarins, terpenoids, polyacetylenes, and other phytochemicals - many of which have cancer-preventive properties. These beneficial substances block metabolic pathways associated with the development of cancer, or induce enzymes that help metabolize and eliminate carcinogens. Next time you're in a restaurant, eat that sprig of Parsley on the side of the plate!



FIFTEEN

BASIL



Say the word "Basil", and most people will think of the tasty green sauce known as pesto, which like the word pestle (as in mortar and pestle) comes from the Italian word *pestare* meaning to "pound" or "stamp on". This refers to the traditional way in which pesto was made, by grinding the fresh leaves in a mortar along with garlic, salt, pine nuts, cheese and olive oil.

Although we tend to associate Basil with Italy and other Mediterranean countries, it actually originated in India, and was brought to the Mediterranean via the spice routes in ancient times.

What can it do for us?

The whole herb, both fresh and dried, is used medicinally. Basil has been used for mild nervous disorders, for the alleviation of rheumatic pains, and, although the mechanism isn't yet understood, preliminary studies have shown that the leaf and seed may help people with Type 2 diabetes control their blood sugar levels. In addition, the seed has been found to relieve constipation.

The volatile oil of Basil has shown antibacterial, antifungal, and antiviral activity in test tube studies. It's also believed to act as a carminative, relieving intestinal gas, and as a mild diuretic.

As a natural tranquilizer, Basil is said to be a tonic and calms the nervous system. It aids the digestion and also eases stomach cramps, relieves nausea and arrests vomiting.

Basil is an important herb to detoxify an over-indulged body, where eating patterns have been erratic. It'll quickly restore the blood to its natural balance, and help eliminate toxins formed by incorrect eating and environmental pollution.

Most remarkable of all, Basil is the herb that lifts the spirit. It helps with heavy-heartedness and anxiety, and has the ability to soothe tension, yet helps you to remain attentive and alert. A pleasant tea can be made by steeping a teaspoon of Basil leaves in a cup of water for ten minutes.

History and Lore

Cultivated for over two thousand years, Basil symbolizes love. At one time young girls would place some on their windowsill to indicate they were looking for a suitor. In Tudor times, small pots of this were given by farmers' wives to visitors as parting gifts. It's also reputed that any man will fall in love with a woman from whom he accepts some Basil from as a gift: in present-day Romania, if a young lady offers a young man a sprig of Basil, and he accepts, they are officially engaged.

In ancient Rome, the name for the herb, *Basileuscus*, referred to Basilisk, the fire breathing dragon. Taking the herb was thought to be a charm against the beast. With this in mind, it's interesting that up till recent times Basil has been used as an antidote to venom. The Greeks also had great respect for Basil, their word for it meaning "royal" or "kingly". It was believed that only the king himself should harvest Basil, and then only with the use of a golden sickle. Meanwhile, in India Basil was held to be sacred; it was believed that if a leaf of Basil was buried with a person, it would guarantee their passage to heaven.

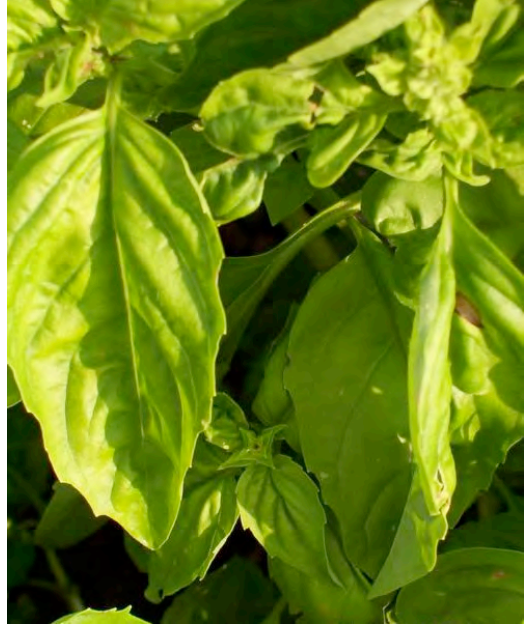
In marked contrast, however, other ideas prevailed among the ancient Greeks that it represented hate and misfortune; many believed that scorpions would breed under pots of Basil. They painted poverty as a ragged woman with a Basil at her side, and thought the plant would not grow unless railing and abuse were poured forth at the time of sowing. The Romans similarly believed that the more it was abused, the better it would



prosper. These may represent ways to "fool the gods" so as not to bring bad luck by too much obsequy.

The physicians of old were quite unable to agree as to its medicinal value, some declaring that it was a poison, and others a precious simple. Culpeper tells us:

"Galen and Dioscorides hold it is not fitting to be taken inwardly and Chrysippus rails at it. Pliny and the Arabians defend it. Something is the matter, this herb and rue will not grow together, no, nor near one another, and we know rue is as great an enemy to poison as any that grows."



However, Basil was said to create sympathy between human beings; a tradition still exists in Moldavia that a youth will love any maiden from whose hand he accepts a sprig of this plant. In Crete it symbolizes "love washed with tears", and in some parts of Italy Basil is a love-token. Boccaccio's story of Isabella and the Pot of Basil, immortalized by Keats, keeps the plant in our memory. Tusser includes it among the Strewing herbs and Drayton places it first in his poem *Polyolbion*:

"With Basil then I will begin
Whose scent is wondrous pleasing."

John Parkinson wrote in his *Paradisi in sole paradisus terrestris*, in 1629:

"The ordinary Basill is in a manner wholly spent to make sweete or washing waters among other sweet herbs, yet sometimes it is put into nosegays. The Physicall properties are to procure a cheerfull and merry hearte whereunto the seeds is chiefly used in powder."

In Malaysia and Iran, Basil is planted on graves, and in Egypt women scatter the flowers on the resting-places of those belonging to them. Some people believe if

you put some Basil in your wallet, you will attract money, success and prosperity.
(Nothing to lose, surely?)

How does it work?

Basil contains a strong-scented volatile oil composed primarily of terpenoids, particularly eugenol, thymol, and estragol. This volatile oil has shown antibacterial, antifungal, and antiviral activity in test tube studies, while the terpenoids in Basil are important anti-cancer phytochemicals - naturally occurring substances that work in conjunction with vitamins and other nutrients to stimulate protective enzymes and block metabolic pathways associated with the development of cancer and heart disease; terpenoids have been shown to suppress the growth of tumors and decrease the number of tumors produced.



SIXTEEN

RYE



Rye is a cereal grain that looks like wheat but is longer and more slender and varies in color from yellowish brown to grayish green. It's generally available in its whole or cracked grain form or as flour or flakes, which look similar to old-fashioned oats. Because it's difficult to separate the germ and bran from the endosperm of Rye, Rye flour usually retains a large quantity of nutrients, in contrast to refined wheat flour. Rye has a very hardy, deep, nourishing taste.

Rye is the key ingredient in traditional Rye and pumpernickel breads. Since its gluten is less elastic than wheat's, and it holds less gas during the leavening process, breads made with Rye flour are more compact and dense. Since it's difficult to separate the germ and bran from the endosperm of Rye, Rye flour, unlike wheat flour, usually retains a large quantity of nutrients.

What can it do for us?

In the United States, where wheat products are the norm, goods made from Rye are rarely given premier shelf space on grocery store shelves and, out of sight, often remain out of mind. But foods made from whole Rye are worth looking for, not only for their rich, hearty taste, but also for the numerous health benefits they supply.

As whole-grain Rye also helps in weight management and maintains the functional activity of our intestinal tract, it's clearly very much to be recommended as a wholesome part of a healthy diet.

Whole-grain Rye bread has been shown to:

- ✓ Produce a low insulin response after meals
- ✓ Reduce blood cholesterol levels in men
- ✓ Increase bowel movement
- ✓ Promote the growth of bifido bacteria
- ✓ Reduce the amount of harmful metabolites in feces, and
- ✓ Raise blood enterolactone levels.



Rye is a good source of fiber, which is especially important in the United States, since most Americans do not get enough fiber in their diets. Rye fiber is richly endowed with noncellulose polysaccharides, which have exceptionally high water-binding capacity and quickly give a feeling a fullness and satiety, making Rye bread a real help for anyone trying to lose weight. A cup of cream of Rye cereal provides 17.3% of the daily value for fiber.

Eating foods high in insoluble fiber, such as Rye, can help women avoid gallstones, shows a study published in the July 2004 issue of the *American Journal of Gastroenterology*.

Studying the overall fiber intake and types of fiber consumed over a 16 year period by 69,778 women in the Nurses Health Study, researchers found that those consuming the most fiber overall (both soluble and insoluble) had a 13% lower risk of developing gallstones compared to women consuming the fewest fiber-rich foods.

Those eating the most foods rich in insoluble fiber gained even more protection against gallstones: a 17% lower risk compared to women eating the least. And the

protection was dose-related; a 5-gram increase in insoluble fiber intake dropped risk dropped 10%.

Rye bread may be a better choice than wheat bread for persons with diabetes. A study published in the November 2003 issue of the *American Journal of Clinical Nutrition* found that bread made from wheat triggers a greater insulin response than Rye bread does. Finnish researchers at the University of Kupio compared the effects of eating refined wheat bread with endosperm Rye bread, traditional Rye bread and high fiber Rye bread on several markers of blood sugar control including plasma glucose, insulin, glucose-dependent insulinotropic polypeptide (GIP), glucagon-like peptide 1 (GLP1), and serum C-peptide in 19 healthy post-menopausal women. (GIP and GLP1 are incretin hormones secreted within the gastrointestinal tract during meals that boost the effects of insulin; c-peptide is a marker of insulin secretion.) All of these markers were evaluated in blood samples taken both before and after the women ate each of the breads. Results showed that after the women had eaten any of the Rye breads, their insulin, GIP and C-peptide responses were significantly lower than after they ate wheat bread. Among the different Rye breads, however, no significant differences were seen in insulin and C-peptide response despite their varying levels of fiber. Researchers felt this lower after-meal insulin response could, therefore, not be attributed only to the fiber content of the Rye breads, but was also due to the fact that the starch granules in Rye bread form a less porous and mechanically firmer matrix than in wheat bread. This would translate into a much greater particle size being swallowed when Rye bread is eaten compared to wheat, which would slow the rate at which the starch could be digested into sugar.

In addition to its usefulness in weight reduction, fiber, like that found in Rye, has

been shown to be useful for a number of different conditions. One of the most important properties of fiber is its ability to bind to toxins in the colon and then remove them from the body. When it binds to cancer-causing chemicals, fiber helps protect the cells of the colon from damage. This is one reason why a high-fiber diet has been shown to prevent colon cancer. When fiber binds to bile salts in the intestines





and removes them from the body, the body is forced to make more bile salts. This is good, because the body must break down cholesterol to make bile. This explains why a good intake of fiber can help to lower high cholesterol levels. Due to their high-fiber content, whole Rye foods can help to prevent high blood sugar levels in diabetic patients, thereby helping with blood sugar control. And adding fiber to the diet has been

shown to reduce the uncomfortable diarrhea or constipation experienced by people with irritable bowel syndrome.

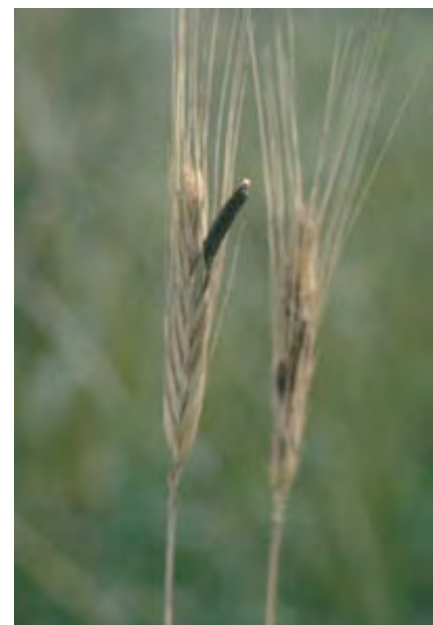
Rye is generally available pre-packaged as well as in bulk containers. Just as with any other food that you may purchase in the bulk section, make sure that the bins containing the Rye are covered and that the store has a good product turnover so as to ensure its maximal freshness. Whether purchasing Rye in bulk or in a packaged container, make sure that there's no evidence of moisture.

When shopping for Rye bread, make sure to read the labels since sometimes what is labeled "rye bread" is often wheat bread colored with caramel coloring.

Store Rye in an airtight container in a cool, dry and dark place where it will keep for several months.

Like all grains, before cooking Rye, rinse it thoroughly under running water and then remove any dirt or debris that you may find. After rinsing, add one part whole Rye to four parts boiling water along with a pinch of salt. After the liquid has returned to a boil, turn down the heat, cover and simmer for about one hour. If you want the texture to be softer, you can soak the Rye grains overnight and then cook them for two to three hours.

