

HERB TALK ANTHOLOGY

John Finch, 2006

In 1995 I was asked to write a monthly column, *Herb Talk*, for Living Better Magazine, a local San Diego Publication. Some articles appeared in other publications as well.

Herbs in Medicine

People have used herbs for their medicinal, cosmetic and culinary properties for thousands of years. And this tradition continues today in 80% of the world.

Before 1750 most people lived on farms in small villages. The land provided food and material needs. If someone had a pain they brewed a tea of wintergreen, willow or birch, whichever grew nearby. More serious concerns were brought to the attention of the local medicine person, or simplers.

By the early 1800's improvements in glass-making gave the microscope a clear image for the first time. By focusing on wintergreen it was now possible to identify and isolate the acid responsible for its pain relieving properties. An isolate of salicylic acid was extracted from the plant. This isolate, aspirin, could insure standardized dosage not possible with whole plant extracts which the folkloric teas represented. And all the mess and fuss of dealing with large amounts of plant material was eliminated.

By 1880 there were only a few crude botanicals in use. This departure from balanced whole plant medicines presented a new problem. Within the matrix of a plant's balanced biochemistry, plant medicines are naturally buffered. Isolates, however, produced all sorts of disorder symptoms, natural warnings that the body's balance had been adversely altered.

We are now experiencing a resurgence of interest in herbs, an herbal renaissance. Since our tradition was broken for over a hundred years, we are confronted with an information gap. The old simplers have died. With them has passed much of our herbal heritage. And the commercial marketplace offers little help. With generic labeling of teas and encapsulated powders, it's difficult to determine therapeutic dosage levels for a given herb or remedy. A box of tea bags will instruct us to place one tea bag in a cup of hot water. What the directions don't tell is that we've made a beverage and not a medicinal tea. Many herbs, in fact, may be taken in quantities of an ounce or more (a large handful) a day. Therefore, to realize the full therapeutic effect from our camomile tea, we need to use 7 tea bags, not just one. It's the same for powders. Whether it's a mild nutritive tonic like alfalfa or a more powerful stimulant purgative herb like cascara sagrada, the label directs us to take two capsules a few times a day.

And when we do decide to try herbs, our new herb buyers are offered herbs that are sometimes inferior in quality. Many commercial herbs are grown en mass in third world countries. And although it's illegal to use chemicals like DDT in America, it's permitted to export them to countries that grow our food and herbs. Fortunately there are sources for organically grown and wild harvested herbs that offer full therapeutic power without residues of toxic chemicals. And the importance of producing our herbs organically goes beyond chemical purity.

Besides medicinal principles, herbs offer vital nutritive support. They contain concentrations of vitamins, minerals and important amino acids. If an herb (or fruit or vegetable) is grown on the same plot year after year, it will grow. As it produces a nutritive or medicinal substance from raw materials in the soil, those materials become depleted. The addition of compost nourishes the soil, replacing lost materials. The Indians taught this simple principle to the pilgrims settling in America. Nourish the Earth and the Earth will nourish you. The pilgrims regarded the addition of fish parts to the planted corn seeds a ritual with no practical advantage. Fresh, unsprayed, and organically grown herbs offer excellent healing results. In fact, rightly used, herbs offer a healing system that is at once powerfully effective and gentle.

Today people are having an experience with herbs. They're experiencing the return to balance which herbs bring. And they're rediscovering the blessings of whole herb medicines used by generations of their ancestors.

Eating Out

There was actually a time when going out to get something for dinner did not entail making reservations at a restaurant or shopping. Before shopping there was gathering. When the going got tough, the tough went gathering. And so it is today for those who know what to gather. And so it will be when (the scientists assure us it is when, not if) the fragile distribution of goods gets disrupted by a flood, earthquake or other natural or man-made disaster. When the grub in the earthquake kit goes, who you gonna call? It might be prudent to know a little something about gathering. Learning the local edible plants is the easiest way to know your way around gathering. There are a number of excellent references on edible wild plants, some with line drawings and photographs. There are plant samples at the Natural History Museum. The SD Reader lists nature hikes that happen around the County. Some of the parks have Nature Centers with hikes and information on plants. It's a good idea to check out plants at different seasons so we can recognize them when they're bare and withered.

But even if you don't know hemlock from fennel, a screening process can help. I wouldn't gather in landscaped areas unless there was something there I knew for sure like natal plum (yum). Some of the best gathering like watercress, dock, wild celery and plantain will be found around water (look for sycamores, they grow around water). Something that looks like salad fixings warrants a little taste. Hardly anything will harm if only a small amount is eaten. On our herb walks participants sample *Conium maculatum* (so called poison hemlock). It's a narcotic poison. Below that dosage level it's just a narcotic. If that doesn't seem like salad the *Toxicodendron diversilobum* (so called poison oak) may. The natives would chew on a wad of leaves and apply to snake bites to draw the toxins out. They fashioned the stems into baskets. Eating a bit seems to make one insensitive to the rather uncomfortable reaction to it. The young leaves taste pretty good but get more astringent as they mature. If these greens don't appeal there are some very good tasting and nutritious plants and a number that will taste better when a few meals are missed.

The taste of a plant can reveal a lot about its nature. The more active principles in plants (alkaloids and glycosides) generally taste bitter. Some poisons taste kind of musty, like old gym socks. If the taste isn't too bad I eat a small amount and wait a few hours to see what happens. The progression of toxic reaction normally starts with nausea, then progresses to dizziness, convulsions, loss of consciousness, and finally death. So if a little doesn't harm, I try a bit more. Trying only one plant at a time establishes its potential for gathering. Once a small base is established it becomes a matter of what we eat, not if we eat. Remember, the native San Diegans didn't farm, they gathered. Some of the good food plants to be discovered are mallow, mustard greens, stinging nettle (steam them first), wild horseradish greens and seed pods, wild celery, thistle stems, wild oats, rosehips, acorns, piñon nuts, mesquite beans, cactus pads and fruit, and berries of manzanita, toyon, and elder. We have salt bush and pepper grass if you want to get fancy. Even the ice plant along the freeways can be eaten although we generally try to stay away from auto pollutants near a roadway. To the native plant varieties are now added some delicacies from the Old World. Spring heralds the sour grass season. Brought to the New World on little wooden ships, this sorrel was a favored pot herb before the popularity of its fancy cousin, French Sorrel, drove it to obscurity. Spring also brings some delicate gathering plants like miner's lettuce and chickweed. The menu reads, "a savory blending of Native American and European flavors"..., and eating out takes on a new meaning....

Sacred Native Plants

San Diegans share the temperate climate we love with some fascinating native plants with a rich history in herbal lore. Various sages grow from coastal areas to the mountains, covering entire hillsides in some areas around Ramona. The most common of this group of aromatic herbs are white sage, *Salvia apiana*, and black sage, *Salvia mellifer*. California sage, *Artemisia Californica*, and sage brush, *Artemisia tridentata*, have similar properties. Sages are sold in stores tied together in bundles, sometimes with cedar leaves, as natural incense or purifying sticks used in sacred spaces, homes and offices to clear residual vibrational energies. Purification with sage still precedes native rituals. The burning smoke is wafted around people and places, usually with a feather. We use sage and cedar to purify our Herb School classroom and Clinic before and after classes and seeing clients. Natives rubbed sage leaves on their skin to ward off insects and to mask scent while hunting. A few leaves placed in hot water make an agreeable and stimulating tea beneficial for quickening the memory and senses. It can also be gargled as a mouthwash for sore throats or used as a

wonderful foot bath for sore, tired feet. The name of the genus, *Salvia*, is derived from the Latin *salvere*, to be saved, referring to its curative properties. 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?"). Mugwort, *Artemisia douglasiana*, is a distinctive native plant. The leaves are dark green on top and a soft, downy silver on the bottom. It can be found growing in moist places along the banks of streams. In the middle ages mugwort was known as *Cingulum Sancti Johannis*. It was believed that John the Baptist wore a girdle of it in the wilderness. Many superstitions were connected with mugwort. It was thought to protect one from sunstroke, fatigue, wild beasts and evil spirits. Hung from the corners of a room it was thought to dispel spirits. Mugwort (mug herb) is said to have derived its name from having been used to flavor drinks. It was used to great extent for flavoring beer before the introduction of hops. It has also been suggested that it derives not from the drinking mug, but the moughte (a moth or maggot), because it has been long regarded, in common with wormwood, effective in keeping away moths. Medicinally, mugwort is used as a digestive aid, nerve sedative and female reproductive tonic helping to bring on the menstrual cycle. It is also employed as a diaphoretic to sweat out the commencement of colds, flues, bronchitis and fevers. In the early part of this century Dr. John Hill extolled the virtues of mugwort, and said, "Providence has placed it everywhere about our doors; so that reason and authority, as well as the notice of our senses, point it out for use: but chemistry has banished natural medicines." Asian species of mugwort are used in the preparation of Moxas, burning sticks used in acupuncture to stimulate local energy flow. Traditionally, dried mugwort leaves are placed in a pillow to aromatically stimulate vivid, epic length dreams. Hops, Camomile, Lavender and Roses are often added to the pillow to induce sleepfulness, raise the spirit and open the heart (to guard against nightmare). While living near the Russian River in Sonoma County, we picked bushels of mugwort which grows prolifically along the river banks. Large bundles of it hung to dry from the ceiling of our home. We would awaken at night and give accounts of the remarkably vivid dreams we were having. Mugwort leaves may also be smoked or drunk in a tea for this purpose. As with the sages, the making of a tea should take place in a covered vessel to preserve the volatile oils which would otherwise be lost in the steam. The common mugwort of commerce is European mugwort, *Artemisia vulgaris*. Our local species is five times more potent. Many other sacred plants grace our hillsides and valleys. Becoming acquainted with them can immeasurably contribute to our awareness and appreciation of the Nature around and within us.

Kombucha

One of the most controversial of the new health fads is a fermented beverage known as kombucha (kom BOO cha). According to reports millions of Americans are drinking it daily. It can be "brewed" at home in a week by making a sweetened tea with green tea (or black tea) and adding a natural bacterial/yeast culture that feeds on the sweetener and converts elements of the tea into substances that promote health. One substance, glucuronic acid acts to detoxify the body by binding up poisons and toxins in a water soluble form that can be excreted by the kidneys. Kombucha also contributes hyaluronic acid which is produced naturally by the body to maintain the integrity of intercellular barriers to viral infection. The popular immune-potentiating herb, echinacea, also stimulates this important function. The beverage also contains chondroitin-sulfate (which helps strengthen cartilage), mucoitin-sulfuric acid (strengthening to the stomach lining and vitreous humour of the eyes), a full complement of B vitamins and folic acid. It also produces carbonic acid which gives it a refreshing fizz like carbonated drinks and is loaded with enzymes which contribute to balanced metabolism, digestion and improved immune function.

So why are medical authorities warning about the potential risks involved with the ingestion of kombucha beverage? There seem to be two main arguments against it. The first is that it appears to contain antibiotics, a class of drugs whose misuse can foster resistant germs. We are warned that we should not drink the beverage unless we have some real need of its properties internally for an infectious disease like bronchitis. The antimicrobial agent, usnic acid (a dibenzofruane derivative) has been used in the form of a traditional herb, usnea (old man's beard), for quite a long time without much negative press. In fact, it is this antiviral property that has the interest of the AIDS community. The second objection to kombucha is the fact that it is grown in sometimes unsterile conditions that could lead to contamination by a variety of unwholesome organisms. Of course the "unsterile" conditions in our own refrigerators contribute to the growth of all sorts of molds and bacterias on our breads, cheeses, tortillas and just about everything left for a bit. Most of us

are actually able to spot these contaminants and cut them out or throw the spoiled food out. Those growing and using kombucha can tell just as easily if cultures are contaminated. The cultures are somewhat clear and translucent with any variation becoming obvious. And although the taste of each batch varies slightly, radical changes in composition of the beverage are discernable just as bad milk gives itself away.

I have been making and drinking the beverage myself for three years. The main benefits I have experienced have been improved digestion and more energy. In addition to my busy work schedule I play full court basketball a lot so I'm challenged in my ability to keep up with it all. There is a noticeable difference when I drink more of the beverage. I have provided cultures (they multiply naturally in the process of making the beverage) to hundreds of students, fellow herbalists and other teachers. They have given it to their friends, and they to their friends and so on with a geometric grass roots infusion into our immune deficient culture. With the exception of a few individuals who had a problems with it because it aggravated candida it has found happy homes and satisfied users. Reports of benefits have been numerous and specific. The latest craze has been fostered by the AIDS community because of the reports of immune boosting activity specific to AIDS and MS, cancer, arthritis, chronic fatigue, (and the list goes on). It's not surprising that the so called authorities are attempting to scare the public away from another natural substance that it can't control (or profit from). Kombucha joins the growing list of natural healing substances that threaten the health of the powerful pharmaceutical cartels, their sales force in the AMA and their pawns in government, the FDA. The recent import ban on the great natural sweet herb, Stevia rebaudiana, is an example of who our government is working to protect. Japan, testing Stevia extensively (it's their national sweetener) provided the FDA with a stack of favorable reports on its nontoxic nature (it also helps regulate blood sugar levels and kills the bacteria in the mouth that cause cavities!). Lobbies for artificial sweeteners here matched that stack with legal tender. If you want some look for a facial mask known as stevia or grow your own.

San Diego's Native Power Plants

San Diego encompasses coastal valleys, mountains and desert. This geographic diversity and a temperate climate provide life zones favorable to a variety of native plants. The native San Diegans, several local tribes, had a sacred relationship with their medicine plants. They used them with ritual and prayer.

One native plant used by native people is white sage, *Salvia apiana*. You may have seen it in health food stores tied in bundles as natural incense or "smudge sticks." It grows from coastal areas to the mountains. Entire hillsides are covered with it in some areas around Ramona. A member of the mint family, white sage has had many uses as food and medicine, as well as in ceremony. The young stalks were eaten raw. The seeds toasted and ground with wheat and wild oats, were eaten as a dry cereal. A few leaves placed in hot water made an agreeable and stimulating tea beneficial for quickening the memory and senses. By lightly boiling some leaves in water and breathing the steam, congested lungs were relieved. We burn sage to cleanse our home and office. It clears the space of residual energies. This practice precedes native rituals. The burning smoke is wafted around people and places, usually with a feather. To help repel insects when out hiking or collecting herbs, the aromatic leaves can be rubbed on exposed parts of the body.