For a hot breakfast alternative to oatmeal, make a porridge using rolled Rye flakes. Cooked Rye berries



can be served as a side dish alternative to rice with a variety of different meals. For a change, make your favorite sandwiches on Rye bread instead of wheat bread, or substitute some Rye flour for wheat flour in your favorite pancake, muffin and bread recipes.

Rye is a member of a non-scientifically established grain group traditionally called the "gluten grains." The idea of grouping certain grains together under the label "gluten grains" has come into question in recent years, as technology has given food scientists a way to look closer at the composition of grains. Some healthcare practitioners continue to group wheat, oats, barley and Rye together under the heading of "gluten grains" and to ask for elimination of the entire group on a wheat-free diet. Other practitioners now treat wheat separately from these other grains, including Rye, based on recent research. Wheat is unquestionably a more common source of food reactions than any of the other "gluten grains", including Rye.



Although you may initially want to eliminate Rye from your meal planning if you're implementing a wheat-free regime, you'll want to experiment at some point with re-introduction of Rye to your diet. You may well be able to take advantage of its diverse nutritional benefits without experiencing an adverse reaction. Individuals with wheat-related conditions like celiac sprue or gluten-sensitive enteropathies should consult with their healthcare practitioner before experimenting with any of the "gluten grains".

History and Lore

Rye is one of the most recently domesticated cereal crops. Unlike some other cereal grains that can be traced back to prehistoric times, Rye was not cultivated until around 400 B.C., in Germany. Rye is thought to have originated from a wild species that grew as weeds among wheat and barley fields.

Unfortunately, ever since the times of the ancient Greeks and Romans, this nutrient-dense grain has not been widely enjoyed. In many countries, Rye seems to

have been relegated to a food for the poor, and as standards of living rose in varied civilizations, the consumption of Rye declined. Yet, in some food cultures, such as those of Scandinavian and Eastern European countries, Rye retains a very important position. Hopefully, as more and more people discover Rye's nutritional benefits and its unique taste profile, it will assume a more important role in our diets.

How does it work?

People have used Rye for thousands of years, but information on its health benefits based on documented scientific research has only really been available for the last ten years. Before that, Rye bread was seen simply as an inexpensive source of energy, minerals, and vitamins.

Rye continues to be the subject of numerous studies, with findings being reported in hundreds of scientific articles and tens and tens of dissertations. One of the latest of these, examined at the end of 2003, focused on the links between Rye bread in the diet and glucose and insulin levels in adults.

Interest in Rye fiber, or any other nutritional fiber come to that, was not much in evidence before the 1970s. Nutrition researchers only began to focus their attention on fiber after Denis Burkitt published his famous dietary fiber hypothesis in 1971.

1994 was a particularly important year for modern nutritional research on Rye, as it saw the signing of the joint Nordic "Rye and Health" research project, and the launch of a technology development program in Finland on Rye baking techniques.



The roots of the Rye and Health project go back to the 1993 conference of Nordic cereal chemists, and the decision taken there to establish a joint research project aimed at verifying the validity of the plant oestrogen hypothesis presented by Finland's Professor Adlercreutz. Those involved included university people from Finland and

Sweden and representatives from the Finnish and Swedish cereal industries, including Fazer.

As a hormone researcher, Professor Adlercreutz had discovered a number of previously unknown compounds in the urine of primates, and had initially believed they were hormones. It turned out, however, that the compounds concerned were food-derived lignans, which had been converted into enterolactone and enterodiol through colonic fermentation.

Adlercreutz also noticed early on that Rye is a significant source of lignans. Following on from this, he went on to formulate his plant oestrogen hypothesis. This postulates that Rye lignans are converted into slightly estrogenic compounds through bacterial fermentation in the colon, and that these compounds have a controlling effect on the development of hormone-induced cancers.

The Nordic research project successfully investigated the occurrence of lignans in different cereals, Rye varieties, and different parts of the grain, as well as the effect of processing on lignans and the conversion of lignans into enterolactone in the body.

Several epidemiological studies showed that a high serum enterolactone concentration correlates with a lower risk of breast cancer. It has also been established that a diet rich in Rye may reduce the risk of intestinal and prostate cancer. In 1997, the Rye and Health project demonstrated how a Rye bran diet could control the growth of prostate cancer. Other studies concluded that a Rye bran diet could have a controlling effect on the formation of certain types of intestinal cancer.

Today, we know that enterolactones are also the connecting factor between whole-grain Rye and lowering the risk of



cardiovascular disease. We know that the heart is healthier and the risk of strokes is smaller when blood contains large amounts of enterolactone.

While researchers have not yet been able to establish whether it's a question of a direct cause-and-effect relation, enterolactone is now generally regarded as a biomarker associated with a healthy diet.

Once definitive cause-and-effect relationships are established, these health benefits could become significant nutritional options for addressing the origin of a number of illnesses. It's probable, for example, that a diet containing a sufficient amount of whole-grain Rye bread can protect against cancer, cardiovascular disease, and Type 2 diabetes.

How does Rye help to prevent gallstones? Rye is rich in insoluble fiber, and researchers think insoluble fiber not only speeds intestinal transit time (how quickly food moves through the intestines), but reduces the secretion of bile acids (excessive amounts contribute to gallstone formation), increases insulin sensitivity and lowers triglycerides (blood fats). Abundant in all whole grains, insoluble fiber is also found in nuts and the edible skin of fruits and vegetables including tomatoes, cucumbers, many squash, apples, berries, and pears. In addition, beans provide insoluble as well as soluble fiber.



In many studies, eating whole grains, such as Rye, has been linked to protection against atherosclerosis, ischemic stroke, diabetes, insulin resistance, obesity, and premature death. A new study and accompanying editorial, published in the December 2004 issue of the *American Journal of Clinical Nutrition* explains the likely

reasons behind these findings and recommends at least three servings of whole grains should be eaten daily.

Whole grains are excellent sources of fiber. In this meta-analysis of seven studies including more than 150,000 persons, those whose diets provided the highest dietary fiber intake had a 29% lower risk of cardiovascular disease compared to those with the lowest fiber intake.

But it's not just fiber's ability to serve as a bulking agent that's responsible for its beneficial effects as a component of whole grains. Wheat bran, for example, which constitutes 15% of most whole-grain wheat kernels but is virtually non-existent in refined wheat flour, is rich in minerals, antioxidants, lignans, and other phytochemicals - as well as in fiber.

In addition to the matrix of nutrients in their dietary fibers, the whole-grain arsenal includes a wide variety of additional nutrients and phytochemicals that reduce the risk of cardiovascular disease. Compounds in whole grains that have cholesterol-lowering effects include polyunsaturated fatty acids, oligosaccharides, plant sterols and stanols, and saponins.

Whole grains are also important dietary sources of water-soluble, fat-soluble, and insoluble antioxidants. The long list of cereal antioxidants includes vitamin E, tocotrienols, selenium, phenolic acids, and phytic acid. These multifunctional antioxidants come in immediate-release to slow-release forms and thus are available throughout the gastrointestinal tract over a long period after being consumed.

The high antioxidant capacity of wheat bran is twenty-fold that of refined wheat flour (endosperm). Although the role of antioxidant supplements in protecting against cardiovascular disease has been questioned, prospective population studies consistently suggest that when consumed in whole foods, antioxidants are associated with significant protection against cardiovascular disease. Because free radical damage to cholesterol appears to contribute significantly to the development of atherosclerosis, the broad range of antioxidant activities from the phytochemicals





abundant in whole-grains is thought to play a strong role in their cardio-protective effects.

Like soybeans, whole grains are good sources of phytoestrogens, plant compounds that may affect blood cholesterol levels, blood vessel elasticity, bone metabolism, and many other cellular metabolic processes.

Whole grains are rich sources of lignans that are converted by the human gut to enterolactone and enterodiol. In studies of Finnish men, blood levels of enterolactone have been found to have an inverse relation not just to cardiovascular-related death, but to all causes of death, which suggests that the plant lignans in whole grains may play an important role in their protective effects.

Lower insulin levels may also contribute to the protective effects of whole grains. In many persons, the risks of atherosclerotic cardiovascular disease, diabetes, and obesity are linked to insulin resistance. Higher intakes of whole grains are associated with increased sensitivity to insulin in population studies and clinical trials. Why? Because whole grains improve insulin sensitivity by lowering the glycemic index of the diet while increasing its content of fiber, magnesium, and vitamin E.

Research reported at the American Institute for Cancer Research (AICR) International Conference on Food, Nutrition and Cancer, by Rui Hai Liu, M.D., Ph.D., and his colleagues at Cornell University shows that whole grains such as Rye contain many powerful phytonutrients whose activity has gone unrecognized because research methods have overlooked them.

Despite the fact that for years researchers have been measuring the antioxidant power of a wide array of phytochemicals, they have typically measured only the "free" forms of these substances, which dissolve quickly and are immediately absorbed into the

bloodstream. They have not looked at the "bound" forms, which are attached to the walls of plant cells and must be released by intestinal bacteria during digestion before they can be absorbed.

Phenolics, powerful antioxidants that work in multiple ways to prevent disease, are one major class of phytochemicals that have been widely studied. Included in this broad category are such compounds as quercetin, curcumin, ellagic acid, catechins, and many others that appear frequently in the health news.

When Dr. Liu and his colleagues measured the relative amounts of phenolics, and whether they were present in bound or free form, in common fruits and vegetables like apples, red grapes, broccoli and spinach, they found that phenolics in the "free" form averaged 76% of the total number of phenolics in these foods. In whole grains, however, "free" phenolics accounted for less than 1% of the total, while the remaining 99% were in "bound" form.

In his presentation, Dr. Liu explained that because researchers have examined whole grains with the same process used to measure antioxidants in vegetables and fruits - looking for their content of "free" phenolics" - the amount and activity of antioxidants in whole grains has been vastly underestimated.

Despite the differences in fruits', vegetables' and whole grains' content of "free" and "bound" phenolics, the total antioxidant activity in all three types of whole foods is similar, according to Dr. Liu's research. His team measured the antioxidant activity of various foods, assigning each a rating based on a formula (micromoles of



vitamin C equivalent per gram). Broccoli and spinach measured 80 and 81, respectively; apple and banana measured 98 and 65; and of the whole grains tested, corn measured 181, whole wheat 77, oats 75, and brown rice 56.

Dr. Liu's findings may help explain why studies have shown that populations eating diets high in fiber-rich whole grains consistently have lower risk for colon cancer, yet short-term clinical trials that have focused on fiber alone in lowering colon cancer risk, often to the point of giving subjects

isolated fiber supplements, yield inconsistent results. The explanation is most likely that these studies have not taken into account the interactive effects of all the nutrients in whole grains - not just their fiber, but also their many phytonutrients. As far as whole grains are concerned, Dr. Liu believes that the key to their powerful cancer-fighting potential is precisely their wholeness. A grain of whole wheat consists of three parts - its endosperm (starch), bran and germ. When wheat - or any whole grain - is refined, its bran and germ are removed. Although these two parts make up only 15-17% of the grain's weight, they contain 83% of its phenolics. Dr. Liu says his recent findings on the antioxidant content of whole grains reinforce the message that a variety of foods should be eaten good health. "Different plant foods have different phytochemicals," he said. "These substances go to different organs, tissues and cells, where they perform different functions. What your body needs to ward off disease is this synergistic effect - this teamwork - that is produced by eating a wide variety of plant foods, including whole grains."

One type of phytochemical especially abundant in whole grains such as Rye are plant lignans, which are converted by friendly flora in our intestines into mammalian lignans, including one called enterolactone that's thought to protect against breast and other hormone-dependent cancers as well as heart disease. In addition to whole grains, nuts, seeds and berries are rich sources of plant lignans, and vegetables, fruits, and beverages such as coffee, tea and wine also contain some. When blood levels of enterolactone were measured in 857 postmenopausal women in a Danish study published in the October 2004 issue of the *Journal of Nutrition*, women eating the most whole grains were found to have significantly higher blood levels of this protective lignan. Women who ate more cabbage and leafy vegetables also had higher enterolactone levels.

Another situation in which Rye may be helpful is menopause. Rye contains a type of *lignan* that has *phytoestrogenic* activity. In the body, phytoestrogens act a little like natural estrogens, and although their effect is much weaker, can help normalize estrogenic activity. For some women, the phytoestrogens in Rye are just strong enough to help prevent or reduce uncomfortable symptoms that may accompany menopause, like hot flashes, which are thought to be due to plummeting oestrogen levels. On the other hand, when too much oestrogen is around, Rye's

lignans, by occupying oestrogen receptors, block out the much more powerful human estrogens, causing a lowering in estrogenic activity, and providing potential protection against breast cancer.



SEVENTEEN

OATS



There are something like twenty-five cultivated varieties of Oats - a hardy cereal grain able to withstand poor soil conditions in which other crops are unable to thrive. Oats gain part of their distinctive flavor from the roasting process that they undergo after being harvested and cleaned. Although Oats are then hulled, this process does not strip away their bran and germ and allows them to retain all their fiber and nutrients. Usually consumed as porridge or gruel or some kind, in this form Oats are both easy to prepare and easy to digest.

What can it do for us?

Oats are one of the best remedies for feeding the nervous system, especially when under stress. Oats are considered what herbalists call a "specific" - an essential remedy - in cases of nervous debility and exhaustion when associated with depression or general debility, and can be used to strengthen the whole of the nervous system. The high levels of silicic acid in the straw is taken advantage of in its use as a remedy for skin conditions, especially in external applications. However, if you're suffering from gluten sensitivity (celiac disease), use Oats with caution. To make an infusion, pour a cup of boiling water to 1-3 teaspoonfuls of the dried straw and leave to infuse 10-15 minutes; drink three times a day.



A soothing bath for use in neuralgia and irritated skin conditions can be made from Oats. 1 pound of shredded straw is boiled in 2 quarts of water for half an hour. The liquid is strained and added to the bath, or the cooked rolled Oats may be put into a muslin bag and used to bath with.

History and Lore

In folk medicine, Oats were used to treat nervous exhaustion, insomnia, and "weakness of the nerves". A tea made from Oats was thought to be useful in rheumatic conditions and to treat water retention. Herbal supplements typically contain the more bushy tops of the plant, either when they're still green, or if they're quickly dried just prior to flowering. The seeds, or fruits, of Oats are contained in the green tops, and this is where any medicinal parts of the plant are derived. A tincture of the green tops of Oats was also used to help with withdrawal from tobacco addiction. Oats were often used in baths to treat insomnia and anxiety as well as a variety of skin conditions, including burns and eczema. Culpeper says:



"Oats fried with bay salt, and applied to the sides, take away the pains of stitches and wind in the sides or the belly. A poultice made of meal of oats, and some oil of Bays put thereunto, helps the itch and the leprosy, as also the fistulas of the fundament, and dissolves hard imposthumes. The meal of oats boiled with vinegar, and applied, takes away freckles and spots in the face, and other parts of the body."

How does it work?

Any medicinal qualities of Oats can be attributed to the seeds of the plant that contain chemicals called alkaloids (thought to account for the relaxing effect of oat supplementation) and saponins. The seeds are also rich in iron, manganese, and

zinc, and oat straw is high in silica. Its high fiber content is thought to contribute to the cholesterol-lowering effect of eating oatmeal on a regular basis.

The majority of scientific studies performed with Oats relate to their role in helping to lower blood cholesterol, particularly LDL ("bad") cholesterol. Oats, like psyllium (used in Metamucil and other laxatives) and pectin are all types of soluble fiber. In one study, after only three servings of oatmeal, levels of LDL cholesterol were decreased slightly. However, this effect was not different from the effect of either psyllium or pectin fibers. Other studies support the use of eating oatmeal for lowering cholesterol levels, particularly in individuals with high cholesterol. It's important to note that an overall healthy diet is required; oatmeal ingestion cannot counteract high intake of animal fats containing cholesterol.

Regarding Oats' traditional use (through soaking or impregnated soap) for soothing irritated or dry skin, scientific studies supporting this have not been well documented... but neither has eating chicken soup to combat a cold! Like many other remedies in this book, it can do no harm and has to be worth a try.



EIGHTEEN HERB LORE



Since ages past medicinal plants have been crucial in sustaining the health and the well being of mankind. Linseed, for example, provides its harvesters with a nutritious cooking oil, fuel, a cosmetic balm for the skin and fiber to make fabric. At the same time it was used to treat conditions such as bronchitis, respiratory catarrh, boils and a number of digestive problems.

Given the life-enhancing benefits that this and so many other plants conferred, until the 20th Century, every village and rural community had a wealth of herbal folklore. Tried and tested local plants were picked for a range of common health problems and taken as tea, applied as lotions or even mixed with lard and rubbed in as an ointment.

As they did not know the effects of the herbs, they used to watch the behavior of the animals. If it did not affect the animals in any way, then they too used to eat that particular root, leaf or berry. In this way they were able to find out more about herbs. Gradually, a folk understanding of the magical uses of herbs became a body of "resident knowledge". In the West, the following herbs, spices and minerals are said to have the following extra-medical properties:

Alderbark: Mix with chopped onion and carry when gambling.

Angelica Root: Carry to ward off Satan's forces and to prolong life.

Anise Seed: Burn or add to incense as an aid to meditation.

Bayberry: Where there's bayberry, there's good luck and money.

Benzoin: Mix with protection incense and burn to destroy evil forces.

Blessed Thistle: Boil and add to bath for many blessings.

Buckeye Leaf: Carry for good luck and to ward off rheumatism.

Calamus: Sniff to lessen sexual desire; hang around neck to prevent colds and flu; can be used in divinatory incenses.

Catnip: Anoint feet with tea to make one courageous.

Chamomile: Tea to relax and to wash hands with before playing games of chance.

Chewing John: Carry in pocket when looking for a job.

Comfrey Leaf: Stuff a green doll with this to draw money and luck.

Corn Flower: Sprinkle on right shoe when looking for a new lover.

Devil's Shoestring: Rub on hands to control any woman totally.

Dragon's Blood: Attracts good luck; used in uncrossing.

Eucalyptus: Wards off colds and protects one while sleeping.

Fennel Seed: Aphrodisiac.

Five Finger Grass: Allegedly wards off any evil that Five Fingers can do.

Frankincense & Myrrh: Summons spirits; used in sacred ointments, oils, and incense for protection, healing, spirituality, life, and peace of mind.

Goldenseal: Tea to purify blood; sprinkle in place of business to draw more money.

Guinea Pepper: Create strife in enemy's life. [Not recommended! The pagan rule is, what you put out comes back to you a hundredfold.]

High John Root: A powerful gambling charm for big winnings.

Hops: Place under pillow for restful sleep.

Jezebel Root: Others will be generous to one who carries this.

Kelp: Insures safety for sailors, seaman and all who travel.

Lady's Thumb: Love enters the doorway where this is strewn.

Laurel Leaves: Give to a Bride to promote a long and happy union.

Lavender: Wear near the heart to draw a lover near.

Lemon Grass: Tea for lustrous hair.

Linden Flower: Entices many lovers.

Lotus Root: Wear to bring pleasant thoughts and memories.

Low John, The Conqueror: Wrap in a bill to grow more money.

Mandrake: "Wonder of the World" root protects all from harm. [Mandrake has a human shape, as in the old rhyme from John Donne: "Go and catch a falling star / Get with child a mandrake root."]

May Apple: Carry in your wallet and you will never be broke.

Mojo Wish Bean: Carry for seven days to make a wish come true.

Mugwort: Aids in astral projection when placed near the bed. ["Moggy" was the main ingredient in witches' "flying ointment", which was rubbed on, and is a hallucinogen.]



Myrrh: Healing; protects and brings peace of mind.

Nutmeg: Always carry when gambling, for luck.

Orris Root: A love symbol carried to attract the opposite sex. [Like mandrake, it resembles a human form.]

Passion Flower: Strew around doorway to keep jealousy away.

Patchouli: Burn with commanding incense to break up affairs.

Raspberry: Carry to ease pains of pregnancy and childbirth.

Rosebuds and Petals: Wear near the heart to attract men.

Rosemary: Sprinkle for luck; wear to strengthen heart and mind.

Rowan Wood: Evil has no power over the home where this is kept.

Rue: For protection; brings love into the home.

Saltpeter: Takes away an individual's power. [Not recommended...!]

Sandalwood: Mix with any incense and burn for quick success.

Sassafras: Add to mojo bag for good luck.

Sea Salt: Purifies or clears energy; place on the face of a mirror on which you've put an image of a lover to force their return.

Skullcap: Women wear to keep mate safe from other's charms.

Slippery Elm: Sprinkle on a voodoo doll and bury to stop gossip.

Solomon's Seal: A pinch in all corners will exorcise evil spirits.

Spearmint: Stuff in a pillow or a mattress for protection while asleep.

Spikenard: Add a spoonful to any herb bath to enhance its effect.

Star Anise: Highly prized lucky talisman for mojo bag.

Sulfur: Burn outside door to drive away all evil influences.

Verbena: Passions rise quickly when this is nearby.

Vervain: Ancients believed this would make one's every wish come true.

Witch Hazel: Alleviates heartache; dulls passion and allays sorrow.

Wormwood: Burn with angel incense to remove hexes and curses.

Yarrow: Place under pillow and dream of one's true love.

Ancient Civilizations

For tens of thousands of years herbs were probably used much more for their magical powers than for their medicinal qualities. They had supernatural significance as well as medicinal value. (However, it should be noted that Hippocrates (460-377 B.C.), the Greek "Father of Modern Medicine", considered illness to be a natural rather than a supernatural phenomenon that needed to be treated without ritualistic ceremonies or magic; similarly, the ancient Chinese medical text, *The Yellow Emperor's Classic of Internal Medicine*, written in the 1st Century B.C., emphasized rational medicine.)

In some cultures, plants were considered to have souls. Even Aristotle, the 4th Century B.C. Greek philosopher, believed in it. In Hinduism, which dates back to at least 1,500 B.C., many plants are sacred to specific divinities. For example, the bael tree is said to shelter Shiva, the god of health, beneath its branches. In traditional Chinese medicine, qi is the primal energy that maintains life and health. In Ayurveda, it's prana, and in the Western tradition, Hippocrates writes about "vis medicatrix naturae" or the healing power of nature, while modern western medical herbalists and homeopaths use the term "vital force".

As civilizations grew from 3,000 B.C. onwards in Egypt, the Middle East, India and China, the use of herbs too became more sophisticated, and the first written accounts of medicinal plants were made.

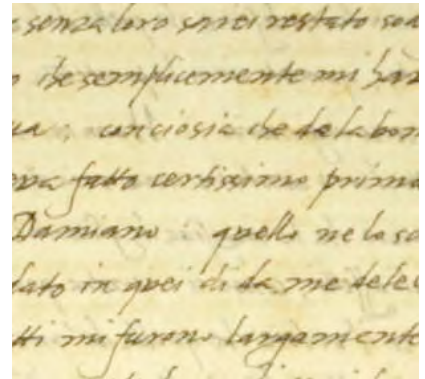
In India, the *Vedas*, epic poems written around 1,500 B.C., also contain rich material on the herbal lore of that time. The Vedas were followed in about 700 B.C.

by the *Charaka Samhita*, written by the physician Charaka. This medical treatise includes details of around 350 herbal medicines.

Herbal Medicines

As trade and interest in herbal medicines and spices flourished, various writers tried to make systematic records of plants with a known medicinal action and recorded their properties.

The Greek physician named Dioscorides wrote the first European herbal, *De Materia Medica*. His intention was to produce an accurate and authoritative work on herbal medicines.



Though European, Indian and Chinese systems differed widely, they all considered that imbalance within the constituent elements of the body is the cause of illness, and that the aim of the healer is to restore balance, often with the aid of herbal remedies.

Aristotle developed and endorsed the theory of the four humours. According to the theory, four principal fluids - or "humours" - exist within the body: blood, choler (yellow bile), melancholy (black bile) and phlegm. The "ideal person" bore all four in equal proportion. However, in most people, one or more humours predominate, giving rise to particular temperaments or characters.

Culpeper developed a medical system that blended astrology and sound personal experience of the therapeutic uses of local plants. His herbal became an instant bestseller and appeared in many subsequent editions. The first herbal published in North America, was an edition of this herbal.

While the popularity of the English Physician was notable, other herbals also found a place in households. The development of the printing press in the 15th Century brought herbal medicine into homes on a wide scale. Texts such as Dioscorides' *De Materia Medica* were printed for the first time, and ran through many editions.

The invention of printing in the 15th Century changed the face of herbal medicine in Europe. Before that time, European folk medicine had been handed down from generation to generation. While some early herbals were written in Anglo-Saxon, Icelandic and Welsh, for example, for the most part the tradition was orally based.

During the following centuries, herbals were published throughout Europe in different languages, making standardized catalogues of herbs and their applications accessible to the general public, not just to those who understood Latin. As literacy rates rose, women in particular used the advice in the herbals to treat their families.

Culpeper's new medical system was widely used as a practical reference book ever since its publication. It was a rich blend of personal and practical experience, traditional European medicine and astrological thought. Like Dioscorides' *De Materia Medica* it had the merit of being based on close observations and extensive experiences in the use of herbal medicines.