The natives also used a nightshade, the Jimson weed, *Datura meteloides*, which they call Toloache (tow low ah' chay). Brewed as a narcotic tea, it was given to young men learning ceremonial dances. It is no longer in general use but is taken at annual tribal gatherings. I have smoked small amounts of leaf material of the Jimson without much effect. Some friends reported headaches lasting all day after smoking it. Native use is with the more powerful root. It is not advised to run out and start gathering and using these power plants until you understand their proper dosages and applications. The active principles of *Datura* are toxic in moderate dosage. These include strychnine, hyoscine (scopolamine), and the belladonna alkaloids (hyoscyamine and atropine). Misuse can lead to nausea, paralysis and death. Proper identification is also essential in wild plant use.

I have begun to know the plants, even the "poisonous" ones. I have eaten small amounts of the poison hemlock, *Conium maculatum*. Hemlock belongs to the family of Umbels to which parsley, fennel and carrot also belong. Like many Umbels Hemlock contains an acrid, watery juice, more or less narcotic when taken in small doses but fatally poisonous in moderate doses. In Europe it was frequently used to execute criminals, including Socrates.

I also eat the much maligned poison oak, *Toxicodendron diversilobum*. Natives used it as a cure for warts, ringworm and rattlesnake bite. Again, I don't eat much. One small leaf at a time is sufficient to build a relationship with the plant. I have come to regard it as a protector of the wild places. If one can't get by this

plant, they won't get far off the trail with their disposable diapers and beverage cans. When I found that the natives wove baskets with it I knew there must be a way to approach it without invoking its wrath.

Mugwort, *Artemisia douglasiana* is one of our favorite native plants. It grows in moist places along the banks of streams. In the middle ages it was known as Cingulum Sancti Johannis, as it was believed John the Baptist wore a girdle of it in the wilderness. Many superstitions were connected with it. It was thought to protect one from sunstroke, fatigue, wild beasts and evil spirits. Medicinally it's used as a digestive aid, nerve sedative and female reproductive tonic. While living near the Russian River in Sonoma County, we picked bushels of mugwort to put in dream pillows. The mugwort would stimulate vivid, epic-length dreams. Large bundles of it hung to dry from the ceiling of our home. We would awaken at night and give accounts of the incredible dreams we were having. Finally we hung a screen of drying roses above our heads to soften some of the effect. It wasn't until sometime later that we found reference to mugwort as an aphrodisiac. We thought it was just the romantic location near the river that had made our summer so amorous. We gave dream pillows to some friends in Humboldt County. They reported being so stimulated they couldn't sleep with it in the house. Smoking the herb or drinking a tea will also activate the subconscious processes.

I attended a full moon dream circle on a mountaintop meadow with a group of herb students. We placed mugwort stalks in a circle connected by ribbons. We drank mugwort tea and smoked mugwort. We then slept with our heads in the center around our mugwort stalks. Some wild dreams were recounted the following morning.

If you compare our local variety with mugwort available commercially (*Artemisia vulgaris* from Europe) you will find ours five to ten times more potent. Asian species of mugwort are used in the preparation of *Moxas*, burning sticks or cones used in acupuncture to stimulate local energy flow. Mugwort is closely allied with wormwood, *Artemisia absinthium*, a primary ingredient of the narcotic herbal liqueur, absinthe. Absinthe was widely made (and often abused) in Europe before being banned by Napoleon. It is also related to southernwood, *Artemisia abrotanum*, (also known as lad's love and maiden's ruin) a common herb in San Diego with mild muscle relaxing and aphrodisiac properties.

Another of the local plants that has found its way into our lives is tree tobacco, *Nicotiana glauca*. This nightshade is a traveler. No one really knows how it got to San Diego in the first place. It's a native of South America. One theory is that it was brought by the Spanish as they colonized north. Another theory holds that it was traded from one native village to the next, walking, in effect, all the way. It is a beautiful, if poisonous (and narcotic), tree reaching a height of about twenty feet. Persistent yellow tubular flowers are seen most of the year. It has somehow seeded itself in several places outside our boy's room. It's related to the aboriginal Indian tobacco, *Nicotiana attenuata*, smoked by natives here in earlier times. We have not found it to be of much appeal as an herbal smoke but its content of nicotine makes it an excellent insect repellent for garden plants.

We have some powerful and interesting plant allies among us. Getting to know them can be an adventure which I have found stimulating and rewarding.

Flower Essences in Vibrational Medicine

Plants have been evolving on this earth long, long before man ever walked here. Fossils of the first land plants date to the Silurian Period, over a billion years ago. Man's earliest appearance has been traced to the Quaternary, approximately 2 million years ago. The use of plants to heal predates our historic period. It began with the rise of Lemuria, an ancient civilization in harmony with itself and the harmonics of nature. They generally used the essences of the flowers of plants to evolve in spiritual consciousness. At that time there was no need for physical forms of healing since little disease existed. It was found that there was a cosympathetic bond or empathy between human form and plant life, just as exists between all life forms. The Lemurians had the ability to organize this bond into a complete system of healing using only the essences of the flowers. The actual essences are the electromagnetic forms of the flowers which, in the evolutionary plan, are the highest concentration of life force in the plant. They are tinctures of liquid consciousness. Stored within them is an evolutionary life force shaped to a particular pattern. With the fall of Lemuria and the rise of Atlantis a more gross process of floating flowers in water to gather the essences was adopted. This process was preserved with the later development of an advanced culture in Egypt.

The use of flower essences in healing and conscious growth was reintroduced in the 20th century by an English physician and homeopath, Dr. Bach. In the Fall of 1928 Bach visited Wales where he acquired two wild flowers, *impatiens* and *mimulus*. He made homeopathic remedies with each. Clinical use yielded excellent results and soon, with his intuition and clinical experience, he developed the sun and boiling methods of preparing flower essences. At that time in England Rudolph Steiner was speaking to groups of physicians about the great healing value in flowers that would some day be discovered. From 1930 to 1935 Bach discovered 35 more flower essences including Rescue Remedy which is a combination of 5 of these. He became so sensitive to the vibrational energies of the flowers that he could intuit their effects on people by simply tasting them or holding them in his hand. Developing their use in his practice he deduced that by healing the mind and spirit, the body would heal itself, the basis for modern holistic body/mind medicine. He also correctly deduced the association between stress and disease.

In my experience with flower essences over the past 10 years I have found that subtle influences can indeed evoke profound changes. Our kinship with plants makes us susceptible to their vibrational influence. Besides the Bach flower essences, there are California flower essences, desert flower essences and even gem elixirs. Usually flower essences are selected by questioning or simply by using a pendulum. Each essence selected corresponds to a particular quality of our character. A few drops of the flower essence are placed under the tongue or taken in a beverage several times a day. By this attunement and saying an affirmation, a deep catalytic change begins to take place.

Ma-huang

The news media continues to release alarming reports of the perilous results of people using commonly used herbs. The latest campaign is aimed at ma-huang, one of the oldest herbs employed in Chinese herbal medicine. Used for 4000 years there, it is now finding its way into western combinations ranging from weight loss formulas to “herbal ecstasy”. The main fear is that ma-huang may cause heart attacks or strokes. Ma-huang was brought to the attention of western medicine in 1923 when a Chinese researcher and a German pharmacologist working together analyzed its primary active ingredient ephedrine. Ephedrine is a salt of an alkaloid very soluble in water. It is a sympathetic nerve stimulant similar to the hormone adrenalin but without many of the drawbacks of adrenalin. Ephedrine is non-toxic, can be taken orally in a tea or concentrate and exerts its medicinal action in the body for several hours. This action is similar to the “adrenalin rush” experienced in emergency situations that drives the “fight or flight” response. If you were strolling through the woods and were set upon by a ferocious bear you would experience this hormonal response. In order to fight or run, all of the body's energy would be shunted from the central organs to the skeletal muscles. At the same time, the blood would be quickly circulated and oxygenated to support the action of the muscles, so heart rate and breathing increase. Sugars stored in the tissues quickly release for immediate consumption by the muscles. The mind would become very focused so that quick decisions, “fight or run?” could be made. Any sinus or lung congestion would quickly clear up. Tiredness would be alleviated and the limbs warmed. These actions are produced in a gentle manner that last for several hours. They make most people feel quite good. In a society that craves stimulation, it's no surprise that ma-huang has become so popular. The bulk herb, *Ephedra sinensis*, is inexpensive, less than \$5 for a pound. The standard dosage according to Chinese medicine is one quarter ounce which would presumably be simmered in 2 cups of water. In China it is incorporated in formulas that improve peripheral circulation to treat arthritis, especially rheumatoid arthritis. It is also used in combination for lung and sinus congestion providing remarkable decongestant effects.

As with all alkaloids, there is a marked physiological response to ephedrine which accounts for its therapeutic actions. In most people this response presents no threat to health. Problems may arise in persons with constitutional imbalances that would be driven more out of balance by the reaction of the body to it. Because energy is diverted away from the internal organs, persons with weak digestion may feel jittery, and perhaps tired. It may cause digestive disturbance and gas. And because it increases heart rate, a negative effect may be experienced when those with heart problems take it in large amounts or for an extended period of time.

When self-medicating with any herb it is good policy to take a small amount and monitor body response. If you have questions about it, consult an herbalist.

Surviving the Holidays

As we enter the holiday season we sometimes brace ourselves for the highest stress times of the year. At a time when the days get shorter many animals cozy up in their burrows to contemplate or just snooze. Unfortunately, our social responsibilities call for us to leave our cozy nests to fight traffic to the shopping malls. It's no wonder this season also brings the highest suicide rate. One way to survive the madness is to apply some herbal tonic support for the overworked autonomic nervous system.

Because homeostasis is dependent on the opposing forces of the Autonomic Nervous System, support provided by herbal materials with constituents that act on both halves have an enormous influence on overall health. Herbal nervines are able to provide materials the body can draw on to tone the Sympathetic Nervous System or Parasympathetic Nervous System, whichever it needs at the time. They strengthen and balance other divisions of the system as well. One marked difference between the use of herbs to relax, calm and sedate rather than pharmaceutical drugs like Valium is that the herbs don't toxify the body nor leave us with a drug hangover. Moreover, while very effective at inducing deep states of relaxation and sleep, studies show that herbal nervines don't impair mental alertness, reaction times, or locomotor coordination. So an herb like valerian can help you get a good night's rest, allow you to awaken refreshed and actually improve mental alertness and clarity the following day. Valerian (*Valeriana officinalis*) is in no way related to valium. It's a safe tonic nervine, muscle relaxer and sedative used to treat insomnia, nervous tension, anxiety, muscle cramps and spasm, muscle pain, headache, stress, menstrual pain and discomfort, hysteria, epilepsy (as an anticonvulsant), autonomic nervous system disorders of all kinds (including hypochondria), hypertension, and others. One old folk tradition depicts married couples hanging valerian in their homes to help bring peace and prevent contention in the home. During the First World War valerian was administered to front line troops to prevent shell shock. In the Second World War it was used to calm civilians during air raids. Larger amounts of the herb don't cause an amplification of effect after a certain dosage, but only extend duration of the effect. The calming and healing properties make it effective in childhood behavior disorders and learning disabilities. Three main groups of active constituents: volatile oil, esters and alkaloids, have been discovered in the root. Acting as a true tonic, valerian may actually pick some people up rather than depress them. That is, it is a truly balancing nerve tonic, providing either relaxation or stimulation, whichever is needed by the body to restore balance. Containing more calcium than any other herb, valerian is one of the most popular nervine herbs in the world. It may be steeped to make tea (boiling it would drive off the essential oil). It extracts well in alcohol and combines well with skullcap and camomile. I mix a bit of maple syrup with the extract and add a splash of carbonated water, mixing it into a nerve tonic spritzer great for the holidays or any day.

MAGICAL DANDELION

While in our herb garden the other day my daughter picked a dandelion that had gone to seed. She blew heartily till all the seeds flew off and floated away in the afternoon breeze. Remembering having done the same as a child, I inquired if she had made a wish. She had indeed. It made me think how funny it was that as adults we also have the task of keeping these pesky "weeds" out of our lawns. The children propagate. The adults eradicate. A native to the Old World, this short member of the sunflower family has become well established in every temperate climate in the world. Its widespread distribution may be a hint from Mother Nature that everyone has need of it.

Although a relatively recent addition to the medicinal repertoire, dandelion has become one of the most widely used medicinal herbs in the world. Its common name was apparently given by a 15th century surgeon who likened the cut of the leaf to a lion's tooth, called in Latin *Dens leonis*. The botanical name, *Taraxacum officinale*, derives from the Greek *taraxos* (disorder), and *akos* (remedy), or **good for what ails you**, referring to its curative power. It is widely cultivated and harvested from the wild. All parts of the plant are useful.

The yellow composite flowers indicate the plant's affinity for the liver and its capacity to bring joy to all who use it. They are lavishly supplied with nectar and are a favorite ingredient in herb beers and the famous dandelion wine. The white milky sap of the stem and root can be used as a topical remedy for warts. The young leaves are a slightly bitter addition to salads acting as a digestive tonic. They supply an abundance of vitamins and minerals of great value to the nerves and blood. 20 ml of the fresh juice is taken three times

a day as a diuretic. A less effective diuretic is made from a tea of the leaves. The tincture is often added to remedies for failing heart to insure adequate potassium intake. The tap root of dandelion, much like a carrot, extends at least a foot into the Earth, drawing mineral energy. Roots are collected in Autumn of their second year. They are best left uncut as much of their medicinal virtue depends on the milky juice which would be wasted in bleeding. A favorite liver stimulant with many herbalists, it is a cleansing tonic for problems including gallstones and jaundice. It clears liver congestion and will cure hepatitis in short order. It can be useful for constipation and toxic conditions such as joint inflammation, boils, abscesses, eczema, and acne. It aids digestion in the stomach and stimulates the pancreas and spleen. A curative starch, inulin, contained in the root is a safe remedy specific for hypoglycemia and diabetes.