Trade routes had also slowly expanded during the Middle Ages, bringing exotic new herbs in their wake. From the 15th Century onwards, an explosion in trade led to a cornucopia of new herbs becoming readily available in Europe. They included plants such as ginger (*Zingiber officinale*), cardamom (*Elettaria cardamomum*), nutmeg (*Myristica fragrans*), turmeric (*Curcuma longa*), cinnamon (*Cinnamomum verum*) and senna (*Cassia senna*).

The trade in herbs was not entirely one way. The European herb Sage, for example, came into use in China where it was considered to be a valuable yin tonic.

The Humours

Hippocrates pioneered a natural approach to medicine based upon the natural cycle of the seasons, created by the relationship of the Earth to the Sun during its orbit of 365 1/4 days. Each season, he observed, led to a predominance of a particular humour in the body, in turn leading to preponderance of particular diseases at certain times in the year.

Elemental Sequence

The seasons were conceived as a sequence of the four Elements through the course of a year.

Spring is linked to the Air Element; summer is linked to the Fire Element; autumn is linked to the Earth Element and winter is linked to the Water Element, this sequence of change being brought about by the alteration of the primary qualities of hot, cold, wet and dry.

- **In the spring**, the coldness and moisture of Water is transformed into the heat and moisture of the Air Element by the increasing power of the Sun.
- **In the summer**, the heat and moisture of Air is transformed into the heat and dryness of the Fire Element by the Sun at its most powerful.
- **In the autumn**, the heat and dryness of the Fire is transformed into the coldness and dryness of the Earth Element, due to the decreasing power of the Sun.
- **In the winter**, the coldness and dryness of the Earth is transformed into the coldness and moisture of the Water Element, due the Sun being at its weakest.

This seasonal transformation of the Elements Hippocrates identified as being echoed in the strength of the constituent humours within the blood. Accordingly, the sanguine humour was seen to be most powerful at the vernal equinox, corresponding to the heat and moisture of the spring. By contrast the sanguine humour was seen to be weakest at the autumnal equinox, corresponding to the coldness and dryness of the autumn. Next the choleric humour was seen to be most powerful at the summer solstice, corresponding to the heat and dryness of the summer. By contrast the choleric humour was seen to be weakest at the winter solstice, corresponding to the coldness and moisture of the winter. Subsequently the melancholic humour was seen to be most powerful at the autumnal equinox, corresponding to the coldness and dryness of the autumn. By contrast the melancholic humour was seen to be weakest at the vernal equinox, corresponding to

the heat and moisture of the spring. Finally the phlegmatic humour was seen to be most powerful at the winter solstice, corresponding to the coldness and moisture of the winter. By contrast the phlegmatic humour was seen to be weakest at the summer solstice corresponding to the heat and dryness of the summer.

These ideas were directly incorporated into Culpeper's writing, as he explains in his *Pharmacopoeia Londonensis*:

'All time is measured out by motion, and that the original of all motion is the heavens. For it is the motion of the Sun which causeth Day and Night, Summer, Winter, Spring and Harvest From which conversion of times and years, all changes proceed, both heat and cold, dryness and moisture, by which four is caused life and death, generation and putrefaction, increase and decrease of elementary things.'

The word humour is derived directly from the Latin *humour* meaning "fluid, or liquid". The term encompasses not only the body fluids, such as blood, bile and lymph, but also the "Waters" of the psyche.

Humour as expressed in comedy is also included in the term. Jokes by invoking incongruent images in the mind cause a sudden release of emotional energy that truly reflects the spirit of the person. Such is the power of the emotional release that it can generate Watery physiological responses such as crying or urination in the body, as exemplified in the phrase "wetting oneself with laughter".

The objective of humoral physiology is to understand how the patient's vital force or spirit is manifesting by the way the body fluids are circulating in the body.

Humour and Temperament

The four humours are perceived within the blood using each of the four Elements in turn:

- The melancholic humour (Gk. *melanchole* = black bile) corresponds to Earth;
- The phlegmatic humour (Gk. *phlegma* = phlegm) corresponds to Water;

- The choleric humour (Gk. *chole* = bile) corresponds to Fire;
- The sanguine humour (L. *sanguineous* = bloody) corresponds to Air.

The Humours, with their Elemental Planetary Correspondences

Each humour has its own temperament in terms of hot, cold, wet and dry, and is traditionally ruled by different Planets, according to their sympathetic natures. For example, Jupiter is associated with the hot and moist, muggy atmosphere before a thunderstorm, so therefore rules the hot and moist sanguine humour. As already discussed, scientific medicine, in following a chemical definition of an element as a unit of material composition, has lost all sight of what is described by these powerful symbols.

Since humoral physiology is based upon the active perception by the physician of the Elemental symbols within the body's physiology, this materialistic definition of an element effectively blocked the perception of the humours.

The subsequent, exclusive pursuit of a purely physical basis to the body's physiology (explaining changes solely in terms of biochemistry) effectively caused an abrupt decline in humoral knowledge in Western medicine.

Once again medical propaganda has proclaimed this change as a triumph of science over the mumbo-jumbo of the past. However, since the basis of humoral physiology is essentially one of perception, there's absolutely no reason why humoral ideas cannot be considered along side biochemical physiology. In fact, when the two disciplines are juxtaposed, further fascinating insights into both are generated which essentially puts the spirit back into medicine. This knowledge can train physicians and therapists to be more sympathetic to patients' needs and shows how mental and emotional experience affects their diseases. It offers solutions to treating illness other than the purely physical. It helps patients to regain responsibility for their own health and illness. Finally and most importantly, it enhances the healing process.

Humoural physiology may at the outset seem very naive and simplistic; however, deriving from a two thousand year tradition, it has a depth and subtlety linking mind to body that modern biochemical medicine is desperately in need of.

The Temperament

The particular humoural composition of a person was called temperament, from the Latin *temperare* meaning "to mingle or mix in due proportion". In health, the balance or temper of the humours allows the vital force to flow freely through the body. This harmonious flow of the vital force is accompanied by an inner clarity, peace and harmony.

The Relative Strengths of the Humours through the Seasons

The Restoration of Temper

In disease this harmonious temper is lost. When a particular humour predominates over the others it causes a characteristic distemper. The humour is identified by the symptoms produced, whether they were hot or cold, dry or moist. The common cold is classically a phlegmatic condition, which should more accurately be diagnosed as a cold and moist!

The therapeutic objective is to counteract the predominating humour and restore temper. To illustrate this point, imagine a fever. Fever is classically a hot and dry condition. From the various symptoms it can be visualized as a fire burning within the patient. The medical term for fever is pyrexia, coming from the Greek *pyros* meaning "fire". The increase in metabolic rate causes a dramatic increase in body temperature and subsequent water loss through perspiration, clearly demonstrating its hot and dry nature. The heart, linked with choleric humour, markedly increases in rate. Like surging flames, the body is restless and the mind delirious. The skin may develop red rashes or spots. To counteract this fiery choleric condition, medicines of a cooling, moistening and watery nature are needed. One such herb with an ancient reputation for dealing with fever is willow.

How Ancient Herbalists Viewed Plants



Let us consider Willow as an example, but first, it's necessary to see how the ancient herbalists viewed plants. Just as the material world was seen to embody a subtler immaterial realm, so too each herbs contained a subtle essence called its virtue. The virtue corresponds to the plant's vitality, which resides in the sap, another watery realm homologous to the humoural ideas. Planetary rulers have

been ascribed to each plant enabling their virtues and medicinal uses to be understood. The allocation of Planetary rulership was done by careful observation of the plant's form, structure and the type of habitat the plant it chose to grow in.

The willow for thousands of years has been connected to the Moon. In classical times the willow was sacred to the Moon goddess, while Culpeper cryptically mentions "The Moon owns it". The willow's lunar nature becomes obvious when the tree is seen growing next to streams, rivers and lakes, particularly with its branches leaning into the water. Additionally the underside of the leaves have a silvery luster, silver being the color and the metal traditionally associated with the Moon.

The Moon is a cold and moist Planet with a particular affinity with the Water Element. In humoural terms, this Lunar tree has an affinity with the cold, moist phlegmatic humour in the body. The herb can be seen to be antipathetic to the hot and dry choleric humour; hence its particular reputation for dealing with fevers. The willow being a source of salicylates, which in a slightly different form is found as the drug Aspirin, confirms these symbolic ideas. Amongst a range of pharmacological actions, salicylates dramatically counteract fever by increasing perspiration. Heat is lost from the body in the evaporation of sweat from the skin; sweat being one aspect of the phlegmatic humour. By stimulating the phlegmatic humour, the Fire of the fever is extinguished, restoring balance to the humours so that health returns.

The Willow, from Gerard's Herball, 1633

The principles upon which humoral physiology are based are thus highly relevant to the perceptive skill of a physician or therapist. They put the diagnostic skill back into the hands of the healer, rather making a patient rely on the results of tests. The modern histiopathological classification of disease is predominantly materialistic in its approach and may actually prevent the healing of the patient, since it inherently denies how the subjective state of the patient has anything to do with the disease.

Humoral physiology, by training the physician to look at illness in terms of manifestation of the vital force and seeking what is needed to restore the flow of vital force, is much more likely to restore a patient to health, even if the exact pathology is unable to be ascertained. Where more and more the diagnosis of patients is delegated to laboratory tests, leaving doctors in a sort of therapeutic vacuum - where they're unable to do anything to help the patient till the results are known - the use of humoral physiology once again may considerably enhance their rapport with patients, their therapeutic potential and restore patients confidence in them as healers. When the principles of humoral physiology are correctly understood, they're never out of date. There's no reason why humoral ideas cannot be utilized alongside biochemical ideas. Indeed the therapeutic potential from a marriage between the two is enormous.

The sanguine humour is the principal humour of the blood, which embodies the other three humours, the choleric, melancholic and phlegmatic within it. The sanguine humour is perceived with the Air Element and is synonymous with the totality of the blood. Since the blood and the Air Element are both hot and moist, this where the symbolic connection is made. Air is unique amongst the four Elements, since it's the only one of the four gross Elements that's able to embrace the other three equally. Similarly the sanguine humour embraces the other three humours. In a state of health the choleric, melancholic and phlegmatic humours are indistinguishable within the sanguine humour. They only become manifest when disease occurs.

This is simply demonstrated by a bruise. Following trauma to the tissues of the body, the damaged cells cause a localized swelling in which blood pools in the vicinity of the injury. This increased blood flow brings the extra materials needed to rebuild new tissue and helps get rid of the waste from damaged cells.

The Humours, with their Descriptions & Physiological Correspondences

This immediate phase of the inflammatory response involves the sanguine humour, which initially is a benign protective mechanism.

Next the red blood cells that have saturated the swollen area lose their oxygen; and in so doing their hemoglobin, the pigment that carries the oxygen, changes color from a bright to a dark red. Through the skin this appears as a black coloration that causes the distinctive appearance of a bruise. This subsequent phase of the inflammatory response involves the melancholic humour or black bile. This is when the damaged cells die and are broken down.

Following this, the de-oxygenated red blood cells are also broken down, releasing the yellow bile pigments formed from the destruction of the hemoglobin. This causes the bruise to turn briefly to a pale yellow. This ensuing phase of the inflammatory response involves the choleric humour or yellow bile, which is when the new cells grow to replace those destroyed in the injury.

Finally, once the new tissues have been regenerated, a slight residual swelling remains, that has no distinctive color. This is when the last of the waste products is removed from the area, allowing the injured part of the body to return to normal. This concluding phase of the inflammatory response involves the phlegmatic humour.

Jupiter Rules the Sanguine Humour

Jupiter is the Planetary ruler of the sanguine humour. The seat of the sanguine humour is the liver, which is responsible for maintaining the balance of the humours in the blood. Modern physiology recognizes that the function of the liver is precisely reflected in the biochemical composition of the blood.

Jupiter in ruling the liver - the largest organ in the body - ensures that the sanguine humour is properly composed of its three constituent humours, so facilitating the flow of the vital force through the body and maintaining health. Jupiter can also be seen as mediating between the spiritual and material realms, maintaining the psyche within the body.

Jupiter also traditionally rules the lungs. With each inspiration the chest expands, air flows into the lungs and diffuses into the blood. The condensation of the hot and moist air onto a mirror or plate of glass held in front of the nose is a clinical sign of life. No condensation occurs when the body is dead.

In contemporary hematology, the sanguine humour can be equated with the complete composition of the blood. The principal role of the blood is the transportation of the respiratory gases (Air) and nutriments to the tissues. The importance of this function is highlighted by the brain cells dying in a matter of minutes if deprived of oxygen. Culpeper states the balance of the sanguine humour "nourishes the judgement". In humoral physiology the word sanguine is synonymous with health.

The Choleric Humour

The choleric humour is perceived by the Fire Element. The Fire Element in general symbolizes energy, dynamism and expression, and is associated with the color red, which correlates to the choleric humour, dynamic and expressive component of the blood. Culpeper defines the choleric humour as "the spume and froth of the blood" and with this image it's possible to visualize the turbulence and activity of the blood as it circulates around the body.

Normally when taking one's blood pressure, listening with a stethoscope at the brachial artery at the elbow, the spurting sound of the blood is clearly heard. In moments of panic it's possible to hear the beating of one's own heart. These sounds are caused by the blood cells brushing against the side of the blood vessels as they're propelled by the beating heart. As the red blood cells are the most abundant cells in the blood, they principally generate this sound. Their red color in

particular links them to the Fire Element. Physiologically their function is to carry the respiratory gases between the lungs and all the other cells in the body. This role enables the tissues to respire and generate energy. Psychologically, Fire symbolizes a person's drive, motivation, creativity, strength and ambition, while physiologically, tissue respiration is how the body generates energy.

Tissue respiration predominantly occurs in the liver and muscles where the main heat of the body is produced. During physical exercise, when muscular contractions burn up a lot of glucose, the increased heat that's generated causes water loss through perspiration, leading to a powerful thirst, this being a direct reflection of the hot and dry nature of the choleric humour. With the connection of the Fire Element to the muscles, the pumping action of the heart - a muscular organ - contributes to the force behind the "spume and froth of the blood". As a further correspondence with the Fire Element, circulation of the blood increases during exercise.

Mars Rules the Choleric Humour

The choleric humour is ruled principally by the hot and dry Planet Mars. Iron is the metal traditionally connected to Mars, since it's used to make weapons such as knives, swords and spears. Physiologically, iron is included within hemoglobin, the carrier molecule inside the red blood cells that transports the oxygen to the tissues. When oxygen combines with hemoglobin forming oxyhaemoglobin, the blood changes color from a dull to a bright red. All these ideas are particularly highlighted when iron deficiency occurs in the body, leading to a shortage of red blood cells. This is a condition called anemia where inadequate amounts of oxygen reach the cells and consequently very little energy is generated in the body. The patient is tired and lethargic and becomes easily breathless after only mild exertion. Without energy, the body's resistance falls, leading to increased risks of infection since it's unable to fight back. Often they will complain of feeling cold through inadequate generation of body heat. The shortage of red blood cells leads to a characteristic, pallid complexion. The pulse in anemia is notably rapid, which is a compensatory symptom, for as the blood less efficiently transports oxygen to the cells, the heart beats faster to pump the blood more rapidly around the body. The Sun traditionally rules the heart and is the hot and dry co-ruler of the

choleric humour The Sun symbolizes the source of vitality in a person. When the anemia becomes life threatening, the patient's heart compensates to keep them alive.

The seat of the choleric humour or yellow bile is the gall (bladder), a muscular sac-like organ that stores and subsequently expels the bile into the duodenum during digestion. Biochemically, the yellow color of the bile is caused by pigments present, formed by the destruction of hemoglobin molecules, when the effete red blood cells are broken down in the liver and spleen.

Culpeper explains that the choleric humour "...clarifies all the humours, and heats the body". Not only does Culpeper link the humour to the heat in the body, but also sees the heat of a fever as clarifying the blood of impurities. Furthermore he states that the choleric humour "nourishes the apprehension while moves man to activity and valour".

The Phlegmatic Humour

The phlegmatic humour corresponds to the Water Element. As Culpeper explains:

"It makes the body slippery, fit for ejection; it fortifies the brain by its consimilitude with it; yet it spoils apprehension by its antipathy to it: it qualifies choler, cools and moistens the heart, thereby sustaining it, and the whole body from the fiery effects, which the continual motion would produce."

Since Water is the Element that joins things together, the phlegmatic humour can be identified with the blood plasma, the fluid medium of the blood, largely consisting of water in which the blood cells circulate. The phlegmatic humour also encompasses lymph, sweat, mucus, cerebrospinal fluid, synovial fluid and the vitreous and aqueous humours of the eye. All of these secretions are generally formed from the plasma, as the blood perfuses the tissues of the body.

The Moon and Venus Rule the Phlegmatic Humour

The cold and moist phlegmatic humour is co-ruled by the Moon and Venus. The Moon particularly rules the ventricles of the brain, hence the idea of the phlegmatic humour fortifying the brain by "its consimilitude with it". The Watery nature of the phlegmatic humour counteracts the Fiery nature of the choleric humour, as demonstrated by an increase of perspiration cooling down the body in a fever, hence Culpeper's description of the phlegmatic humour "qualifying choler". Apprehension is an association of the choleric humour.

The Melancholic Humour

Melancholic humour corresponds to the Earth Element, which Culpeper defines as "the sediment of blood". Since Earth is the Element of precipitation, the melancholic humour can be identified with the plasma proteins that contribute to blood's viscosity, that have a particular role in its clotting mechanism. The clotting mechanism is important for stopping the loss of blood from the body when wounded or injured.

Saturn Rules the Melancholic Humour

The cold and dry melancholic humour is ruled by Saturn.

There are times when the clotting mechanism produces blood clots or thrombi within the blood vessels with drastic consequences. The thrombus passes through the blood vessels until it becomes blocked by the narrowness of a vessel. There it becomes lodged, preventing the blood from reaching the tissues the vessel supplies. These tissues then die, causing subsequent loss of function to the body. If a thrombus lodges in the arterioles of the brain, it frequently causes paralysis or loss of mental function. If a thrombus lodges in one of the arteries of the heart, a heart attack results. Not infrequently a thrombus will be the cause of death. Saturn is mythologically the Lord of Death.

The melancholic humour is associated with the passage of fecal material from the body. This idea comes from melaena (Gk. *melaina* = black bile), a symptom of

bleeding from the upper digestive tract, where the partially digested blood forms characteristic black tar-like stools. Culpeper describes the melancholic humour as: "fortifying the ... memory; makes men sober, solid, and staid, fit for study; stays the unbridled toys of lustful blood, stays the wandering thoughts, and reduces them home to centre."

A predominance of the melancholic humour is linked with depression and constipation. Depression further slows down heart rate and blood circulation, predisposing the blood to thrombus formation.

Herb Lore in our Own Time

The reader will have doubtless noticed that among the herbs we have looked at in this book are "Parsley, Sage, Rosemary and Thyme" as made famous by the antiwar song by Simon and Garfunkel. Their version interwove an old folksong (with a notable change) with a "canticle" of their own devising:

Are you going to Scarborough Fair?
Parsley, sage, rosemary, and thyme
Remember me to one who lives there
She once was a true love of mine

Tell her to make me a cambric shirt
(On the side of a hill in the deep forest green)
Parsley, sage, rosemary, and thyme
(Tracing a sparrow on snow-crested ground)
Without no seams nor needlework
(Blankets and bedclothes the child of the mountain)
Then she'll be a true love of mine
(Sleeps unaware of the clarion call)

Tell her to find me an acre of land
(On the side of a hill, a sprinkling of leaves)
Parsley, sage, rosemary, and thyme
(Washes the ground with so many tears)

Between the salt water and the sea strand
 (A soldier cleans and polishes a gun)
 Then she'll be a true love of mine
 Tell her to reap it in a sickle of leather
 (War bellows, blazing in scarlet battalions)
 Parsley, sage, rosemary, and thyme
 (Generals order their soldiers to kill)
 And to gather it all in a bunch of heather
 (And to fight for a cause they've long ago forgotten)
 Then she'll be a true love of mine

Are you going to Scarborough Fair?
 Parsley, sage, rosemary, and thyme
 Remember me to one who lives there
 She once was a true love of mine.



The original folksong, from which this favorite tune of my childhood was derived is "Scarborough Fair", whose lyrics ran "savory sage rosemary and thyme", savory being known to "strengthen the mind when carried or worn".

Formerly, until the 18th Century, people didn't usually take credit for songs or other works of art they made, so the writer of Scarborough Fair is unknown. The song is believed to have originated in the 16th or 17th Century, and may have been adapted from an older ballad entitled "The Elfin Knight" (Child Ballad No. 2). As bards (or shapers, as they were known in medieval England) carried the song from one town to the next it was adapted, modified, and rewritten to the point that dozens of verses exist for the song, although only a few are typically sung who went from town to town, and as they heard the song and took it with them to another town, the lyrics and arrangements changed. This is why today there are many versions of Scarborough Fair, and there are dozens of ways in which the words have been written down.

Henry III established a fair at Scarborough, a coastal town in North-East England, by charter in 1235 and it was held in the town until 1926 and is now only remembered in the famous folk song. Scarborough Fair was not a fair as we know it

today (although it attracted jesters and jugglers) but a huge forty-five day trading event, starting on the 15th of August, which was exceptionally long for a fair in those days. People from all over England, and even some from the continent, came to Scarborough to do their business.

As eventually the harbor started to decline, so did the fair, and Scarborough is a quiet, small town now. Scarborough's development as a holiday resort began in 1620 when spa water was discovered by Elizabeth Farrow, who claimed that the water had beneficial qualities. She was perhaps influenced by the success of the spa at nearby Harrogate. The gentry flocked to Scarborough to sample the qualities of the water's qualities and Scarborough's development as a resort began, given an extra boost by the development of the railways in the 1850s and culminating in the growth of the busy coastal town with all its amusements and fun fairs familiar today. Visitors to Scarborough's healthy resort included Anne Bronte, who retired there and died on 28th May 1849. She is buried in the churchyard of Scarborough's St Mary's Church.

The herbs parsley, sage, rosemary and thyme, recurring in the second line of each stanza in the Simon and Garfunkel version, make up for a key motive in the song. Although meaningless to most people today, these herbs spoke to the imagination of medieval people as much as red roses do to us today. Without any connotation necessary, they symbolize virtues the singer wishes his true love and himself to have, in order to make it possible for her to come back again.

Parsley

Parsley is still prescribed by phytotherapists today to people who suffer from bad digestion. Eating a leaf of parsley with a meal makes the digestion of heavy vegetables such as spinach a lot easier. It was said to take away the bitterness, and medieval doctors took this in a spiritual sense as well.

Sage

Sage has been known to symbolize strength for thousands of years.

Rosemary

Rosemary represents faithfulness, love and remembrance. Ancient Greek lovers used to give rosemary to their ladies, and the custom of a bride wearing twigs of rosemary in her hair is still practiced in England and several other European countries today. The herb also stands for sensibility and prudence. Ancient Roman doctors recommended putting a small bag of rosemary leaves under the pillow of someone who had to perform a difficult mental task, such as an exam. Rosemary is associated with feminine love, because it's very strong and tough, although it grows slowly.

Thyme

According to legend, the king of fairies dances in the wild thyme with all of the fairies on Midsummer Night; that's the best known legendary appearance of the herb. But the reason Thyme is mentioned here is that it symbolizes courage. At the time this song was written, knights used to wear images of thyme in their shields when they went to combat, which their ladies embroidered in them as a symbol of their courage.

This makes it clear what the disappointed lover means to say by mentioning these herbs. He wishes his true love mildness to soothe the bitterness which is between them, strength to stand firm in the time of their being apart from each other, faithfulness to stay with him during this period of loneliness and paradoxically courage to fulfill her impossible tasks and to come back to him by the time she can.

As an antiwar song, it was thus, particularly effective. Growing out of the folk movement that began with Pete Seeger and the Almanac Singers in the 40s and The Weavers in the 50s, and burst upon the national scene with the advent of the Kingston Trio in 1958, the burgeoning "back to earth" movement, which included a pacifistic world view resonated with audiences who could look to neither Hollywood, television or radio for the kind of art that would help them process the emotions brought on by the deepening war in Vietnam and the social upheaval of the Civil Rights movement.

Seeger himself was an old hand at protest through folk music. After nearly a decade of working underground after being blackballed during the McCarthy era, by the time of his famous Carnegie Hall concert in 1963, Seeger was an experienced pro at using folk music to achieve a dramatic transformation in his audiences. Without working from a set list, he naturally and effortlessly combined children's songs, civil rights hymns and spirituals, folk songs from various countries. Old songs were giving voice to a generation seeking a different way of being in the world. As John Denver sang, in his 1969 Rhymes and Reasons: "Come and stand beside us / We can find a better way." The Military-Industrial Complex had, as Eisenhower warned in his final speech of office, gone too far.

But this spirit of protest through ways of living was not new to Western society. In England, we can trace the tendency back at least as far as the Jacobites, the Puritan religious sect founded by Henry Jacob (1563-1624). In 1622, Henry Jacob left Southwark for the American Colonies with some of his congregation. He established a religious community at Jacobopolis in the Virginia Colony. The emigration continued in the 1630s and into the 1640s when the Puritan reformers had their greatest advocate in Oliver Cromwell. But that was a two edged sword, for Cromwell was ruthless, too. He put down civil revolts in Ireland and Scotland in ways that were particularly gruesome.