Because of their high concentration of vitamins and minerals, both the root and the leaf are considered restorative and adaptogenic aids in building the body and restoring energy reserves. Not being poisonous, quite large doses may be taken. The roasted root makes a very agreeable coffee substitute and is often combined with roasted chicory, *Chichorium endiva*, which has similar properties. This “weed”, dandelion, may be the most beneficial plant in the world. Maybe it's time we take a lesson from the children and experience the joy and cleansing this magical herb brings.

Sleepytime Herbs

Surveys show that as many as one-third of all adults in the U.S. have trouble sleeping. This may involve trouble getting to sleep, staying asleep or with the depth of sleep. This problem is often compounded by taking barbiturates or valium family drugs (benzodiazepines), like xanax, which can become habit forming. Many herbs provide a natural way to relax and induce sleep without the “morning after” side-effects often associated with pharmaceuticals. One interesting example of an herb interfacing with our body's natural processes is passion flower. Our body regulates its natural processes electrically or chemically. Sleepfulness is induced, in part, by the chemical neurotransmitter serotonin. The more serotonin present in the brain tissues, the stronger the sleep response. The body synthesizes serotonin from an amino acid, tryptophan. Some people supplement dietary tryptophan in an attempt to increase serotonin production. Since tryptophan has come under attack, possibly as a result of contaminated batches, the synthetic precursor, melatonin, has become the newest wonder drug in this battle. Melatonin is produced by the body in the pineal gland which acts on the light/dark cycles. It is degraded to tryptophan, then converted to serotonin. Studies have shown, however, that increasing dietary tryptophan has minimal effect on serotonin levels. One stated problem with dietary melatonin is that taking it on an ongoing basis may reduce the amount the body makes, creating dependence. Since these synthetic supplements have been in use for such a short time, we really don't know long term effects of taking them. Passion flower, on the other hand, has been safely used for hundreds of years and has demonstrated that it can significantly raise serotonin levels. It does this by inhibiting the breakdown of serotonin by the enzyme monoamine oxidase (MAO), responsible for this function. Even a mild MAO inhibitor like passion flower can double serotonin levels in the brain in less than an hour. It has also demonstrated muscle relaxing properties employed in the treatment of muscle cramps and has been observed to overcome nervous symptoms and cramps that inhibit sleep, and to produce a restful and deep sleep free from frequent awakenings and disturbances. This benevolent plant was first discovered in 1569 by the Spanish doctor Monardes in Peru. According to Monardes' reports, it was highly treasured throughout Peru and Brazil. Monardes, and other explorers after him, took the herb back to the Old World where it quickly became a favorite herb tea. Many years later, passion flower returned to America with the settlers and became a part of their standard pharmacopoeia. It is now used world wide as a mild sedative that reduces anxiety and nervous tension. It appears to be completely free of toxicity or side effects, and has been approved by the FDA for food use. A tea or tincture made from the whole plant is best. Popular sleep remedies marketed throughout the world combine passion flower with other FDA approved nervines such as valerian, lemon balm, and camomile.

Many people use camomile to reduce anxiety and induce a state of pleasant relaxation with its tonic properties. These properties were fairly well validated scientifically back in the 50's and even appeared in scientific papers as long ago as 1914. In one study, camomile was given to heart patients to determine if it affected cardiac function. It didn't. But 10 out of 12 of the patients fell asleep about 10 minutes after drinking the tea.

Other factors that may aid sleep include exercise, meditation, proper ventilation, blocking out artificial light and noise pollution and avoiding large meals and use of stimulants late in the evening.

Marathon Lost

There aren't many of us that can claim San Diego as our native home. We have come from everywhere on the planet to create the melting pot population we find here. Our plant population is also a mix of natives and plants brought by settlers from their native homes. When pilgrims came to the New World, they had to decide what to bring, and what to leave behind. Along with their belongings, they carefully packed their favorite plants. These they nurtured on the arduous crossing of the Atlantic in tiny wooden ships. The more adventurous of these settlers continued across the great continent of America in wooden wagons, again carrying with them their precious plants, finally finding their way to our Pacific shores. What is most remarkable is that many of these plants, once highly regarded, are now very poorly known and little understood. Many are now considered weeds and are poisoned, chopped back or dug out. One example of such a pilgrim plant is fennel, *Foeniculum vulgare*. Fennel is a tall, hardy perennial herb having umbrella-like yellow flower clusters and aromatic feathery leaves. It is indigenous to the shores of the Mediterranean, whence it spreads eastward to India. It has followed civilization, especially where Italians have colonized, and may be found growing wild in many parts of the world, upon dry soils near the sea-coast and upon river-banks. For the medicinal use of its fruits, commonly called seeds, and the succulent edible bulb and shoots, fennel has been cultivated in many parts of the world since ancient times. In medieval times, fennel was employed, together with St. John's wort and other herbs, as a preventative of witchcraft and other evil influences, being hung over doors on Midsummer's Eve to warn off evil spirits. Romans made garlands from fennel to crown victorious warriors. They also believed that serpents sucked the juice to improve eyesight. Many olde herbalists uphold the eye-strengthening power of fennel. Longfellow wrote about this belief, "Above the lower plants it towers, the Fennel with its yellow flowers, and in an earlier age of ours, was gifted with the wondrous powers, lost vision to restore." An infusion of the seeds is still employed in modern eye washes. The Greek name for fennel is marathon, derived from a verb meaning "to grow thin". William Coles wrote in Natures Paradise, in 1650, that fennel seeds, leaves and roots were used in drinks to help people lose weight. This may be due to the diuretic properties of the herb. It is also widely employed as a carminative, to warm the gut thereby relieving gas and cramping. It has been an old folk custom to chew the seeds during church sermons to quiet gastric rumbles. It is excellent for colic in babies. Other medicinal properties include muscle relaxer, warming expectorant, stomachic and stimulant for milk production in nursing mothers. As a food, it is widely used alone or as a flavoring agent. The entire plant may be eaten, although normally only the bulbous root is sold in produce departments of local natural food stores. The oil contains a substance known as anisole, also present in anise. This is the official flavor we know as licorice and is added to candies, pastries and beverages. A strong infusion of fennel seed combined with honey, clay or yogurt makes a facial mask that is soothing, toning and wrinkle-removing. It's not surprising that early settlers took so much trouble to bring it here. What is more of a mystery is how we could, as a culture, lose this information and the alliance of such a marvelous herb.

Refreshing Nettles

As our San Diego Summer heats up, we look to beverages for refreshment. Beer is often the beverage of choice. And while commercial beer can present health risks because of the chemicals used in the process, herb beers have been a traditional part of folk medicine for generations. In fact, herbs have been an integral component of the beer making process. Before hops were used, mugwort and other herbs imparted their slightly bitter flavor. The number of micro brewery selections and folks brewing their own at home is on the rise. One herb brought to San Diego by Europeans for its many applications, including great herb beer, is Nettle, also known as stinging nettle for the sting imparted by the many sharp, hollow hairs adorning the whole plant. It can be found growing along stream banks and shaded areas of the county. Mrs. M. Grieve, in her twentieth-century version of the medieval herbal, A Modern Herbal, first published in 1931, offers the following recipe for Nettle Beer. "The Nettle Beer made by cottagers is often given to their old folk as a remedy for gouty and rheumatic pains, but apart from this purpose it forms a pleasant drink. It may be made as follows: Take 2 gallons of cold water and a good pailful of washed young Nettle tops, add 3 or 4

large handful of Dandelion, the same of Clivers (Goosegrass) [Cleavers], and 2 oz. of bruised, whole ginger. Boil gently for 40 minutes, then strain and stir in 2 teacupful of brown sugar. When lukewarm place on the top a slice of toasted bread, spread with 1 oz. of compressed yeast, stirred till liquid with a teaspoonful of sugar. Keep it fairly warm for 6 or 7 hours, then remove the scum and stir in a tablespoonful of cream of tartar. Bottle and tie the corks securely. The result is a specially wholesome sort of ginger beer. The juice of 2 lemons may be substituted for the Dandelion and Clivers. Other herbs often added to Nettles in the making of Herb Beer, such as Burdock, Meadowsweet, Avens Horehound, the combination making a refreshing summer drink." Nettle has also been valued in cultures around the world as a delicious and nourishing food source. The tender, young spring leaves eaten raw in salads or cooked as a vegetable enrich the blood and nourish the nervous system. They contain Vitamins A, C and K, Calcium, Iron, Potassium, Formic Acid and Sulphur. It is an excellent medicinal and nutritive tonic supporting overall health. Old herbals abound in recipes for Nettle, including Nettle Pudding and Nettle Porridge. When dried or steamed, the needle-like hairs lose their ability to impart a sting. The sting, sometimes applied by lashing with the plant, is a remedy for poor circulation and gouty joints. An antidote for the sting, which wears off after 24 hours, is the juice of Nettle, Dock, Rosemary, Mint or Sage. Also finding use as a hair tonic and in the making of paper and cloth, Nettle may be considered as one of our most useful plants. Hikers along streambeds beware!

Smart Medicine

CNN coverage of the Golf War impressed people around the world with the ability of weapons developed for the military to be directed against specific targets, while leaving the surrounding real estate intact. And while "smart bombs" must be the quintessential oxymoron of our modern age, I've always been struck by the ancient and inherent wisdom in herbs and by their ability to provide intelligent and specific medical actions in the body. A single herb may raise or lower blood pressure (Cayenne), estrogen levels (Vitex), or nerve response (Valerian). On a recent trip to Florida we were strolling in a park on Key Biscayne and encountered an amazing plant that is actually a "smart poison". The Rosy or Madagascar Periwinkle is a member of the genus *Vinca* which also includes the greater and lesser periwinkles commonly found throughout San Diego. Its plant family, Apocynaceae, includes many tropical trees and shrubs, a large number of which are poisonous, including our lovely Oleander. In 1923, the Rosy Periwinkle aroused interest in the medical world when it was found to have the power to cure diabetes, and was thought it may prove to be an efficient substitute for insulin. One of its alkaloids, vincristine, is currently employed in the fight against childhood leukemia. It acts as a mitotic spindle poison. In mitosis, the process of cell division, the mitotic spindle helps to pull the two halves of the cell apart. Vincristine preferentially poisons the mitotic spindles in malignant cells in the process of dividing, while leaving normal cells alone. Periwinkle has a long history as a friend to man. Culpepper recommended it for nervous disorders, the young tops made into a conserve for the night-mare. An ointment prepared from the bruised leaves has been used as a soothing and healing medicine for all inflammatory ailments of the skin, and is an excellent remedy for bleeding hemorrhoids. It has astringent and tonic properties. If you might hope that a smart herb might also make you smarter, periwinkle won't disappoint you. Studies in Germany have confirmed that periwinkle is one of the most powerful herbal cerebral vasodilators, opening micro-circulation to the brain. Since ancient times periwinkle has been held in high esteem. It is considered a protector plant. Being also called "Joy of the Ground", it was said to place one in a state of grace. It was worn as a garland or girdle to ward off misfortune. While not at risk from car jackers, people of olde, mostly traveling on foot, were subject to inclement weather, robber bandits and predatory animals. Lions and tigers and bears, oh my! Grown near a gate or door, it was thought to keep away unwanted visitors. Another old name for it is "Sorcerer's Violet". It was a favorite with the "wise folk" for making charms and love-potions. Old herbals tell of its potency against "wicked spirits", having the power to exorcize evil and demonical possessions. The superstitions about it were repeated by all the old writers. It was said to induce love between man and wife. In France, it is considered an emblem of friendship. Germans called it the "Flower of Immortality". If you wish to grow periwinkle yourself, it is commonly found in nurseries. Just be sure to place it where it is well bordered as it tends to choke out other vegetation and will eventually stand alone in the allotted area. As an apple a day

keeps the doctor away, periwinkle at the gate keeps unwanted at bay. Shielded and ever prosperous in a state of grace, that's smart medicine!

Algae

One single-celled organism, available as a whole, natural, wild food may well be the answer to many of the problems facing us in the world today. Although it has been around for billions of years, this part of its story starts more than six thousand years ago when a volcanic eruption hundreds of times larger than Mt Saint Helens literally blew the top off Mt. Mazama. Located in the Cascade Mountains of Southern Oregon, this natural event formed what we now know as Crater Lake. In the process, millions of tons of mineral-rich volcanic ash was deposited on the area which drains into Upper Klamath Lake, creating a perfect spawning ground for the blue green algae, *Aphanizomenon flos aquae*, that flourished there, soaking it all up like a giant organic sponge. So rich, in fact, is this natural fertilizer that the annual algae bloom, over two hundred million pounds, makes Upper Klamath Lake one of the best biomass producing areas in the world.

The lake freezes every year killing most of the algae which settles to the lake bottom to compost with the significant amount of bird droppings deposited by the myriad of birds that visit. This compost is thirty five feet deep in some places. The algae has adapted to take advantage of the two abundant sources of nourishment in Upper Klamath Lake, high desert solar energy from the sun, and the nutrient-rich sediment in the lake. It operates a little parachute to rise to the top of the lake to feed on sunlight, then returns to feed on the bottom. Unlike soil-based agriculture, a nutrient-rich aquatic environment provides optimum nutrient exchange. Rather than commercial crops competing for the few remaining nutrients left in our farmlands, Upper Klamath Lake algae have sixty times more nutrients than they need to fulfill their nutritional requirements. They represent a life form living in abundance. Our chemically-based agricultural system produces foods that are little more than a hollow shell, often containing more chemical fertilizer and pesticide residues than nourishment. A can of spinach serves as the example for iron availability in commercial agriculture. One can of spinach in 1940 contained as much as seventy five cans today! But where were the soils at in 1940? In the late 30's, the USDA released a report indicating that our soils were virtually bankrupt. Remember what a real tomato tasted like? The missing taste in tomatoes are minerals, ground up pieces of the Earth. Chemical agrobiz doesn't contribute minerals, so as crops gobble up the minerals year after year, where are they going to come from? Because this flavor is missing in most of our food, we add flavoring agents, like MSG, to fake out our taste buds. But inside, there is a growing hunger for elements vital to our continued growth and health. We call it false hunger. For we surely eat enough, and yet remain deficient. What's the solution? Grow your own food? Even organically grown produce may not contain all the important trace minerals we need to maintain health. In fact, the natural wild-growing blue green algae in Upper Klamath Lake may be one of the only remaining expressions of nature's balance and abundance remaining in this developed (polluted) world. Besides a storehouse of vitamins and minerals, it contains significant amounts of beta carotene and other carotenoids, chlorophyll, and an amino acid profile ideal for our bodies. A few grams of freeze dried algae will not replace a diet consisting of good organically grown produce and grains. However, by supplying the necessary trace minerals, it enables us to absorb and utilize the mineral factors in our food. When it comes to maintaining a healthy diet, nature's first food, algae, may be our best hope.