After the evils of the "dark Satanic mills" of the Industrial Revolution were fully realized, in 1900 the following was written by a Yorkshireman, F. W. Moorman:

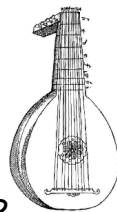
'We are justly proud of the Renaissance and of the glories of our Elizabethan literature, but let us frankly own that in the annals of poetry there was loss as well as gain. The gain was for the courtier and the scholar, and for all those who, in the centuries that followed the Renaissance, have been able, by means of education, to enter into the courtier's and scholar's inheritance. The loss has been for the people... The folk-song gathered power and sweetness all through the 17th and 18th Centuries, till it culminated at last in the lyric of Burns. Popular drama, never firmly rooted in Scotland, was stamped out by the Reformation, but the popular ballad outlived the mediaeval



minstrel, was kept alive in the homes of Lowland farmers and shepherds, and called into being the great ballad revival of the 19th Century.

'There are at the present time clear signs of a revival of popular poetry and popular drama. The verse tales of Masefield and Gibson, the lyrics of Patrick MacGill, the peasant or artisan plays which have been produced at the Abbey Theatre, Dublin, and the Gaiety Theatre, Manchester, may well be the beginning of a great democratic literary movement. Democracy, in its striving after a richer and fuller life for the people of England, is at last turning its attention to literature and art. It is slowly realizing two great truths. The first is that literature may be used as a mighty weapon in the furtherance of political justice and social reform, and that the piper of folk-song has the power to rouse the nation and charm the ears of even the Mother of Parliaments. The second is that the working man needs something more to sustain him than bread and the franchise and a fair day's wage for a fair day's work. Democracy, having obtained for the working man a place in the government of the nation, is now asserting his claim to a place in the temples of poetry. The Arthurian knight, the Renaissance courtier, the scholar and the wit must admit the twentieth century artisan to their circle. Piers the Ploughman must once more become the hero of song, and Saul Kane, the poacher, must find a place, alongside of Tiresias and Merlin, among the seers and mystics. Let democracy look to William Morris, poet, artist and social democrat, for inspiration and guidance, and take to heart the message of prophecy which he has left us: "If art, which is now sick, is to live and not die, it must in the future be of the people, for the people, by the people."

Amen. And this is where I came in, with the socialism and "power to the people" radicalism of Morris. He was self taught in everything that he did, including the revival of natural, herbal dyes. I found a model in him, a template, par excellence, of a "better way". His example fueled an enquiring mind with the exciting realization that it really was possible to create a better future for all people, beginning first with taking control of their own health by simple means. All this, because of a folksong about a bunch of herbs.



NINETEEN

HERBAL PREPARATIONS



When I learnt herbalism, way back in the Dark Ages of the 1970s, capsules were something you bought in bulk at the health food shop and filled with ascorbic acid powder or acidophilus; they were very rarely used for herbs because they were a major pain to fill by

hand. The sort of machines which fill hundreds at a go weren't generally available, and we regarded them with grave suspicion anyway. I was taught in the old way, to make tinctures, decoctions, fomentations and so on, with the herbal parts measured not by ounces - or, forfend, milligrams - but by the number of parts: for instance, One Part sage to Two Parts thyme, and so on, in proportional combination, so that any amount of the mixture necessary may be made.

So when capsules and milligrams became the *modus vivendi*, I was quite nonplussed as to how to respond to queries of "How many milligrams should I take of echinacea per day?" Somehow, "Beats the heck out of me" was not an acceptable answer. I learned, but I still prefer the old ways, for the following simple reason: dried powdered herbs such as are found in capsules aren't the most effective way to use herbs. In the first place, the powder itself is often old - and the greater surface area of powder means that the volatile oils are quickly dispersed in the air, rendering the herb next to useless. Secondly, when you consume capsules of powdered herb, the capsule doesn't dissolve until it reaches the stomach, and so the active properties aren't absorbed properly as the herb passes through the digestive tract. (Cayenne is a clear example: the digestive process should ideally start on the tongue!)

Some herbs' properties are best extracted by hot water, some by alcohol or vinegar, and some by a mixture of these. Roots and bark are particularly difficult to extract the active principles from by mere hot water and require maceration (crushing, chopping or pounding) before making into a decoction or tincture. As a general rule, the harder or woodier the herb or spice, the more preparation is required to render the active properties useful to the body.

There's also a question of the strength and palatability of the herb. Some herbs are really nasty tasting, though effective, and you want as concentrated a dose as possible; for instance, making a tincture of wormwood or valerian, where very little tincture is used per dose, is much preferable to a tea or decoction. Then there's the matter of getting the medicine to go down in the most effectual, if not delightful, way. For any sort of respiratory problem - or with children - if you can make a syrup or other agreeable concoction, half the problem is solved by the mere nature of the syrup, which is soothing, and will thus begin to ameliorate the problem whether it's a sore throat or catarrh... or a fractious child.

And, for those working with the elderly or otherwise infirm, poultices and fomentations, placed on the skin, are an excellent way of giving the benefit of herbs without placing stress or strain on the patient.

But, mostly, I make tinctures and decoctions, ointments and oils because that's what John Lust did, and Nicholas Culpeper before him. Four hundred years of "herbs bruised in wine" is quite a powerful statement to me of their efficacy. It puts the power back into the hands of the individual herbalist. I'm at the mercy of no corporation for a fad formula or form of herb. With simple or exotic ingredients, mixed as needed, taken in bulk from my own shelves, I'm as free as the limits of my knowledge, curiosity, and willingness to experiment allow. The following are presented in order of ease of preparation and commonality of use:

Teas

Home-made herbal teas are much more potent than store bought teas. Their flavor can be quite strong and sometimes



even unpleasant. To make a tea, boil 1 pint of water. Add 1 oz. (30 g) of dried herb tops (leaves, flowers, stems), and steep for 3 to 5 minutes.

Infusions

Infusion is a process of soaking herbs in water, and is the origin of the idea of witches' potion.

Hot Infusions

To make an infusion boil water. Add the boiled water to 1 teaspoon dried herb. Cover and let steep for 9-13 minutes, strain and cool. Infusions are drunk as teas, added to bath, rubbed into furniture and floors, and to anoint the body. Powdered bark, root, seeds, resin and bruised nuts, seeds, bark and buds may be used in hot infusions.

Cold infusions

Steep in cold water or cold milk for several hours. Wet, mashed herbs can be used internally as a tea or as poultices on body.

Waters

Steeped herbs, water, alcohol, steeped herbs plus honey, and other fruits are often called waters. Sometimes extracts or spirits of various herbs, such as lavender, are also called waters.

Decoctions

A decoction is the term used for herbs that have been simmered in water. This is the best method for drawing the healing elements from tough plant parts such as bark, roots, stems and heavy leaves. To make a decoction use 1 oz. (30 g) of dried herbs to 1 pint of water that has been brought to a boil. Keep water just below boiling for about 30 minutes and let herbs simmer. Simmering may take up to 1

hour, depending on plant used. A higher heat than infusions is necessary because of the toughness of the plant parts.

Decoctions should always be strained while hot, so that the matter that separates on cooling may be mixed again with the fluid by shaking when the remedy is used.

Use glass, ceramic or earthenware pots, or clean, unbroken enameled cast iron. Don't use plain cast iron with astringent plants.

Vinegars

Herbs that are soluble in alcohol are usually soluble in vinegar, and are useful for salad vinegars, cosmetic vinegars, some liniments and preventive sickroom "washes".



Tinctures

Tinctures are solutions of medicinal substances in alcohol or diluted alcohol.

To make a tincture, grind plant parts with mortar and pestle (or a blender). Add just enough high-quality vodka, whiskey or grain alcohol to cover the herbs. Let it sit for 21 days then add a small quantity of glycerin (about 2 tbs. per pint) and about 10% volume of spring water. Strain and store in airtight amber colored glass. If kept cool and dry it will last for up to 5 years.

Dose is usually 20 drops in a cup of tea or warm water, 4 times a day.

For a stronger tincture place herbs in a cone-shaped piece of parchment paper. Pass alcohol repeatedly through the powdered or cut herb. Catch the slow drippings in a jar. When it has passed once, you may use it, but the more you repeat the process, the stronger the tincture will be.

It's acceptable to dilute any alcohol tincture with water. Add 4 ounces of water and 1 teaspoon of glycerin for every pint of alcohol. The glycerin is optional, and is an additional preservative.

Non-alcoholic Tinctures

Alcohol is a near perfect preservative of plant attributes. If for some reason you wish to evaporate the alcohol, add the tincture dose to a cup of water then add 1/8 to 1/4 teaspoon of boiling water. Some herbs can be steeped in milk to make a milk tincture. Strain out the herbs, and store in a labeled jar in the fridge.

Extracts

Extracts are solid substances resulting from the evaporation of the solution of the active parts of the herb. The extract is obtained in three ways: by expressing the juice of fresh plants, by using a solvent such as alcohol, or simmering a plant tea and reducing it to a thickened state. The last is done by simmering a plant and by repeating the process until most of the water used has evaporated, making a decoction. This gives a distillation of the most active components in the plant. Add 1/4 teaspoon of alcohol (brandy, gin or vodka will do), glycerin, or tincture of benzoine to preserve the extract.

Fomentations



A fomentation is a strong herbal tea in which a clean cloth is dipped. The cloth can be filled with herbs. The cloth is then applied to the affected part.

Poultices

A poultice is a raw or mashed herb applied directly to the body, or applied wet directly to the body, or encased in a clean cloth and then applied. Poultices are used to heal bruises, putrid sores, soothe abrasions, or withdraw toxins from an area. They may be applied hot or cold, depending on the health need. Cold poultices (and compresses) are used to withdraw the heat from an inflamed or congested area. Use a hot poultice or compress to relax spasms and for some sources of pain.

To make a poultice, use fresh or dried herbs that have been soaked in boiling water until soft. Mix with enough slippery elm powder to make poultice stick together. Place on affected part then wrap body part and poultice with clean cloth.

Electuaries

When powders are mixed with syrup, honey, brown sugar, or glycerin to produce a more pleasant taste or to make them easier to use internally, they're called electuaries. These are rarely prepared in advance, but are done when needed. Different substances need different proportions of syrup. Light vegetable powders usually require twice their weight, gum resins 2/3 their weight, and mineral substances about half their weight.

If an electuary is made up in advance and it hardens, add more syrup. If it swells up and emits gas, merely beat it in a mortar.

Syrups

Medicinal syrups are formed when sugar is incorporated with vegetable infusions, decoctions, expressed juices, fermented liquors, or simple water solutions. Sometimes tinctures are added to a simple syrup, and the alcohol is evaporated. The tincture is sometimes combined with sugar and gently heated, or exposed to the sun until the alcohol is evaporated. The syrup is then prepared with the impregnated sugar and water. Refined sugar makes a clearer and more pleasantly flavored syrup. Any simple syrup can be preserved by substituting glycerin for a certain portion of the syrup. Always make syrups in small quantities.

To make a medicinal syrup, add 2 oz. (50 g) of dried herb with 1 quart (1 liter) water in a large pot. Boil down and reduce to 1 pint or half a liter, then add 1-2 tablespoons of raw honey. If you want to use fresh fruit, leaves, or roots in syrups, you should double the quantity of herbs. You can store a syrup in the fridge for up to a month. Honey-based syrups are a simple and effective way to preserve the healing qualities of herbs. Syrups can soothe sore throats and provide some relief from coughs.

Oils

Aromatic oils and rectified alcohol can be combined. The oils seep into the alcohol to produce an essence. Oils may be captured by evaporation from flower petals. Vegetable, nut, or fruit oils can be used as a medium for steeping aromatic plants to extract volatile oils. Aromatic oils can also be steeped in alcohol to extract essence.

To make an oil, pick your own fresh herbs or purchase dried herbs from a reputable source. Pack a large jar with the chosen herb and pour in any favorite monounsaturated or polyunsaturated oil. Use enough to cover the herb and close tightly. Label the jar and place in a sunny place for several weeks, then strain out the herb by pouring it through a cheesecloth into a fresh jar. Hold the cheesecloth over the opening of the jar containing the herbs and secure with a rubber band. Invert the jar and pour the infused oil through the cheesecloth. Before discarding the herbs, squeeze all the oil out of them. Now, repeat the entire procedure, repacking a clean jar with more of the same herb. Add the infused oil, plus enough additional oil to cover the herbs. Store again in sunlight, strain it again through the cheesecloth, and pour the oil into a labeled jar and store it until needed.

Ointments

An ointment is a soothing, healing, slightly oily or fatty substance into which the essence of a healing plant has been dissolved. This is done by heating the fat or oil with the plant until it loses its normal color and the oil or fat has absorbed the healing chemical principles. The plant is then strained out, and beeswax is added to harden the ointment. Preservatives such as drops of tincture of benzoin, poplar bud tincture, or glycerin are optional additions. If you make ointments in small batches and keep them tightly closed with paraffin wax, they don't decompose.