Totem

Growing up in Michigan, my earliest experience with totems was with totem poles. They were wooden poles carved with the shapes of various heads and symbols. They seemed interesting, but I had little notion what they were about. In my explorations of the 60's, I had occasion to read the accounts of Carlos Castaneda with his teacher, Don Juan, and was again introduced to the notion of allies, plant and animal spirits that could impart knowledge, guidance, and power. I ventured, in 1984, to Emerald Valley, home of an herb school in Sonoma County operated by a remarkable folkloric herbalist, Rosemary Gladstar. My professional training there included sitting with a plant for an extended period in an attempt to "communicate" with it. I was attracted to the local Camomile, also known as Pineapple Weed, or Manzanilla, growing out of the rocks in the parking area around our house, so I settled in to "talk" with the plants there. After some time, I began to feel that something was being communicated. I reached a deeper

sense of what this little plant held for me as an herbalist and teacher. I wrote about my experience with the plant, and turned in the assignment. A few weeks later, we were hiking on a mountain meadow, identifying the local herbs. When we stopped, I inquired about the lake where we had planned to have lunch. It had grown late, and the lake was too far. Leaving the group behind, I jogged the extra mile to the lake, and had a refreshing swim. Jogging back, I turned my foot on a rock, and seriously sprained my ankle. As the pain in my foot began to pound, I realized that not only would I have difficulty walking on it, but that I had somehow become disoriented, and didn't know which way to go to rejoin the group to hike back down the mountain. As my head lowered with some degree of dejection, I noticed, at my feet, my friend and totem, Camomile! Without much thought or intention, I picked some and began to eat it. No sooner had the Camomile touched my lips, than the pains in my foot began to subside. I relaxed. A sense of grounded relief filled me, and I had a notion of the direction to locate the group. With some effort, I made the top of a small hill to find my group in the distance, making preparations to hike out. I rejoined them, and managed to make it down without further incident. For several weeks following I was on crutches, so serious was the sprain. Looking back, I was amazed that I was able to walk on that foot at all. Since that day, twelve years ago, I have connected with the spirits of other plants. They have instilled a sense of excitement and gladness in people meeting them on walks in canyons and the mountains of San Diego. It is my hope that, in this column, Herb Talk, some few may hear the message of the plants. We are not alone. Wherever we travel, our plant allies are around us. They are just waiting for us to reach out to them, to communicate some need, or just say, "Hello."

Rosemary - An Herb to Remember

A shrubby evergreen herb graces my garden. It requires so little care that one may not give proper notice until beautiful blue flowers provide evidence of its royalty among plants. It holds a special position among herbs from the symbolism attached to its many virtues. Rosemary (*Rosmarinus officinalis*) is a larger member of the mint family, all of which seem to have a double-edged effect on our physiology. They are at the same time stimulating and relaxing. I particularly enjoy a Rosemary bath to relieve sore muscles and joints after a few hours playing hoops outside on concrete. It's also great in a footbath. This is nothing new. Rosemary's uses have been well known and documented since ancient times. It has a reputation for strengthening the memory. Due to this, it became an emblem of fidelity for lovers. It was used at weddings, but also funerals, and for decking churches and halls at festivals. An old French name, Incensier, refers to its use as incense in religious ceremonies, and in magical spells. It was a custom to burn Rosemary in sick chambers, and in French hospitals to prevent infections, and to purify the air. In Spain and Italy, it has been considered a safeguard from witches and evil influences. The Spaniards revere Rosemary as one of the bushes that provided shelter to the Virgin Mary in her flight into Egypt. They call it *Romero*, the Pilgrim's Flower. It has been said that Rosemary grows better in a garden where the mistress is master of the household. A liniment formula dated 1235, said to be in the handwriting of Elizabeth, Queen of Hungary, is prepared by putting 1½ pounds fresh Rosemary tops in a gallon of white wine and allowed to stand for four days. She rubbed the liniment on her partially paralyzed arms, legs and feet until she was completely cured. We make the now famous "Hungary Water" with vinegar, rather than wine. Rosemary is also great for the hair and scalp. It stimulates growth, imparts a pleasant odor and color, and helps prevent dandruff. Rosemary tea, made by steeping the young tops, leaves and flowers in warm water is a good remedy for headache and nervous depression, colic and colds. Since some of Rosemary's important medicinal constituents are aromatic oils, it is best to steep it with the lid on the pan to prevent their escape. Rosemary also contains high concentrations of minerals such as calcium, magnesium, phosphorus, sodium and potassium. The electrolytic balance of fluids surrounding the nerves and cardiac tissues relies on these minerals. One primary use is the lowering of blood pressure. The flavonoid pigment diosmin in Rosemary decreases capillary permeability and fragility, contributing further to cardiovascular health. In Germany, among doctors still practicing natural medicine, Rosemary is considered a valuable remedy during a convalescence and during old age for quickening and quieting circulation, for rheumatism and for neuralgia. So much has been written through the millennia extolling the virtues of Rosemary, it is a challenge to give it justice in a few paragraphs. Perhaps the most famous quotation, from Shakespeare's *Hamlet*, is both a

tribute to this revered herb and a gentle reminder that we not overlook it, "There's Rosemary, that's for remembrance."

Using Herbs Safely

Primitive people and wild animals have been using plants for medicine since before our recorded history. They enjoy a natural alliance with the plants and are guided by an instinctual wisdom in their use of them. Modern people, having, to some degree, lost this connection, have come to rely on an intellectual understanding of herbs, and how to use them safely. We find that a little education is invaluable in this respect. That's why we have been teaching herb classes in San Diego for the past twelve years. With an understanding of herb theory and some vocabulary, we may access a massive base of information about using herbs in safe and effective amounts. A number of good books have been published on the subject. There are even several computer softwares available.

One way to relieve people's confusion about herbs is to reconnect them to the herbs in the fields around us. We encourage students to look beyond the plant's physical manifestation, and attempt to connect with the spirit of the plant, to become intimate with it. Native plant healers rely on this alliance with the plant spirit to heal. Poison oak has been a valuable ally for this lesson. We are taught to avoid contact with poison oak. And yet the natives of this region wove it into baskets! They also used it medicinally, chewing the leaves a bit and applying them as a poultice to draw out poisonous venom from snake bites. When I demonstrate my relationship with it, I eat some leaves and rub some on my skin, explaining that it is much like it was my dog that I was playing with. It won't bite me because I have established a relationship with it. But if someone else came up to it and started messing with it, they might experience a totally different response. They might even get bit! They might think the dog's teeth are a problem. But if the dog was their ally and those teeth were protecting them from harm, they would view them in a much different way.

There are some herbs that are very powerful. Their active medicinal principles are their "teeth." Alkaloids, glycosides, tannins and essential oils can be seen as potentially dangerous if viewed or used as isolated components of an alien life form. It would seem necessary to require special pharmaceutical experience to use them. Yet these principals exist in an immaculate harmony with other components in the plant body. After all, plants have had several billion years to evolve, physically and spiritually. That is why they are so helpful in restoring our physical balance and harmony of spirit.

Of course, there are a few plants that are extremely powerful, and should be treated as such. These include some of our garden favorites including Oleander, Foxglove and Larkspur. Children should be warned not to put any parts of them in their mouths. The lovely Larkspur, Delphinium Consolida, contains an alkaloid, Delphinine, that is an irritant poison, contained especially in the seed. An alcohol extract of the seeds acts as a parasiticide and insecticide. We have used the extract to poison head lice. It was used in the trenches during World War I for this purpose.

Many herbs are mild in action, not containing substances that would cause concern in almost any dose. These include the condiment herbs, such as parsley, garlic, and ginger. But there are also a great number of mild tonic herbs that can be used like food, such as nettle, oatstraw, and the sea weeds. The FDA maintains a list of herbs that are Generally Recognized As Safe (the GRAS list).

Used with respect and understanding, herbs can be valuable tools in our pursuit of improved health. As with any tool, it is the knowledge and experience we gain that allows us to use them safely.

How Sweet it is!

What allows me to sleep well at night is the knowledge that while I sleep, agencies of our government are vigilantly protecting me from harm. The FDA in particular has been working late to keep a potentially dangerous herb from creeping into our food supply. This perennial shrub, Stevia rebaudiana, is from the aster family. It contains two compounds, stevioside and rebaudioside, that have been linked to infertility in rats and mice. Of course, the problem with these studies, like those cited to keep comfrey out of the food chain, is that they involve ridiculously high concentrations of isolated principles forced down these lab animals. We would be about as well served if the government placed signs above drinking fountains warning that consumption in excess of 5 gallons a day might pose a threat to our health. So are these public servants just stupid, or are they protecting something besides our health? A review of what we know about

this menacing weed may serve to illuminate us. Although it has been used for centuries in its native Paraguay, where it is known as kaá hè-é (honey leaf or sweet leaf), it was first described by Moisés S. Bertoni, an Italian botanist, in 1899. In one published observation in 1905, Bertoni states: "The fact is that the sweetening power of kaá hè-é is so superior to sugar that there is no need to wait for the results of analyses and cultures to affirm its economic advantage." The FDA obviously disagrees. Under the current law, stevia may be marketed as a food supplement. It poses no threat as such. But if you try to market it as a sweetener, it is regarded as an "unsafe food additive." So it isn't the substance that's got the FDA up in arms, it's the words on the labels! More specifically, it seems a threat to patented chemical sweeteners. There is strong evidence that initial complaints against stevia's use as a sweetener in herb tea blends came from certain players in the \$700 million US artificial-sweetener industry. What are they afraid of from this little-known herb? It grows naturally. It is hundreds of times sweeter than sugar. It contains about as many calories as water. It not only may be considered a safe sweetener for those with blood sugar regulation problems, but is actually therapeutic, helping the body to regulate blood sugar. It has been studied extensively, especially in Japan, where it has been found without health risk and has, since the 70's, been incorporated in numerous foods including candies, ice cream, pickles and soft drinks (including some manufactured by Coca-Cola). In 1988, in fact, refined stevia extract commanded a 41% share of Japan's high-intensity sweetener market. Based on overwhelming support from research and widespread use in human populations, Lipton and several herbal tea manufactures in the US have petitioned the FDA to consider stevia as a sweetener in the US. But the FDA won't budge and has been accused of imposing "a restraint of trade to benefit the artificial-sweetener industry." One reply from the FDA probably best sums up their position, "if we wanted to make carrots against the law, we could do it." Yes, it is comforting to know that such a powerful agency is looking out for us. Heck, the government is even going to put fluoride in the water to further protect us. Never mind that the Environmental Protection Agency scientists endorse the initiative prohibiting fluoridation. Sleep well San Diego, Big Brother is watching.

Treating Depression with Saint John's Wort

It has been said that the replacement of pharmaceutical antidepressants with Saint John's Wort constitutes "A significant milestone in psychiatric medicine." This is a remedy which is by no means modern. Nor are its therapeutic applications limited to its antidepressant action. We employ the fixed oil as an external remedy for healing wounds and inflammations, especially to damaged nerves. It has also been studied for its anti-viral activity. The name Hypericum derives from the Greek meaning "over an apparition." For centuries in Europe it has been hung above the door on the Summer Solstice to repel evil spirits. Also known locally as Klamath Weed, it proliferates in wild abundance in disturbed areas in Northern California as well as throughout the world. The Christianized common name of Saint John was bestowed by Benedictine monks in an attempt to discourage its pagan associations. The pagans took little notice. The term wort refers to herb. In fact, when Merlin called a young (later to become King) Arthur "Wort," he was calling him herb or sprout. Much has been said about the active compounds in Saint John's Wort, the dianthones and flavonoids, and especially one relatively unstable compound, hypericin. The published recommendation for achieving an antidepressant effect is 300 mg of a .3% hypericin preparation taken three times a day. What should be understood about Saint John's Wort, and all herbs for that matter, is that although certain compounds seem to be primary in a plant's therapeutic application, it's the whole plant part, with all its components that must be seen as the healing agent. If you were to study a surgeon in action, you might assume that the hands alone were performing the operation, since they would be the only part actively interacting with the patient. But without the eyes to guide the activity, and a consciousness to differentiate the actions, the random slicing and dicing would have little therapeutic advantage. It is therefore highly questionable whether taking a plant isolate like hypericin offers any real benefit. When taking Saint John's Wort, it is necessary to assure that the remedy is made from whole flowering tops. Europeans have been using a variety of Saint John's Wort products for the past fifty years to treat mild to moderate depression, restlessness, anxiety and/or nervous excitement. The whole plant extract acts as a mood elevator, without impairing mental functions or the ability to operate equipment. It is said to improve concentration and the ability to cope with life situations. For most people, 40 drops of a liquid extract of the flowering tops (with leaves) taken three times a day provides a result. The constituents may be extracted in hot water, oil and alcohol. Alcohol provides the most complete extraction. Since the compounds can be unstable, it is

important to extract from fresh or recently dried material. Only organically grown plants or those harvested from the wild should be considered. Although some people get an almost immediate response, it normally takes several weeks to begin to feel a noticeable effect. You should definitely experience something within four to six weeks. And what about taking it concurrently with pharmaceuticals? Although some warnings against this have been issued, there is a good body of evidence that reducing pharmaceutical use, while taking the herb is both safe and effective. It is interesting to note that both the anti-viral and the mood elevating properties are augmented by sunbathing. These sessions should be relatively short, especially at first, since phototoxicity as manifested by blistering and ulcerations can result from exposure while taking this herb. If you are self-medicating with Saint John's Wort (or any herb) it is advisable to start with a small dosage (patch test) and adjust into the therapeutic dosage range slowly, while monitoring your experience. Remember, by self-medicating you are taking responsibility for the consequences of your actions.