The traditional folk, herbal, and pharmaceutical base for ointments is pork lard. Purify it by simmering and straining. It has healing abilities even without the addition of herbs,



but so do a lot of fats and oils. It's said to have great drawing power.

Purified, liquefied anhydrous lanolin is also used as a base for ointments. Lanolin is the substance washed from the wool of sheep. It comes in many levels of purity, so the results vary depending on the product. This oil is the closest to skin oil.

Almond oil, cocoa butter, wheat germ, and vitamin E are neutral bases for ointments. If no other product is available, vaseline may be used, but is listed here only in case nothing else is at hand.

All ointments must contain one substance that will thicken the final product. Lanolin is a thickener, as is cocoa butter. Both are non sticky and mix well with most other oils. Other useful but sticky thickeners are glycerin, honey, or liquid lecithin. Also, various powdered resins and gum swell up and thicken when first soaked in cold water, then simmered in gently boiling water, and added to preparations. Agar-agar and Irish moss (carageenan) are seaweed thickeners. Green apples provide and excellent acid fruit pectin that's a good addition to creams and ointments.

While any of the above sticky and non-sticky thickeners will help swell a product and keep it emulsified, you'll still need some wax to harden a cold cream or ointment. Beeswax is perfect, although expensive, and may be combined with paraffin wax.



TWENTY

OTHER REMEDIES, GREAT AND SMALL

This book would not be complete without a compilation of further useful home remedies - some of which I've not used, but all of which are alleged to work well (some with devout adherents, as can be verified by a quick search on the internet). One or two are, let us say, rather unusual - but I urge open-mindedness. All of them are safe to try! And you may also experience real benefit.

1. Liver Flush

This home remedy definitely works: it's easy, harmless, non-toxic, cheap, and in many people produces an astonishing quantity of gallstones. Most people who try it just cannot believe what comes out! There are several versions with minor variations, but this one, given to the world by Dr Hulda Clark in her seminal book *Cure for all Diseases*¹, is well-attested. Her description is quoted verbatim:

* * * * *

Cleansing the liver of gallstones dramatically improves digestion, which is the basis of your whole health. You can expect your allergies to disappear, too, more with each cleanse you do! Incredibly, it also eliminates shoulder, upper arm, and upper back pain. You have more energy and increased sense of well being.

It is the job of the liver to make bile, 1 to 1.5 quarts in a day! The liver is full of tubes (biliary tubing) that deliver the bile to one large tube (the common bile duct). The gallbladder is attached to the common bile duct and acts as a storage

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reservoir. Eating fat or protein triggers the gallbladder to squeeze itself empty after about twenty minutes, and the stored bile finishes its trip down the common bile duct to the intestine.



For many persons, including children, the biliary tubing is choked with gallstones. Some develop allergies or hives but some have no symptoms. When the gallbladder is scanned or X-rayed nothing is seen. Typically, they are not in the gallbladder. Not only that, most are too small

and not calcified, a prerequisite for visibility on an X-ray. There are over half a dozen varieties of gallstones, most of which have cholesterol crystals in them. They can be black, red, white, green or tan colored. The green ones get their color from being coated with bile. Many have imbedded unidentified objects. Are they fluke remains? Many are shaped like corks with longitudinal grooves below the tops. We can visualize the blocked bile ducts from such shapes. Other stones are composites- made of many smaller ones- showing that they regrouped in the bile ducts some time after the last cleanse.

At the very center of each stone is found a clump of bacteria, according to scientists, suggesting a dead bit of parasite might have started the stone forming.

As the stones grow and become more numerous the back pressure on the liver causes it to make less bile. Imagine the situation if your garden hose had marbles in it. Much less water would flow, which in turn would decrease the ability of the hose to squirt out the marbles. With gallstones, much less cholesterol leaves the body, and cholesterol levels rise.

Gallstones, being porous, can pick up all the bacteria, cysts, viruses and parasites that are passing through the liver. In this way "nests" of infection are formed,

forever supplying the body with fresh bacteria. No stomach infection such as ulcers or intestinal bloating can be cured permanently without removing these gallstones from the liver.

Preparation:

- You can't clean a liver with living parasites in it. You won't get out many stones, and will feel quite sick. Zap daily the week before, or get through the first three weeks of the parasite killing program before attempting a liver cleanse. If you are on a parasite maintenance program, do a high dose program the week before.
- Completing the kidney cleanse before cleansing the liver is also recommended. You want your kidneys, bladder and urinary tract in top working condition so they can efficiently remove any undesirable substances incidentally absorbed from the intestine as the bile is being excreted.
- Do any dental work first, if possible. Your mouth should be metal free and bacteria free (cavitations are cleaned). A toxic mouth can put a heavy load on the liver, burdening it immediately after cleansing. Eliminate that problem first for best results.

Ingredients:

- 1/2 Cup Olive Oil, Extra Virgin
- 1 big grapefruit (2 small)
- 4 tablespoons Epsom Salts

Choose a day like Saturday for the cleanse, since you will be able to rest the next day.

Take no medicines, vitamins or pills that you can do without; they could prevent success. Stop the parasite program and kidney herbs too, the day before.

Eat a no-fat breakfast and lunch such as cooked cereal with fruit, fruit juice, bread and preserves or honey (no butter or milk), baked potato or other vegetables

with salt only. This allows the bile to build up and develop pressure in the liver. Higher pressure pushes out more stones.

2:00 PM. Do not eat or drink after 2 o'clock. If you break this rule you could feel quite ill later. Get your Epsom salts ready. Mix 4 tbs. in 3 cups water and pour this into a jar. This makes four servings, 3/4 (three fourths) cup each. Set the jar in the refrigerator to get ice cold (this is for convenience and taste only).

6:00 PM. Drink one serving 3/4 (three fourths cup) of the ice cold Epsom salts. If you did not prepare this ahead of time, mix 1 tbs. in 3/4 (three fourth) cup water now. You may add 1/8 (one eight) tsp. vitamin C powder to improve the taste. You may also drink a few mouthfuls of water afterwards or rinse your mouth. Get the olive oil (ozonated, if possible) and grapefruit out to warm up.

[**Alternative Schedule 1** (from Dr Clark's *The Cure For HIV and AIDS*, p.585): Omit the first Epsom Slats dose at 6 p.m. Take only one dose, waiting till 8 p.m. Change nothing else. Many people still get stones with one less dose. If you do not, do the full course next time.]

8:00 PM. Repeat by drinking another 3/4 (three fourths) cup of Epsom salts. You haven't eaten since two o'clock, but you won't feel hungry. Get your bedtime chores done. The timing is critical for success.

9:45 PM. Pour 1/2 (half) cup (measured) olive oil into the pint jar. Add 2 drops HCl to sterilize. Wash grapefruit twice in hot water and dry; squeeze by hand into the measuring cup. Remove pulp with fork. You should have at least 1/2 (half) cup, more (up to 3/4 (three fourths) cup) is best. You may use part lemonade. Add this to the olive oil. Also add Black Walnut Tincture. Close the jar tightly with the lid and shake hard until watery (only fresh grapefruit juice does this).

Now visit the bathroom one or more time, even if it makes you late for your ten o'clock drink. Don't be more than 15 minutes late. You will get fewer stones.

10:00 PM. Drink the potion you have mixed. Take 4 ornithine capsules with the first sips to make sure you will sleep through the night. Take 8 if you already suf-

fer from insomnia. Drinking through a large plastic straw helps it go down easier. You may use oil and vinegar salad dressing, or straight honey to chase it down between sips. Have these ready in a tablespoon on the kitchen counter. Take it all to your bedside if you want, but drink it standing up. Get it down within 5 minutes (fifteen minutes for very elderly or weak persons).

Lie down immediately. You might fail to get stones out if you don't. The sooner you lie down the more stones you will get out. Be ready for bed ahead of time. Don't clean up the kitchen. As soon as the drink is down walk to your bed and lie down flat on your back with your head up high on the pillow. Try to think about what is happening in the liver. Try to keep perfectly still for at least 20 minutes. You may feel a train of stones traveling along the bile ducts like marbles. There is no pain because the bile duct valves are open (thank you Epsom salts!). Go to sleep, you may fail to get stones out if you don't.

Next morning. Upon awakening take your third dose of Epsom salts. If you have indigestion or nausea wait until it is gone before drinking the Epsom salts. You may go back to bed. Don't take this potion before 6:00 am.

2 Hours Later. Take your fourth (the last) dose of Epsom salts. You may go back to bed again.

[**Alternative Schedule 2** (from Dr Clark's *The Cure For HIV and AIDS*, p.585): After taking the first dose of Epsom salts in the morning, wait two hours and take a second dose of the oil mixture (but only 1/2 cup) and go back to bed.]

After two more hours take another dose of Epsom salts. This schedule can increase the number of stones you remove.

After 2 More Hours you may eat. Start with fruit juice. Half an hour later eat fruit. One hour later you may eat regular food but keep it light. By supper you should feel recovered.

How well did you do?

Expect diarrhea in the morning.

Use a flashlight to look for gallstones in the toilet with the bowel movement.

Look for the green kind since this is proof that they are genuine gallstones, not food residue. Only bile from the liver is pea green. The bowel movement sinks but gallstones float because of the cholesterol inside.

Count them all roughly, whether tan or green. You will need to total 2,000 stones before the liver is clean enough to rid you of allergies or bursitis or upper back pains permanently. The first cleanse may rid you of them for a few days, but as the stones from the rear travel forward, they give you the same symptoms again. You may repeat cleanses at two week intervals. Never cleanse when you are ill.

Sometimes, the bile ducts are full of cholesterol crystals that did not form into round stones. They appear as a "chaff" floating on top of the toilet bowl water. It may be tan colored, harboring millions of tiny white crystals. cleansing this chaff is just as important as purging the stones.

How safe is the liver cleanse? It is very safe. My opinion is based on over 500 cases, including many persons in their seventies and eighties. None went to the hospital; none even reported pain. However it can make you feel quite ill for one or two days afterwards, although in every one of these cases the maintenance parasite program had been neglected. This is why the instructions direct you to complete the parasite and kidney rinse program first.

This procedure contradicts many modern medical viewpoints. Gallstones are thought to be formed in the gallbladder, not the liver. They are thought to be few, not thousands. They are not linked to pains other than gallbladder attacks. It is easy to understand why this thought: by the time you have acute pain attacks, some stones are in the gallbladder, are big enough and sufficiently calcified to see on X-ray, and have caused inflammation there. When the gallbladder is removed

the acute attacks are gone, but the bursitis and other pains and digestive problems remain.

* * * * *

My own comments on this:

This sounds complicated, but is actually very simple indeed. Judge for yourself - and read the book! - but the caveats about the need to complete a parasite cleanse and "zap" first (referring to the use of a small electronic device whose frequencies kill parasites in the body), do necessary dental treatment, take ornithine (to help one sleep), add Black Walnut Tincture to the olive oil, and so on, may not all be strictly necessary in order to flush out gallstones successfully. This complete set of instructions for a liver flush is a good introduction for anyone who wants to improve their health - or who is simply curious to find out what on earth is in there! (You're likely to be amazed.)

2. Kidney flush

This unlikely-sounding procedure is called the Appalachian Kidney Stone Flush.

Ingredients:

- 6 pack of Classic Coca Cola ®
- 1 lb of (ideally fresh) asparagus.

Directions: Drink 1 can (12 oz.) of Coke every 20 minutes (therefore taking two hours). Eat the steamed or boiled Asparagus, plus all the liquid (which you can blend together to make a soup), immediately after downing the last Coke.

Hang on to all fluids for as long as possible before eliminating; then drink a minimum of 64 oz./ 2 liters of pure filtered/distilled water throughout the next 24 hours.

Believe it or not, some dramatic successes have been reported with this remedy, which only costs a few dollars and couldn't really be simpler. A kind of "sludge" is often passed in the urine after the flush, which is the dissolved kidney stone(s). The magic ingredient which does the trick and dissolves the stones is said to be the phosphoric acid content of the Coke, but many adherents warn that it has to be Classic Coke and no other variety! Meanwhile, working in harness with this, asparagus is well-known for flushing *anything* out of the body. If you know your stone(s) to be large, or if you feel them move after the flush but not be fully dislodged or dissolved, then the flush can be repeated a day or two later. It has to be worth a try!

3. Miscellaneous...

These assorted home remedies are also cheap, easy, and can do no harm; furthermore, many are sworn to work well. A few, as you will see, have already been referenced earlier in this book.

- Aching muscles from a bout of flu: Mix 1 tablespoon of horseradish in a cup of olive oil. Let the mixture sit for 30 minutes, then apply it as massage oil, for instant relief for aching muscles.
- Insect stings: Apply a freshly-cut slice of raw onion to a sting to help draw out the poison. Hold the onion in place with tape.
- Athlete's foot: Use cornstarch
- Bee Stings: Relieve by applying a poultice of baking soda and water.
- Boils & Pimples: Add two tablespoons of lemon to a cup of freshly-boiled water. Soak, clean, and disinfect the area with a cotton ball.
- Burned tongue: Put sugar on it.
- Burns: to soothe burns, dab pure vanilla extract on to a cooking burn to keep it from blistering.
- Car or Air Sickness: Sucking on a wedge of lemon will make you feel better. But do rinse your mouth afterwards, as lemon corrodes tooth enamel.
- Chafed Skin: Gently pat a raw slice of potato over irritated nose, forehead, cheeks and chin. Rinse with cool water to close pores.

- Clean dentures by soaking them overnight in vinegar, then brush away the tartar with a toothbrush.
- Corns: Just before going to bed, slice off one end of a lemon so that the "hole" that remains is the size of a penny. Insert the toe with the corn into the lemon. Put a sock on your foot to keep the lemon in place and repeat nightly until the corn disappears.
- Cough: Roast a lemon or an onion until it breaks open, mix a teaspoon of warm lemon or onion juice with half a teaspoon of raw honey, and take every half hour until the cough goes away.
- Upset stomach: drink two teaspoons Apple Cider Vinegar in one cup water.
- Fatigue: Start running warm water into a bathtub, then add 1 - 1/2 cups ordinary table salt to the bath. Have the water warm, but not hot.
- Dandruff: pour on the Apple Cider Vinegar!
- Hemorrhoids: Dampen a cotton ball with lemon juice, then apply to the affected area.
- Hiccups: Suck a wedge of lemon doused with Worcester sauce.
- Skin blemishes: Cover the blemish with a dab of raw honey and place a band-aid over it. Raw honey kills the bacteria, keeps the skin sterile, and speeds healing.
- Hornet Stings: Wring out a towel in hot water and sprinkle a generous portion of meat tenderiser [papayin enzyme] on the towel. Apply directly to the sting, re-treating the towel every five minutes for about half an hour. The hot towel causes the pores of your skin to open, and the tenderiser neutralizes the venom. If you do this quickly enough after the hornet's bite, there's no pain or swelling.
- Lice: Mayonnaise will kill them. It will also condition your hair!
- Migraine Headache: Nibble on four or five feverfew leaves to relieve a migraine or any other kind of headache.
- Mosquito Bites: Dab toothpaste over your mosquito bites. Make sure the bite is covered completely, and leave it covered for half an hour before washing the toothpaste off in water. Repeat daily until the bite is gone.

- Poison Ivy: Apply a paste of 3 parts baking soda and 1 part water. Let dry, and then wash off. This also works on poison oak, sumac, or other skin irritations.
- To prevent yeast infections: Douche with one tablespoon Apple Cider Vinegar to one quart warm water; this adjusts the pH balance in the vagina.
- Arthritis pain: Mix 2 cups of instant oats and 1 cup of water in a bowl and warm in the microwave for 1 minute (or in a pan for a little longer!), cool slightly, and apply the mixture to your hands for soothing relief from arthritis pain.
- Quick treatment for a pimple: Dab toothpaste on it at night.
- Cough: Mix one-half cup Apple Cider Vinegar, one-half cup water, one teaspoon cayenne pepper, and four teaspoons raw honey.
- Sore Throat: Put a teaspoon of Apple Cider Vinegar in a glass of water. Gargle, and then swallow.
- Sore Throat: Mix 1/4 cup of Apple Cider Vinegar with 1/4 cup of raw honey and take 1 tablespoon six times a day. The Apple Cider Vinegar kills the bacteria.
- Sore Throat: Mix a tablespoon of raw honey and the juice of one lemon into a cup of warm water, and sip.
- Sunburn: Empty a large jar of Nestea into your bath water.
- Sunburn: To cool sunburn, dissolve 1/2 cup or more baking soda in a tub of lukewarm water.
- To diffuse a boil or pimple: Add two tablespoons of lemon to a cup of freshly-boiled water. Soak, clean, and disinfect the area with a cotton ball.
- Boil: Cover the boil with tomato paste as a compress. The acids from the tomatoes soothe the pain and bring the boil to a head.
- To bring a golden glow to your face, use cucumber and raw honey.
- Use bicarbonate of soda to brush your teeth - and whiten them.
- Bruises: Soak a cotton ball in white vinegar and apply it to the bruise for one hour. The vinegar reduces the blueness and speeds up the healing process.
- Apple Cider Vinegar: Cure for colds. Mix one-quarter cup Apple Cider Vinegar with one-quarter cup raw honey.

- Apple Cider Vinegar: Feel good recipe. A teaspoon of Apple Cider Vinegar in a glass of water, with a bit of raw honey added for flavor, will take the edge off your appetite and give you an overall healthy feeling.
- Apple Cider Vinegar: Guards against food poisoning.
- Apple Cider Vinegar: Helps fade age spots.
- Apple Cider Vinegar: Lifts painful corns and calluses.
- Apple Cider Vinegar: Prevents infections.
- Arthritis: Before each meal, drink a glass of water containing two teaspoons Apple Cider Vinegar. Give it at least three weeks to start working.
- Dry and itchy skin: Add 2 tablespoons of Apple Cider Vinegar to your bath water.
- Mosquito and other bug bites: Relieve itching by using a cotton ball to dab your bites with Apple Cider Vinegar straight from the bottle.
- Sunburn: Rub it lightly with Apple Cider Vinegar, and reapply if necessary.
- Headaches: Apple Cider Vinegar.
- Bee or jellyfish sting. Dot or douse the irritated area with Apple Cider Vinegar to relieve itching.
- Soothe tired aching feet with Apple Cider Vinegar.
- Hiccups: Take 1 tablespoon of Apple Cider Vinegar and swallow. It stops hiccups instantly...

ABOUT THE AUTHOR



I was born in 1963, just in time for the crafts revival of the back-to-earth movement of the 1970s, and my life has been steeped in these forces for forty years. My interest in crafts, herbs, and alternative business is organically grown: I come from a family big on self-sufficiency, with craftsmen and women going back several generations - carpenters, tailors, tinkers, they knew their way with farm implements, rope, handsaw, or needle-and-thread. Anything that could be made by hand or needed fixing on the spot was

regarded as a personal creative challenge. I spent a good deal of my childhood out of doors, on family farms (where I learned to look after animals as well as to make butter, cheese, pickles, jam, and so on) and camping, where we often made do with whatever materials were at hand and made our own fun.

From my mother and grandmother I learned many old-time kitchen and needle arts - they could make anything one could care to name, from rugs to chiffon cakes; from my father just about any useful task in the garden or woodshop - but the more esoteric or arcane aspects were all my own "invention", having discovered folkloric studies at the public library at the age of ten.

I was, and still am, a voracious reader of fairy tales, fantasy, poetry and classic literature. The magic of Word, from Chaucer to Terry Windling cleansed the doors of perception, and left the curtains blowing in the joyousness of a howling gale off the Cornish coast. To me, other times and places beckoned like the halls Faery did Thomas the Rhymer. I was bewitched by it all, for it matched my inner world in its gaudy-painted colors. I felt at home in the midst of Shakespeare's version of the New Forest, or in Blake's Vision. When I made costumes for myself, as I did readily

as a child, they were certainly "something rich and strange" - I was always a hopeful romantic.

I had an epiphany at the age of 16 in the winter woods of a small mountain town - Idyllwild, appropriately - while on a break from church camp. In the clear crystalline cold air, I was suddenly and inexplicably stricken with a vision, I can call it no less - of how I was to live my life -its essential nature. This was as a craftsperson, steeped in the old traditions, keeping them alive for new generations, both in my own practice of them and in teaching if anyone were interested. The "do it yourself" directive of my childhood came to fruition in the Back to Earth nascent organic movement of the late 1970s. "Preserving tradition" with an updated twist seemed as natural to me as the music of Jethro Tull or Steeleye Span. I resolved to learn everything I could about the various arts in which I was interested, their histories and practices. This idea filled me with a deep, almost pagan, sense of connection to the earth and to the past, to both people and places, and it would have vast repercussions in my life.

By the time I entered my teens I had made studies of several genres of folksongs in addition to the more general "folk era" troubadours (Joan Baez, Gordon Lightfoot): sea chanteys, British and American working songs, drinking songs, and the inevitable "love" songs (often satirical). This would evolve into the complex undertaking of social and cultural anthropology, with an emphasis in Celtic Studies, learning several of the Celtic languages, and a thesis in Descriptive Linguistics.

But like most cultural anthropologists, I enjoyed the hands-on aspect of material culture history; in my teens and twenties I worked at several Renaissance faires, plying self-taught crafts from spinning and weaving to corn dollies to paper-making to archery. I studied theatre design, with an emphasis in costuming, made fantastic costumes and wedding clothes, branched out into vintage and historical reproductions, all with an eye to absolute - some would say unnecessary - authenticity. From there, as a living history interpreter, I worked at the Colonial Williamsburg Foundation and the National Maritime Museum.

I was fascinated with herbal medicine from a child, and when I was 15 discovered both John Lust, a modern herbalist, and Nicholas Culpeper - the 17th Century

British physician. I was largely self-taught, experimenting on myself by trial and error in the time-honored way. I became an amateur botanist, collecting herbs on weed walks. I learnt to make tinctures and poultices and decoctions. Eventually I took proper courses, and became both a certified herbalist and an empirical [lay] midwife.

Clearly, I was "counter-culture", but I found at the age of 16 that I was also part of a long tradition - going back at least to the Jacobean and the English Country Party after the English Civil War, if not to the mediaeval guilds. A fellow actor commented rather off-the-cuff that I looked like a Pre-Raphaelite painting, something I should cultivate, and so began an odyssey that led me to Rossetti, Burne-Jones, William Morris, and Morris & Co. That Morris was a socialist and had very strong ideas about the way society should function (meanwhile being that hippie thing, a trust fund baby, himself) pleased my own native sense of what was right and fair, and I found a niche for my social and political ideas thanks to his extensive writings. I have, when called upon to do so, labeled myself a socialist ever since.

Happily, the thread from the mediaeval guilds, through the Country Party (eventually absorbed into the Whigs) and late 19th Century Socialism (complete with utopians and vegetarians) was still twined sturdily in the co-operative movement; in 1978 I met its incarnation in the Briarpatch Network, a San Francisco-based group of people interested in "simple living, openness, sharing, and learning how the world works through business".

Their attitude of right livelihood, sharing of resources, and honest business practices resonated deeply with my sense of preservation of the best of the past.

We all know that the co-operative movement went largely underground, the province of "counter-culture" types. But it never entirely died, and in this age when we are afflicted with global warming, a Mad-Hatter type lifestyle, and rapidly dwindling natural resources, there never seems to be a better time to find a better way to do business, to live; for our own sanity and bliss, and for the sake of future generations.



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So said the master, William Morris;

an imperfect human, but a vibrant avatar in so many arenas of life. Here at Brother Rabbit, we believe sincerely that our lives can be filled with beauty, joy, and deep satisfaction, and that we do not have to be endless, mindless consumers at the mercy of the multinational corporations to do so.

Beginning with the simple tenet above - that we deserve to be surrounded by genuine beauty and graceful utility - we take the notion that we are the master craftsmen of our own existence into every arena of life: learning and teaching old skills and new; sharing histories - personal and cultural - and lifeways, our own acquired wisdom and whimsy; making our own fun, with stories and music at evening gatherings; steeping ourselves in the bounty and wisdom of nature through direct experience and observation. We thus become once more a part of the human family, the great dance through time, connected to each other and to Source.

Brother Rabbit is not merely an enterprise, designed to make money for its owners; it's a resource, a network, a lifeway, a philosophy of beingness. It's a vehicle for connection and transformation.

Nothing should be made by man's labor which is not worth making; or which must be made by labor degrading to the makers.

WILLIAM MORRIS

Our name comes from a textile pattern of Morris's - Brer Rabbit - which in turn comes from the folktale in the Uncle Remus stories Morris read to his daughters.

It is right and necessary that all men should have work to do :

First : Work worth doing;

Second : Work of itself pleasant to do;

Third : Work done under such conditions as would make it neither over-wearisome nor anxious.

WILLIAM MORRIS

Some have said that Brer Rabbit represents the joyousness in struggle, and the potential for the victory of the less apparently powerful over the dominant. Brother Rabbit signifies this, but also our oneness with each other, our necessary deep connection with nature, and the tradition of the mediaeval guilds in modern times.

Brother Rabbit escaped the Tar Baby by hiding away in the briar patch, finding peace and freedom; may we also find our own great happiness in the network of the Briarpatch.

Our crafts and craftspeople, if they bring you delight, are a vehicle to a deeper happiness.

Kelly Joyce Neff

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