Herbal Alteratives

There is an array of mood-altering medicines in pharmaceutical use, as well as a number of legal and controlled plant substances that alter the psyche or consciousness. So we are familiar with the concept of alteration. Herbal alteratives are known as blood purifiers because by cleaning up the blood, they alter our internal environment. This doesn't happen overnight, but gradually over time. They are employed for toxicity conditions of the blood, infections, arthritis, cancer and skin eruptions. Most natural healers agree that when the blood is pure, no disease can reside in our bodies. Blood purifiers get rid of toxicity by stimulating the release of toxins, mostly via the skin, kidneys and colon. The liver is also an integral part of the elimination process. So herbs that stimulate these organs to exercise their elimination functions can help the person with pimples, as well as someone with cancer. Besides eruptive skin conditions and eruptive anger, physical symptoms indicating the need for blood purification include dark circles under the eyes (weak liver function), bags under the eyes (weak kidney function), nervous disorders, digestive disturbances, loss of hair, eyesight and hearing, stiff joints, low vitality and frequent infections. A familiar picture? Actually, the modern world we live in is quite a challenge for our processes of elimination. Besides the natural toxins that are by-products of our own metabolism, we ingest a load from our Standard American Diet. Junk foods and even processed "health foods" contribute to the problem. The air and water are loaded with toxic materials. When we get so toxic we lose our natural ability to manage pathogens in our system, we get an infection, which generally makes us feel sick. Much of the awful experience of being sick is from the incredible amount of toxic material produced by an overrun of pathogenic microorganisms in our system in an infection. But, to a lesser degree, any elevated level of toxins will make us feel less than optimal. If you feel you could benefit from purifying your blood, you may want to know how. In the old days you'd look for one of those kinetic candy-striped poles, the barber pole, an icon for blood running down an arm. Barbers were known for their fine cutlery, and were accomplished at bleeding folks as well. They even kept jars with leaches to carry out their work. The idea was that disease was the result of bad (impure) blood, and that by getting rid of some, the body would make fresh new blood, The trick is not to take too much. George Washington died after frequent bloodlettings administered for a bad sore throat. Herbal blood purifiers don't release blood, but clean it up (recycle it). The herb preference would depend on which part or parts of your elimination process needed help. An herb like dandelion would be great for almost anyone. It helps digestion, stimulates both the liver and kidneys, and helps alkalize the system. To stimulate elimination through the sweat, diaphoretic herbs such as elder and sassafras are normally taken in hot teas. For eruptive sties and boils, burdock is recommended. Red clover is of great benefit in the process of assimilation. Its usefulness in cancer have found it a place in all the modern cancer teas with the exception of Essiac. Other common Western blood purifiers include alfalfa, mallow, nettles, plantain and echinacea. When taking blood purifiers, remember that when releasing toxins a "cleansing cycle" sometimes occurs, producing symptoms resembling the flu. Skin rashes may even temporarily become aggravated. The more toxic a person is, the more slowly the elimination must proceed. Those with serious health concerns should consult a health professional before endeavoring to cleanse.

Spring Tonic for the Spirit

Ah Spring! Longer days. Warmer days. Abundant rain provided by el niño. The moisture triggers a transformation within the heart of little seeds, spurring them on their life cycle as a cog in the great wheel of life, joining the divine dance. We've discovered some of these green beings in our garden, dancing wildly in el niño's more blustery moments. One, particularly, seems to be waving at us, trying to get our attention, inviting us to join the dance too. Suddenly, a faint odour, growing ever stronger now, emanating from this beckoning plant somehow triggers remembrance at a very subtle level. In this remembering is our spirit lifted. We're drawn to hundreds of violet spikes. Between its violet rays and powerful aromatics, Lavender evokes greater relaxation in states of higher spiritual ecstasy, deeper states of meditation, and oneness with the dance. The dance is performed with our feet firmly rooted to the earth, while our spirit soars. This is the signature of Lavender. Strong enough to wake us up. Gentle enough to guide us in the ways of gentleness. It is a restorative and tonic against faintness. We've seen the image of the Southern bell in a fainting state, waving her hanky before her face. The act would have little intrinsic value save for the application of Lavender essential oil to the hanky. The lasses then were mostly fainting from too-tight corsets, but that's another story. The essential oil of Lavender is also quite wonderful for the outside of us. Its association with the planet closest to the sun, Mercury, may give insight to Lavender's ability to heal burns. In fact, its healing influence on burns was revealed when a French cosmetic chemist, Rene-Maurisse Gattefosse, suffered a third degree burn in a lab explosion. In his extreme pain and precipitation, he plunged his arm into what he thought to be a pot of water, but soon realized that it was Lavender essential oil. The oil relieved some of the pain and accelerated the healing. He continued to apply the oil topically and experienced the absence of scarring. It has other applications, as well. It is very disinfecting and can be effective with wounds. A few drops in a hot footbath helps relieve fatigue. It is said to relieve toothache, neuralgia, sprains, and rheumatism. In disorders characterized by debility and lack of nerve power, as in paralyzed limbs, Lavender will act as a powerful stimulant. And, although a great deal has come to light recently about the virtues of Saint John's Wort in treating depression, there is little in nature that acts more surely and immediately than Lavender. It is an especially good ally to women. There is an old tradition of tying a bouquet of Lavender on each wrist during childbirth to give courage, support and strength to the mother to be. My teacher and mentor, Rosemary Galdstar, writes in her book, *Natural Healing for Women*, "Today most women are introduced to lavender as a potpourri and sachet herb. Though certainly these are two of its many uses, lavender is far more than just a lovely aromatic flower. A potent healing plant, it is a crone among herbs - wise, ancient and powerful."

The Sum of Us

While teaching an herbal fundamentals class in the holistic health practitioner program at a local massage college, we got deep into the relationship between plants and people, and ultimately, among all things animate and inanimate. The concept of treating the whole body or the whole person, including body, mind and spirit brought up the question of where the body, or for that matter, the person began and ended. This came up in the discussion of secondary compounds, substances that the plants manufacture, although they have no particular use for them. This seemed at first curious since the plants have had billions of years to develop their routine. Why would they devote energy and resources manufacturing compounds that have nothing to contribute to their functioning, survival or well-being? These same compounds have a medicinal effect in *our* bodies. Curious, yet if we look into these bodies of ours, we find something quite similar going on. Our liver produces a substance we call bile which has no immediate use in the liver, but acts to emulsify fats in the small intestine to facilitate their absorption and triggers peristaltic action in the large intestine. We accept this notion as specialization of function within the organs of the larger organism. In fact, each individual cell within us may be seen as an autonomous living thing, hooked into the jungle telegraph via neuropeptides and, thus, functioning as a part of the whole. This we can accept. What seems a bit of a stretch for us is to extend this concept outward to gain a perspective of each individual organism (those autonomous elements we identify as ourselves) comprising but one part of a larger whole. If we see ourselves in this way, the action of the plants fits into our model of specialization of function, with one part of the whole dutifully providing something for another part. If we hold to our egocentric notion of ourselves as isolated and apart from the whole, the connection between us and the plants seems ludicrous, if not sacrilegious. God made us, after all, the crown of creation, in his image. The rest is all set and scenery in

the grand drama, with us (each one of us) as the star. At one point we believed the Earth a flat and stationary stage upon which we made our entrance and uttered our lines. We now see ourselves in a much larger set, and yet we cling to a very limited notion of ourselves within this ever growing universe. And what, pray tell, are we contributing to this wonderful organic whole? Besides pollution, nuclear and industrial waste, global warming, herbicide, pesticide and genocide. We seem more a crown of thorns than the crown of creation. And yet, there is something divine about us. But that same divine spark, elan vital, life force, conscious creative energy animates all of creation. Life is sacred. Not just in people. This notion is not new. The peoples who inhabited this land before us held these principles. They treated the plants and animals as their brothers and sisters and lived in harmony with nature. The Great Spirit was seen to connect every thing in a magnificent garland of mutual respect and admiration. They were connected and interconnected, not separated and isolated. If we isolate the medicinal compounds in plants and apply them without their associated (so called inert) parts, we create imbalance and experience side effects from the medicines. If we take these same compounds within their natural matrix of plant materials, we don't get those side effects, but a balanced and natural medicine. At some point, this must become clear to us. We are part of a much larger whole. Cut off from this larger part of ourself, we represent imbalance, and the side effects of our actions are killing the planet and everything on it. Holistic health isn't just about addressing the whole person. It's about owning our connection to the whole of it all, becoming responsible for the whole of it all. And it's about experiencing the joy and harmony that connection brings.

An Immune Tonic for the Little Things that get you down

With cold and flu season bearing down on us, we are faced with the question, once again, of how to maintain our integrity against an array of invasive micro-organisms. In answer to this, modern allopathic medicine has largely abandoned natural substances with their safe and effective actions in favor of pharmaceutical antibiotics. And yet, the very nature of these chemical substances, along with the incredible adaptability of micro-organisms, has not only doomed this approach to failure, but has, in the process, acted to selectively breed strains of pathogens that now exhibit resistance to all known antibiotics. As a result, more and more people are returning to traditional herbal medicines which have demonstrated their efficacy in this fight for thousands of years.

One of the most popular herbs in the world today is Echinacea. A native of North America, it was introduced to the settlers by the American Indians who had been using it for at least 400 years. Physicians quickly adopted echinacea and became skilled in its application. By the first decade of the 20th century echinacea had become one of the mainstays of American medicine and was employed in the treatment of a wide variety of conditions such as typhoid, malaria, abscesses, reptile and insect bites, cancer, syphilis, tetanus and even rabies. Also known as prairie doctor, Kansas snake root and purple cone flower, this incredible immunotonic has been the subject of exhaustive studies in the past thirty years. These verify that echinacea is an immune tonic in the sense that it will either increase or decrease white blood cell production depending on what the body needs for balance. It also increases phagocyte (eating cell) activity and has a mild antibiotic property specific to some pathogens including strep and staph. It has been demonstrated that small doses of echinacea impart immunity against many common infections as well as allergic ailments. Large doses have been shown to treat acute infections by increasing the body's nonspecific resistance, as well as specific immune functions, especially phagocytosis, the release and function of white blood cells that combat and neutralize pathogens and their toxins. Since echinacea is completely nontoxic, we recommend doses as high as 5 ml of the tincture per hour for short periods (a day or two). Licorice root may be combined if one experiences nausea from taking large amounts. One of echinacea's constituents, a mucopolysaccharide (a very large glob of sugar molecules) acts to alert the immune response. Probably its most important immune function is the ability to strengthen the first line of defense, the mechanical resistance in the tissues. Here echinacea exerts a neutralizing effect on the enzyme hyaluronidase, secreted by many pathogens to break through the connective tissue layer protecting our body cells from infection. A substance in echinacea actually attaches to the receptor site on hyaluronidase, improving our tissue's ability to keep an army of pathogens at bay. Hyaluronidase is also present in snake, spider, and bee venom and even the head of sperm cells. For this reason, echinacea is very effective for snake and insect bites and may prove useful in birth control. We normally use echinacea in combination with goldenseal, which kills pathogens on contact, while increasing white blood cell production, and with chaparral, which contains NDGA (nordihydroguaiaretic acid), an antioxidant known for its antiseptic, antibiotic, antiviral, parasiticide,

and antitumoral properties. Studies conducted at the Institute of Traditional Medicine have shown this combination to greatly reduce the risk of infection during flu season and to minimize the duration of infections once contracted. Best of all, these natural herbal medicines leave the body stronger and less likely to catch the next nasty that passes among us.

Pesto Change-o

A common food with an uncommon flavor, pesto, has brought an ancient and mysterious herb to the forefront of our modern culture. Basil (sweet or common basil), *Ocimum basilium*, is an annual growing to 3 feet. The stem, like other mints, is quadrangular (square). White flowers appear in whorls in the axis of the leaves. There are several varieties, differing in the size, shape, odor and color of the leaves. The strong aromatic scent is very much like cloves. A likely Greek derivation is from *basileus*, a king, because it has been said of basil 'the smell thereof is so excellent that it is fit for a king's house.' Native to India where it is known as *Tulsi*, it is sacred to Krishna and Vishnu, and is cherished in every Hindu house. Probably because of its long history of disinfecting and vivifying malarious air and against malarial fevers, it has become cherished as the protecting spirit of the family. The essential oil also acts as an effective insect repellent, especially for flies and mosquitoes (a carrier of malaria). Every good Hindu goes to his rest with a basil leaf on his breast. This is his passport to Paradise.

One unlikely derivation of basil is from the Greek *basilisk*, a fabulous creature that could kill with a look. This theory may be based on a strange old superstition connecting basil with scorpions. It is observed that scorpions do rest and abide under pots in which basil is planted. Parkinson says of it, 'being gently handled it gave a pleasant smell, but being hardly wrung and bruised would breed scorpions.' Superstition went so far as to affirm that even smelling the plant might bring a scorpion into the brain. Culpepper says: 'Hilarius, a French physician, affirms upon his own knowledge, that an acquaintance of his, by common smelling of it, had a scorpion breed in his brain. Being applied to the place bitten by venomous beasts, or stung by wasp or hornet, it speedily draws the poison to it. -*Every like draws its like.*' The juice of the leaf is applied both topically and internally for this purpose. The natives of this region used the leaves of poison oak as a poultice for this same purpose, that is, drawing out poisonous snake venom.

In aromatherapy, basil is considered to work more on the mind or emotion than the physical body. Enthusiasm develops when it is used. It enables individuals to know their emotional selves better. Intuition for better decision making is enhanced. Its use in enhancing appetite has gradually created, in mankind, a zest for life. It should be considered when the mind is the predominant factor in sickness relating to respiration, digestion and the nervous system.

Today, basil is used in medicine and for culinary purposes, especially in France. Although warming to the taste, it is a cooling herb. A standard infusion (one ounce of leaves steeped in a pint of warm water) has traditionally been employed for indigestion, fevers and flu, kidney and bladder troubles, headaches, cramps, nausea, vomiting, constipation and nervous conditions. What our family likes it the most for, though - is pesto pizza!

Herbal Therapeutics In Perspective

Plants have been adapting and evolving on this world for several billion years. They've figured out how to live on sunlight and to use its energy to synthesize the primary compounds necessary for their metabolic functioning. You'd think they would have their act together by now. Yet our scientists tell us that plants also synthesize and store compounds that don't have anything to do with their biochemical processes. Nothing whatsoever. They call these secondary compounds and frankly admit they don't have a clue why plants make them. Whatever the reason, we are the benefactors, as many of these compounds turn out to be the medicinal principles of our healing plants.

People around the world have been using herbs for their therapeutic properties for thousands of years. Studies of other animals have shown that they use herbs for their therapeutic benefits as well. Herbal therapies are general ways in which the body responds to the active medicinal principles in plants. They stimulate secretions of glands, relax muscles, cause elimination of toxins, calm nerves, nourish and tone

tissues, and balance energy of body systems. Most pharmaceuticals in use today are based on these principles originally isolated from plants. Many are now synthesized in the laboratory and are produced as isolated concentrates. Their effects are quick and powerful. Unfortunately, various undesirable side-effects are encountered when these isolated concentrates are introduced into the body without the benefit of natural buffers found within the balanced biochemical matrix of medicinal plants. These concentrated principles are generally prescribed to suppress symptoms (the basis of modern allopathic medicine). By removing the warning signs of an imbalance, we fail to accept responsibility for having created it, and for making corrections. In doing this, we drive the imbalance deeper. When symptoms of a more serious nature result, we force our allopathic practitioners to use ever more powerful forms of treatment including radiation, toxic chemicals, and surgery.

The basis of herbal therapeutics in holistic medicine is recognition of the natural process of healing. Symptoms are the body's way of communicating the need to make some corrections in our daily habits. These include changes in diet, exercise, mental attitude, emotional attitude, and our methods for managing stresses in our lives. Therefore, herbal therapeutics are effective in conjunction with other natural healing modalities such as emotional and dietary counseling, flower remedies, exercise programs, meditation, play, and other stress reducing practices. Where practiced, improved sanitation and proper diet have done more for health than any form of medicine that has ever been practiced. In the absence of these corrections, no form of therapy will enable the body to heal itself. Symptoms can also point to the organs or systems needing some attention. In this effort, herbs are gentle and gradually allow the body to repair itself. Ideally, the factors that led to the imbalance are brought to light and the necessary changes made to prevent recurrence. We become smarter and the body becomes stronger.

Yang go Bongo

How to fix guys in 700 words or less! If you asked the ladies, you could probably come up with a list of at least 700 things that needed fixin. For more information about herbal strategies for maintaining healthy men and boys, check out *The Male Herbal* by James Green, herbalist.

The organs and hormones that make us distinctly male account for our unique abilities as guys, but also provide us with our greatest challenges. We have a penis, testes and a prostate gland. Contrary to popular belief, we don't think with our penis, although we do seem to be somewhat ruled by our testosterone. One unique challenge we do have is getting and maintaining an erection. We are responsible for some degree of performance. As an herbalist, I have been advising men (and women on behalf of their men) about herbal aphrodisiacs that might stimulate sexual desire and performance. A simple internet search for sex inevitably leads to the latest greatest herbal remedy for the sexual blahs. *Avena sativa*, or wild oat (also the domestic oat) is really more of a tonic for the nervous system which gives a clue as to where our sexual problems generally have their root. Drinking a tea of oat straw on a regular basis is a simple way to bring some balance in this area and get a guy "feeling his oats". Other examples of herbs that have been employed to help us with our sexual function include damiana, ginsengs, sarsaparilla and yohimbe. One of my favorites is an arurvedic herb known as ashwagandha, *Withania somnifera*. When the root of this esteemed herb is taken in a tea as a milk decoction and sweetened with honey it is said to inhibit aging and build up strength by catalyzing the anabolic process of the body. It acts as a tonic for the hormonal system, and is recommended for sexual debility, low sperm count, infertility, impotence and to improve the condition of the semen. Ashwagandha translates to *sweat of the horse*, a reference to its peculiar flavor. It's reputed to imbue a guy with the sexual stamina of a stallion. All evidence I've heard from associates indicates that it does live up to its reputation. We call it the honor system, get honor and stay honor.

Another male challenge is maintaining a healthy prostate gland. This walnut-sized organ lies just below the bladder with the tube exiting the bladder (the urethra) passing directly through it. The chances of this organ enlarging (swelling) later in life are extremely good unless we take care of it. Prostatitis, also known as benign prostatic hyperplasia (BPH), has its root in stress (not just sexual), dietary excesses, especially alcohol and caffeine, lack of regular exercise, zinc deficiency (we lose zinc in semen) and as a secondary infection of another infection such as venereal disease, or even an abscessed tooth. Since the urethra passes through the prostate, prostatic swelling may interfere with the passage of urine. This can lead to distention of the bladder and damage to the kidneys. To prevent or cure this condition drink plenty of pure water, learn to relax, laugh and play, eat seeds high in zinc and linoleic acid (vitamin f) such as pumpkin seeds, and take

vitamin and mineral supplements: 200-800 I.U. vitamin E (mixed tocopherols), calcium/magnesium 400-600 mg, and zinc picolinate or amino chelated zinc 20-50 mg. Herbal therapies are also very effective with saw palmetto leading the pack. The berries of this indigenous palm, when used regularly, help maintain a healthy hormone balance in the prostate, preventing or reducing enlargement, and help with the force of the stream of urine, thus preventing urine backup from causing other collateral damage to the urinary tract. Saw palmetto is normally taken in extract form (20-30 drops 3 or 4 times a day), combined with nervines such as scullcap and valerian to help with anxieties.

Men produce ten times more testosterone than women. This hormone gives guys greater capacity to develop muscularly. It also accounts for our more yang energy and aggressive tendencies. Properly channeled, this masculine aspect of the creative principle can be very constructive. Pent up inside a guy who is hobbled emotionally by program and development, these can find outlet in destructive, often brutally destructive behaviors. Our unique challenge is to find creative outlets for this force that wells up within us. Toward this end, regular vigorous exercise has to be considered fundamental to our health and well-being. Ideally, we can find something we're really into that gives us the cardio-vascular and stress-relieving benefits while keeping us fit and trim and burns off some of our excess yang energy. I love basketball, so it's really easy to find the time to play the game. Surfing and body surfing are also great ways to have fun while working out. Afterwards I feel relaxed and it makes me feel good about myself. Something else that helps keep me in balance is meditation, getting in touch with myself. For all of our physical strength, men seem to take less notice of the source of strength within ourselves. This association with our yin aspect brings balance to our predominant yang energies. It's one of those things like stretching and yoga. We don't always make time for them, but when we do we always remember why we need to unwind what we wind. This brings us to our most fragile part, our heart, our chamber of feelings for ourselves and others. There are some wonderful herbs for our often broken hearts. Hawthorn berries soaked in a good brandy for a few weeks make a most agreeable cardiac tonic that, over a period of time, treats weakness and/or failure, hypertension, arteriosclerosis and insomnia. Hawthorne nourishes the heart and is a true tonic for it, either stimulating it or depressing its activity as needed. The blossoms and leaves are sometimes included in the extract or tea. Our emotional hearts generally need tonifying as well (we could probably use a hug). There are statistics that suggest that little boys are hugged and held 60-80% less than little girls. Of course we don't want less hugs for the girls, just an equal amount for the little guys. The inability of men to open up and hug may have some root in our childhoods. That and our homophobia. I am happy to love and hug and kiss boys and girls of all ages. Grandparents can be like that. Lucky me.

What's Up Dock

Yellow dock is a common weed, found growing around wet places nearly worldwide. Native to Europe and north Asia, this herb is now considered an invasive alien in many places, including San Diego. It is being removed from some canyons here in an effort to reestablish the plant populations to more native varieties. The generic name for yellow dock, rumex, is derived from the Latin "rumex" meaning a lance in reference to the shape of the leaves. Its species name, crispus, is from the Latin "crisped" in reference to its leaves being crisped or curled at the edges. It is also, for this reason, known as curly dock.

The root of Yellow dock is high in iron and is used in the treatment of anemia and for nourishing the spleen. It's also combined with other herbs in herbal formulas treating sluggish digestion, skin eruptions, constipation, hepatitis and jaundice. Digging them is like mining gold. If your shovel nicks the root, it reveals its yellow core. The yellow color is an indication of affinity for the liver. Unlike most roots which are generally harvested in the fall after the energy of the plant has receded back into them, the yellow dock root is dug in March. It's an excellent spring tonic, helping to clear toxins that may have accumulated during the long winter. The bitter taste of the root stimulates bile which improves elimination. They are also tonic and astringent, helping to tonify the lining of the small intestine to improve food absorption and fat metabolism. Yellow dock may be taken as a powder, in a tea or tincture or in a syrup. The tea, administered in wineglassful doses, is made by pouring 1 pint of boiling water on 1 ounce of the powdered root. The syrup is made by simmering ½ pound of crushed root in a pint of water, sweetened, and taken in teaspoonful doses.

The root is also useful externally for skin cancers and tumors. I combine the alcohol extracts (tinctures) of yellow dock root, blood root and poke root in an emulsion for skin cancer. Yellow dock root also makes an excellent salve for itchy, inflammatory skin diseases and swelling of glands. Its astringent properties make it useful in suppositories for treating bleeding hemorrhoids and as an abrasive dentifrice, especially in cases of spongy gums.

The eradication of this useful herb is part of a program to eliminate certain alien plants from our “natural” parks in San Diego. With its passing from these areas, will also follow other “aliens” targeted for removal, including fennel and eucalyptus. What I find interesting is that the native people here didn’t have a concept of alien. I mean, in reality we are also aliens. Invasive aliens. What’s up with that.

There's Something About Comfrey

A tour of an herb garden to meet the plants and do some collecting is always an adventure. If it’s summer and the borage and comfrey are flowering, there's a real treat for the senses- sweet and tasty flowers possessing a vibrant, yet simple, beauty. The leaves aren't bad tasting either, although somewhat scratchy due to their high content of minerals, especially silica, providing strength to the bones and connective tissues of any animal eating it. Comfrey also contains much slimy mucilage (more than any other herb) which cools, softens and lubricates the tissues of the body, astringent tannins that tighten up spongy tissues and promote healing, as well as its powerful and well-known cell proliferant, allantoin, which is extracted for use in many body care products. It is said that comfrey promotes as vigorous cell growth in the body as it is prolific in the garden, growing easily and quickly from the smallest piece of root left in the Earth.

While attending herb school in Sonoma County, we acquired our eggs from a local farmer that tended chickens, as well as a large healthy comfrey patch. He’d cut the comfrey regularly and throw it out for the chickens to eat, which they did with much enthusiasm. The shells of those eggs almost literally required a chisel to break. The young leaves have long been considered a good green vegetable, and have been consumed not infrequently by country people and their animals throughout the world where it has been cultivated for its medicinal, as well as nutritional virtues. This great healing herb is now under fire by “advisory experts” who are misleading the public, once again, about the safety of a popular herb.

So, what is all the commotion about comfrey being toxic? Sale in the U.S. requires a label warning that it is for external use only. Authoritative web sites warn that even topical use on open skin should be avoided because of the possibility of systemic absorption. Studies are cited showing comfrey has caused liver problems in test animals. It is banned completely in several other countries (like Canada and Australia). This sounds serious. For the record, comfrey has never hurt any animal in any study- anywhere- ever. Isolated extracts of trace alkaloids found in young comfrey leaves have been concentrated and administered to animals in massive doses. If you want to draw a comparative conclusion from this data, refrain from eating a dozen bushels of young comfrey leaves three times a day over an extended period of time. A warning such as this should be sufficient, if required at all.

So, who’s got it in for comfrey? It represents an herb that is gentle and yet powerful, like nature. It is part of nature. So it can’t be patented and exploited by the powerful pharmaceutical action groups controlling much of our congress and other governing bodies worldwide. So it has to go. Presumably, to make room for safer, new improved (patentable) products of “modern” chemistry. It may be time for the American consumer to do a little fact finding of their own to discover what presents the greatest threat to our well-being, an herb like comfrey that will be here long after our civilization has choked on its own chemistry- or by misinformation willfully disseminated by those we’ve entrusted to protect us.

Coffee or Tea for Thee?

Reading this over a cup of coffee? Next time, try green tea. A number of recent studies have shown some varieties of tea may help prevent cancer and other disorders. Camellia Sinensis, the tea plant, is indigenous to both China and parts of India. Wild tea plants can grow 90 feet and above. In the past monkeys were trained to pick tea leaves and throw them down where they were collected. Today tea plants are cultivated as a plantation crop and therefore the plants are kept to a height of about three feet, for easy picking. There are over 2000 varieties of tea. Although tea is produced in more than 25 countries, the major producers

include China, India, Indonesia, Kenya, Malawi, and Sri Lanka. It was during China's Tang Dynasty [6816-906 B.C.] that tea became the national beverage of choice. Buddhist priests are thought to have been responsible for spreading the cultivation of tea throughout China and Japan. The three main categories of tea are black, green, and oolong. Within each of these categories there are many varieties. Black and green teas come from the same tea plant species, the difference being the processing procedure that each tea undergoes. Black tea undergo several hours of oxidation before drying. Green tea is steamed immediately after picking to stop oxidation. Oolong (green/black) tea is partially fermented to preserve some of green teas' delicate flavor and add richer flavor of black tea. Teas are flavored with variety of dried fruits and citrus oils. Most popular is oil of Bergamot- a citrus tree native to Italy.

One study, by the National Cancer Institute and the Shanghai Cancer Institute of China, found that those who drink green tea on a regular basis - at least once a week for six months or more - have a lower risk of esophageal cancer. Research in Japan found green tea may provide some protection against skin, liver and lung cancer. And green tea may help explain why smokers in Japan have a lower rate of lung cancer than do Americans. Active principles in the tea leaves include catechins or polyphenols, a class of potent fat soluble antioxidants found in grapes, berries, onions and red wine that neutralize free radicals in the body that attack and damage healthy DNA causing a range of degenerative conditions. Researchers have also found that these polyphenols activate the liver's all-important enzyme detoxification system. Researchers from The University of Kansas measured the antioxidant content of green tea and found that it is 100 times more effective than vitamin C and 25 times better than vitamin E at protecting cells from damage believed linked to cancer, heart disease and other illnesses.

In July 1994, the journal Science News quoted a Rutgers University researchers theory that "all of the teas - green and black, regular and decaf - display antioxidant properties." If that isn't enough to make you take the tea plunge, a research team at the University of California, Berkeley, found another substance in green tea, called hexanes, can help protect against cavities. And while coffee has been linked to heart disease, no such link exists for tea. In fact, a study of tea drinkers in the Netherlands found that they had half the risk of fatal heart attacks. Experts credit compounds in tea called flavonoids that stop blood platelets from forming clots, much as aspirin does. Green tea is recommended for those concerned with cardiovascular health, cholesterol reduction, and mental fitness.

It's probably best to brew your own green tea fresh. Tests at Lipton Co. show that tea retains 80 to 90% of antioxidants for at least 48 hours. Storing homemade iced tea longer than that is not recommended -- for food safety reasons. Remember to always store iced tea in the refrigerator. Before it's brewed, however, the antioxidants in tea bags are stable, so you won't get fewer antioxidants from using older tea bags. The taste, however, may be stale. All teas should be stored in airtight containers out of direct sunlight so that they do not lose their flavor or take on foreign aromas. Be aware, also, that sweetened iced teas do contain added sugar -- such as high fructose corn syrup -- leading to higher calorie levels. Sweetened iced teas have the equivalent of up to 13 teaspoons of added table sugar per 16 oz bottle. Also, teas contain caffeine, which can cause insomnia, nervousness, irritability and anxiety if used in excess. Studies have shown, however, that decaffeinated tea doesn't lose its antioxidants, so decaf is ok in this respect. If you're not a tea drinker, green tea extract capsules can provide the same health benefits. So, what will it be- coffee or tea for thee?

The Right Stuff - not enough

Folk tradition has been passed down from experienced elders to young apprentices for generations through the millennia. It's been a living record of effectiveness. They didn't rely on the interpretation of results from scientific studies performed in controlled settings. They used remedies that had proven effective for their fathers and forefathers. It wasn't until some time after I completed professional training with the world-renowned herbalist, Rosemary Gladstar, that I actually realized how privileged I had been to study with her at her home and school in Emerald Valley. I had been connected to the Earth and to the spirit of the plants. For me, they were more than convenient sources of chemical compounds that could be used in medicine. They were living, breathing, intelligent, caring beings whose roots in the Earth gave them a natural connection, sometimes lacking in our lives. Rosemary had been made aware of these things at her grandmothers knee in the fields and woods where she gathered the medicinal herbs used to help her family

and friends. This folkloric tradition has weathered the trials of tide and time. It is embedded in the culture of most “primitive” peoples worldwide. Many of the principles continue in herbalism today. Still others have found themselves perverted in ways that I, frankly, find hard to understand.

There’s a difference between the methods of folkloric herbalists and most “modern” clinical herbalists today. One major difference is the recommended dosage for herbal extracts. When Rosemary Gladstar would pass around tinctures (alcohol extracts) for her students to sample, she passed liter bottles from which we were invited to drink. If you’ve shopped for tinctures in the commercial marketplace, you know the most common size is the 1 ounce dropper bottle. Dosages are given in drops, commonly 15-30 recommended as a single dose. Thirty drops represent a half teaspoonful or about 2.5 milliliters. International protocol for tincture strength is 1:5, one gram of herb for each 5 ml. The amount of herb extracted in 2.5 ml is ½ gram. For most herbs, this small amount may suggest a therapeutic action, but is not really sufficient to produce a marked effect. In fact, the same herb incorporated in a standard tea would require an ounce of the herb, 50 times more, to effect the same result. This practice of using a few drops of tincture is, in reality, closer to homeopathy than traditional herbalism. It’s no different from taking an aspirin and hitting it with a hammer, breaking it into 50 pieces, then taking one of those pieces for your headache. Would you expect much relief? This amount is what I term the null zone for that remedy - right stuff, not enough. Is the alcohol extraction somehow able derive as much medicine from only 2% of the therapeutic amount of herb? Water is the universal solvent, extracting most herbal principles as well, or better, than alcohol. Alcohol serves as a preservative and facilitates quick absorption in the body, but does not increase the potency of herbal principles nor the amount bio-available in a given measure of extract. Tinctures are a valuable aid in herbal therapeutics. In our herbal clinic, we send clients home with pints of tincture. We teach our students how to make their own extracts and let them know that, to be effective, they need to be consumed in tablespoon doses. There are, of course, herbs that only require a very small amount to be effective. Taking large amounts of these could present problems. It is prudent to inform yourself about the use of herbs before undertaking self-medication with them. In this effort, a little education goes a long way.

The More Things Change - Wood Betony (Stachys officinalis)

As we enter a new millennium, it may be helpful to look back to assess what we’ve learned collectively about medicinal plants that could prove helpful in our future. And, while many other things are changing in this technological age, the plants remain. One medicinal plant has survived the modern attacks on herbs and has remained in high repute through the Middle Ages, and by the Greeks, who extolled the qualities of this pretty woodland member of the mint family, Wood Betony. Throughout the centuries, faith in Betony’s virtues as a panacea for all ills has been thoroughly ingrained in the popular estimation. From an olde herbal about Betony, “it preserveth the lives and bodies of men from the danger of epidemical diseases. ...The decoction with wine taken internally is a good vermifuge (for dispelling worms), gargled in the mouth easeth the toothache.... It is a cure for the bites of mad dogs.... A dram of the powder taken with a little honey in some vinegar is good for refreshing those that are wearied by travel. It stayeth bleeding at the nose and mouth, and helpeth those that spit blood, and is good for those that have a rupture and are bruised. The green herb bruised, or the juice, applied to any inward hurt, or outward wound in the body or head, will quickly heal and close it up. It will draw forth any broken bone or splinter, thorn or other thing gotten into the flesh, also healeth old sores or ulcers and boils. The root is displeasing both to taste and stomach, whereas the leaves and flowers by their sweet and spicy taste, comfort both in meat and medicine.” An old Italian proverb, “Sell your coat and buy Betony,” and “He has as many virtues as Betony,” a saying of the Spaniards, indicate what value was placed on its remedial properties. The chief physician of the Emperor Augustus, Antonius Musa, wrote a long treatise, showing Betony as a certain cure for no less than forty-seven diseases. It affects the heart and liver, as well as the nervous system. A mild sedative, it is useful for nervousness, insanity and anxiety (and anxiety-based headaches). The dried herb may also be smoked, combined with Eyebright and Coltsfoot, for relieving headaches. A pinch of the dried herb will promote violent sneezing and was incorporated in Rowley’s British Herb Snuff, at one time quite famous for headaches. Robert Turner, a physician writing in the latter half of the seventeenth century, recounts nearly thirty complaints for which Betony was considered efficacious, and adds, “I shall conclude with the words

I have found in an old manuscript under the virtues of it: “More than all this have been proved of Betony.” Also known as Bishopswort, Betony is thought to have power over evil spirits and was carefully planted in monasteries as well as apothecary gardens. It may still be found growing around the sites of ruins of these ancient buildings. It was also hung around the neck as an amulet or charm. It was said to sanctify those that carried it about them and being also good against fearful visions and an efficacious means of driving away devils and despair. Wood Betony may be taken internally as a tea, tincture or powder. We combine it with Valerian, Skullcap and Camomile in a nerve tonic.

Aromatherapy for Valentines - the Rose

We have one day each year set aside strictly for affairs of the heart. Valentine’s Day. As a child, I remember the ritual of writing the name of each of my class mates on a little card purchased by my parents. We would then exchange them in class, en mass, after which I’d bring home the pile and discard them. As I grew older, and began to interact with girls, this day took on a deeper meaning. Indeed, it is a day for expressing and celebrating romantic love, an emotion borne in the romantic heart. Through the ages, the flower of one particular herbaceous shrub has served as the emblem of romantic love, the Rose. Nothing seems to convey affection like a bouquet of Roses. There are now more than 10,000 types of cultivated rose which have been carried to virtually every temperate area of the globe, where the Rose has become the theme for poets and the subject of many legends. The birthplace of the cultivated rose was probably in Northern Persia, on the Caspian, or in Faristan on the Gulf of Persia. From there it spread across Mesopotamia to Palestine and across Asia Minor to Greece and Southern Italy. The ancient rose was deep crimson in color, which probably suggested the ancient fable of its springing from the blood of Adonis. The word *rosa* comes from the Greek *radon* (red). The Romans made lavish use of the blossoms at banquets, weddings and even funerals. Petals of Roses were floated in their Falerian wines and garlands of Roses were worn at their feasts, as a preventative against drunkenness. It was once a custom to suspend a Rose over the dinner table as a sign that all private conversations were to be held in confidence (that is, sub rosa).

Although the Rose has been highly esteemed since the dawn of history and rose-water was first prepared by Avicenna in the tenth century, it does not appear that the Rose was subjected to the still to collect its wonderful and fragrant essential oil until some time in the 17th century. According to two separate accounts, in 1612, the essential oil was discovered quite accidentally. At the Persian wedding feast of the princess Nour-Djihan with the Emperor Djihanguyr, huge sums were spent for an extravagant and luxurious party. As part of the plan, a canal circling the whole garden complex was dug and filled with rose-water. The heat of the sun separating the water from the essential oil of the Rose was observed by the bridal pair as they rowed across the fragrant water. It was skimmed off and found to be an exquisite perfume. This discovery was immediately broadcast and the large scale manufacture of Rose’s delicate essential oil, later to become known as Otto of Roses or Rose attar, commenced. One of the most expensive of the essential oils today, it takes 2.3 acres of Roses, about 10,000 pounds, to yield a liter, or approximately 30 Roses to make one drop.

Today, Roses are an emblem of romantic love and are commonly sprinkled at weddings the world over. Rose-water is widely employed as an astringent tonic for the skin. The essential oil is used to soothe a person inside and out. It is said to open the romantic heart, hence its association with romantic love and Valentine’s Day. I enjoy combining it with essential oils of Lavender and Chamomile in beauty cream to help keep my sweetheart in a radiant glow.

A Simpler Way

In a previous article, *The Right Stuff - not enough*, I alluded to the fact that it normally takes a good bit of material from mild medicinal plants to trigger healing reactions in the body. If one is working only with the plants for their chemical compounds, one ounce (about a handful) of mild herbs steeped in a tea is standard. This chemical model breaks down, however, when working with more subtle healing energies in medicinal plants. The olde herbalists were known as simplers. These pagans used nature spirits and plants holistically, that is, using the whole plant (body, mind and spirit) to treat the whole person. The principles of simpling

remind one of the horse and buggy days of medicine. In those times, most people actually knew the basics of herbal medicine and applied them for minor ailments. Something more stubborn or complicated was referred to the simpler who did, in some cases, arrive via horse. The simpler would evaluate the ailing person and go forth upon the local field or river bank to fetch local remedies. The use of local healing plants was intended to help “ground” the patient to the local healing energies of the Earth. By getting more in touch with the local Earth energy, a person would feel more connected and balanced, less dis-eased. It wasn’t even so much a matter of getting “the right remedy.” Actually, the theory was that any local plant would help. From these simple beginnings emerged a model of using local plants to heal, but using minute amounts of plant material, rather than large amounts. This model, known as vitalism, calls upon the subtle healing energies of the plant to assist in the healing process. Like homeopathy and flower essence therapy, vitalism is making a resurgence in the holistic medicine of the new millennium.

My partner, Jane, related a story about how an encounter with a medicinal plant healed our son when he was four years old. Ben had a high fever that wouldn’t break. Jane was scared, but she’d learned that tea made from lemon balm, a mint family herb with mild relaxing diaphoretic properties, was safe for bringing down fevers in children. She went out to our herb garden and picked some of the herb to make tea. She also prayed to the plant spirit of lemon balm to help break Ben’s fever. When she brought the tea to Ben, he was sleeping, so Jane simply sprinkled the tea on him. This “dose” and method of application wouldn’t normally be expected to do much, if anything. Twenty minutes later Ben’s fever broke, and he was feeling better. That evening the plant spirit of lemon balm visited Jane in a dream. It was so huge it had to bend over to fit in the room. “You called on me?” it inquired. Jane was amazed that even the mildest of healing plants could have such a powerful spirit and profound capacity to heal, even in minute amounts applied externally!

Food for Thought - Herbal Brain Boosters

Compounds in medicinal plants act with intelligence in the body. Studies on alkaloids from the lesser periwinkle, *Vinca minor*, indicate that they can actually make us smarter. The new term for phytochemicals that enhance mental function is **Smart Drugs**, and they are forming the backbone of a blossoming field of medicine known as nootropics. The term nootropic comes from a Greek word meaning “acting on the mind.”

In the past, we’ve heard a lot about the astounding benefits on cerebral function of such herbs as ginkgo biloba and gota kola. Other, less exotic herbs such as peppermint, rosemary and sage have also been used for ages to increase oxygenation to the brain. Several brain boosters are known to help restore failing memory, but periwinkle has been shown to dramatically enhance memory even in healthy individuals. It does this by dilating blood vessels, improving oxygen and glucose utilization, and concentrating neurotransmitters involved in the process of memory formation.

Red blood cells carrying oxygen to brain cells (neurons) have to pass through very narrow capillaries. Neurons also need glucose delivered through these tiny capillaries. Vincamine, an alkaloid in *Vinca minor*, dilates the capillaries, allowing more oxygen and glucose delivery, and increasing ATP (energy) in neurons. It also inhibits platelet aggregation, helping to prevent blockage of these vessels (preventing strokes). The improved blood flow also helps protect heart function, prevents macular degeneration (a leading cause of blindness in the elderly), improves hearing and inner ear problems, and even lessens depression and fatigue. Natural medicine makers and pharmaceutical interests alike are scrambling to develop nootropic combinations, many of which are now being marketed world-wide as an aid in activities requiring highly focused attention such as technical writing and computer operation. But don’t look for quick results from these wonder drugs. Tonic herbs don’t work overnight. They work gradually over time, achieving optimum results after several weeks of continuous use. When vincamine is given orally (10 mg three times a day), which is the normal method, subjective and objective improvement is usually noted between three and six weeks. Whole plant extracts are also available.

Vinca minor (Vincamine) benefits in cerebral circulatory disorders and overall health

Operative	Function	benefits of vincamine
Capillaries	deliver oxygen, glucose	dilates capillaries (more in stagnant areas) inhibits platelet aggregation
Neurons	send messages	enhances availability of oxygen, glucose, energy (ATP) and neurotransmitters
Neurotransmitters	transmit neural messages	more noradrenalin & dopamine produced more serotonin released more concentration of acetylcholine
heart eyes inner ear overall		improved blood flow helps protect heart, prevents blindness- macular degeneration, improves hearing and inner ear problems, lessens depression and fatigue

Medicinal Action Comparative with the other two medicinal Periwinkles

Vinca major	alkaloids, astringents	hemostatic, astringent used for piles and inflammations
Vinca rosea	vincristine, vinblastine	mitotic spindle poison used to treat Hodgkin's disease and leukemia

Live and Let Live

Some believe that the human body is designed to last forever. Folks in the Old Testament lived for many hundreds of years. More recently, one Chinese herbalist, I chung yun, was documented to live for 256 years, not only surviving that long, but maintaining stamina and virility. He attributed his life span to the daily ingestion of two root tonics, ginseng and fo-ti, drinking pure water, and maintaining pure thoughts through meditation. The leaves and seeds of fo-ti contain a compound, called Vitamin X, studied in France for its marked energizing and rejuvenating effects on nerves, the brain, and endocrine glands. Notwithstanding this, there are indications that I chung yun may not have been that unique. Our bodies are a colony of ever-renewing cells. Twenty-seven trillion cells. None of which are more than a few years old. In fact, every day we break down and rebuild about two hundred and fifty grams of proteinaceous material, or about a half pound. At this rate, we would renew completely about once per year. Actually, some cells replace more often, while some last a quite a bit longer. So, if none of our cells get old, why do we? There are many theories. The free radical theory blames freakish molecules lacking electrons that attack our structures, wreaking havoc. Some studies indicate that the average cell in our bodies actually suffers one million oxidative "hits" per minute, which must be repaired by our anabolic enzymes. This would be akin to traveling in a space ship through a continuous meteor shower that damaged the ship a million times per minute, with repair crews working incessantly around the clock, fixing, fixing, fixing. Sounds very busy. One theory is about how we run out of enzymes to provide our metabolic functions and so fall behind on this critical repair work, and slowly deteriorate. The main reason for enzyme depletion is the consumption of cooked and processed foods. Enzymes die if exposed to temperatures above 110 degrees Fahrenheit. As we get older, our bodies can't keep up with this imposed deficit, with a resulting decline in metabolic function, digestive function and immune competence. In Doctor Edward Howell's definitive work on the subject, *Enzyme Nutrition*, based on forty years of research, he compares cultures who eat a diet of predominantly cooked foods with those who eat mostly raw foods. His arguments are worth considering. Some think stress is to blame for our early demise. Stress is actually a blanket term for many destructive mechanisms. Emotional stress can be positive (bungy jumping or a day at the races) or negative (in one study most men admitted they would rather be mugged than audited by the IRS). The water we drink is getting more and more polluted. Our food is grown in depleted soils, and loaded with toxic chemicals and

transfatty acids. Animal products contain concentrated amounts of toxins, sticky saturated fats and cholesterol. We often heat things in microwave ovens that alter their vibrational nature, and ours. We're burning holes in our atmosphere's protective layers, exposing us to deadly radiation. Forget about the quality of the air we breathe. The question, in this modern age, is not so much how we can live longer. More to the point, in the midst of such self-imposed destructiveness, is how we survive at all.

Tummy Tonic

Here come the winter holidays again, for better or worse. The better part is the drawing closer of friends and family to share in the celebrations. Often though, our stomachs get the worst of it as we feast on candies, cookies, fruitcakes and other rich foods. And, although stomachaches are not unique to this season, they are almost inevitably more prevalent. Fortunately, nature has endowed us with swift and sure relief in the form of an herbal remedy our family and friends have come to call tummy tonic. A combination of peppermint and chamomile, this formula, although simple, is probably the most bulletproof remedy I've concocted in over twenty years as an herbalist. It can be relied upon as a tea, but in the form of an alcohol extract (tincture) it will relieve most stomach pains in two minutes or less. It is simple to prepare and most agreeable to deliver. Start with good quality organically grown peppermint and chamomile and your favorite brandy. Place equal amounts of each herb in a glass jar and pour in the brandy to cover. After a few hours the herb will swell up, absorbing some of the brandy. Pour in more brandy to barely cover. This is the folkloric method of making tinctures. Label your jar so you don't forget what it is if left on a shelf for some time. Normally this would be shaken daily for two weeks and then pressed out with a clean cloth, leaving the herb in the cloth and the tincture in a measuring cup or bowl. This can be bottled and stored for years. I sometimes prefer to make a cocktail with it, although it is quite effective neat. Adding a small amount of maple syrup and carbonated water to a teaspoonful of the tincture is my favorite method. The carbonated water helps dispel gas while the muscle relaxers in the peppermint and chamomile do their magic on the smooth muscle groups in your stomach. This remedy is safe for children and the elderly as well. It should be noted that some people are allergic to chamomile and could suffer from ingesting it. I can't imagine that anyone hasn't had chamomile by now, and determined that it is safe for them. It is always better to err on the side of safety and make sure by asking or trying a very minute dose to patch test for a medicine taken for the first time. A stomachache is preferable to anaphylactic shock. Notwithstanding this, I believe this remedy could make anyone's holiday season more pleasant and would be a great addition to a first-aid kit for digestive emergencies any time of year. In fact, I have given bottles of tummy tonic as Christmas gifts many a time with nothing but great revues and years of gratitude from the recipients. So, if you find yourself in the familiar position of having enjoyed more of the holiday treats than your stomach can handle, or you're looking for that special gift for the person who has everything, check out tummy tonic. And have a merry, healthy and pain-free holiday season.

Where Have All the Flowers Gone

United Plant Savers (UpS) recently held their annual Herb Conference in San Diego. Among the topics discussed was the preservation of endangered and at risk plants in America and around the globe. With a rising awareness of the advantages of medicinal herbs over many pharmaceuticals (herbs are generally more efficacious, have less side effects and are way less expensive), herb use is steadily rising in the world, especially in America. Pharmacies now have whole isles dedicated to herbal remedies. The internet is resplendent with junk-email promising herbal alternatives to Viagra, remedies to prevent hangovers, help with weight loss, relieve PMS, you name it. The herbal renaissance is definitely gaining momentum. And, as much of a delight as this is to those who have championed it, we are now faced with a growing concern about the continued availability of these medicinal plants, especially in the wild. Over-harvesting and loss of habitat due to development is putting the squeeze on our herb friends. The list of extinct, endangered and at risk plants grows daily. And compounding this problem are local attitudes about "preserving" the integrity of native plant populations. Many of the plants growing around us in San Diego are not native, but were brought here by migrating populations of people from around the world. These pilgrims protected and watered their favorite plants on arduous voyages across the mighty Atlantic Ocean on little wooden ships. Many braved the elements and hostile natives to traverse the continent in little wooden wagons, again

nurturing the plants they wished to have with them in the New World. And, having found themselves here, the plants flourished in our temperate climate and were welcomed and utilized by the local natives who, themselves, had no concept nor vocabulary to discern between “native” and “alien.” But now there are those who have decided that these plants are a threat to our native plant population and would have them eradicated... in the name of preservation. Of course, these people are themselves aliens. Following their logic, all people would leave the area and, in fact, the Earth, since we all just got here, relatively speaking. I’m not suggesting that this is a bad idea. We are, after all, really the ones threatening the local plants by developing wild habitat and generally polluting everything to the brink of destruction. But we’ll probably stay and continue to impose our own will, threatening the pilgrim plant populations, wonderful plants like yellow dock and fennel that find themselves on a list of plants to be eradicated in public lands. So, at a time when we are trying to protect plants in the wild, we are also engaged in destructive policies that limit genetic diversity and the availability of many beneficial plants around us. I’m not suggesting that there’s a simple solution to this problem. But it is a situation we need to address and resolve if we are to be conscious stewards of the natural world we live in.

Romance - It’s in the Air

Ah, Springtime! Romance is in the air. Even the parrots of Ocean Beach are making advances and doing their special courtship dance on the telephone wires. Spring rains have encouraged a profusion of colorful flowers with their delicious scents. Soon the night-blooming jasmine outside our window will be filling the night with its delirious odor, heralding the advance of summer. Nature moves us in mysterious ways through our sense of smell. The sensory connection we make through the olfactory membrane is the only place in the human body where the central nervous system is directly exposed and in contact with the outside environment. The myriad of odor stimuli from scents release neurotransmitters that regulate our inner life, the core of our being. The cells of the olfactory membrane are themselves brain cells, part of the limbic system, the oldest root of our brain, and most primal seat of our sexuality, motivation, creativity, and our attractive impulses. Pheromones, hormone-like substances in our personal aroma, influence a prospective mate to choose us to romance. This perception happens on a very natural and subtle level, influencing animals intuitively. A male butterfly can smell a female six miles away! And, although not as sensitive as butterflies, we respond to those around us according to their scent. The pheromones in the perspiration of human males contain substances similar to the male sex hormone testosterone, attracting females on an unconscious level. Many essential oils from plants contain pheromones of their own to attract insects and birds to pollinate them, or to repel predators. They may also influence how we respond to someone anointing themselves with them, or others to us if we choose wisely. Our wonderful night-blooming jasmine, also known as “queen of the night,” produces an oil very close in chemical structure to human perspiration, which makes it easily absorbed and mixed with our own pheromones, creating a unique personal scent. It seems to increase the attractiveness of anyone wearing it. This attribute has been known for centuries. When Cleopatra prepared herself for her encounter with Mark Anthony, she had everything around her perfumed, including the sails of her ship. The rest is history. In India where jasmine originated, many portrayals of lovers bathed in moonlight include depictions of the mysterious and magical jasmine. It excites sensuality. It penetrates our being and diminishes fear, encouraging us to recapture self-confidence. No other essential oil is quite as capable of changing our mood so intensely. Men and women under its influence open up to sensual love in a natural way from a state of wholeness gained from trusting themselves and others. Thus is the stage set for true romance embracing warmth, trust and a relaxed physical awareness that allows for a closeness born of kinship. At the same time, jasmine increases our intuitive powers, allowing us to “know” when we have encountered our mate. Jasmine is so potent, just a drop or two is required. It takes about a thousand pounds or 3.6 million fresh jasmine flowers to produce a pound of the essential oil. The flowers must be picked by hand before dawn when they’re most imbued with the volatile oil which dissipates with the rising sun. Each delicate flower is handled gently so they don’t get squashed. A liter can cost over \$5000, making it one of the most expensive of the essential oils. Since it is so costly, synthetics have been formulated to approximate its fragrance, some containing small amounts of the pure oil to mask the cheap odor. So, if you’re looking to woo that special someone with jasmine, be sure you get

the real thing. Several distributors have an excellent reputation for the quality of their oils. Rub in a drop or two and let nature do its thing. The rest will be history.

Weed it and Reap

Whether you live in an apartment with little or no dirt to play in or have acres to manage, a great deal of joy and beauty can be brought into your living space by planting and growing herbs. With a little knowledge, some planning, and a bit of effort, we can surround ourselves with plants that disperse exotic scents into the air, attract hummingbirds and butterflies, and provide color and texture to our landscape, while supplying material for our favorite teas, potpourris, spice cabinets and medicine chests. Some folks like a neat and tidy garden with measured beds and maintained paths. Others prefer to let the herbs run where they will, as they do in the wild. Either way, they can be enjoyed for their beauty and harvested for their many benefits. The great thing about growing herbs is that however you proceed, you'll probably succeed. Since San Diego has such a temperate climate, most things do well here. One major consideration here is the rainfall pattern. It doesn't rain for months on end. If you wish to have your garden survive this dry spell, you need to have a watering strategy, or simply plant drought tolerant native plants. Although this limits your selection somewhat, it provides a fairly maintenance-free garden. One of my favorites is Mexican Sage. It's beautiful and attracts hummingbirds. There are some other great sages such as black sage, white sage and Cleveland sage. We've been getting a lot of comments lately on our Jerusalem sage, *Phlomis fruticosa*, with its lovely yellow flowers. Although not a true sage, it's a common ornamental shrub. The local lemonade berry, *Rhus integrifolia*, is another favorite. It's not only drought tolerant, but fire retardant as well. I've seen where it has stopped fires in San Diego canyons dead in their tracks, without killing the *Rhus*. When it fruits, you can suck on the seeds and enjoy their wonderfully sour taste. This might be a plant to consider if you live at the edge of a canyon where the threat of fire exists. Whether you choose natives or exotics, any good garden soil will support herbs. A soil pH of neutral to slightly alkaline is usually best. San Diego soil tends to be a bit hard and sometimes sandy. All soils can be amended by the addition of organic compost, which you can make, or purchase. Compost will adjust the pH, as well as improving drainage and nutrient exchange. It usually helps to prepare the site by digging compost in at least 18 inches deep. You can obtain your little herb plants from nurseries, botanical gardens or herb shops. Most herbs do well in full sun and require at least six hours daily. Get the appropriate info on the plants you choose and try to give them what they require. Plant them so that the adult leaves just touch, creating a living canopy to provide shade to the surrounding earth, limiting evaporation and retarding weed growth. After planting, compost or organic fertilizer may be mixed into the surface layer occasionally with a hoe or trowel. Weeding and mulching will give your developing plants a chance to establish themselves. Occasional watering is usually sufficient, but many herbs will flourish if watered daily. Herbs are like weeds. Once established, they're persistent. In fact, many are harder to eradicate, once established, than to maintain. Even in pots, they will brighten our lives and enrich our stews.