

The Amazing Adaptogens & Tonic Herbs ~ *Herbs to Live By*

Adaptogens...this word is the new buzz word in herbalism and herbs classified as adaptogens are the new super stars of the herbal world. And for good reason. Adaptogenic herbs boost energy, restore vitality, and help raise the body's ability to deal with the stresses of modern life ~ and, as an added bonus, they have no harmful side effects. They are also the prime herbs used for increasing life force and ones quality of life as one ages (or saging, as I prefer calling the aging process). Broadly speaking an Adaptogen can be any substance or life style change that helps one adjust or adapt to our modern day environment (such as a heater or air conditioning or Kombuchu, even), but the term is most often used to describe a group of herbs that have a long history of promoting longevity and increasing the over all strength and resiliency of our bodies.

The term, adaptogen, is fairly new and won't be found in any of the older herb books ~ those written before 1990 ~ and you won't find the word in a dictionary, either. Yet is a common term amongst herbalists and holistic practitioners and is used to describe a highly regarded and well-known group of herbs. The term was coined by a Russian scientist, Dr. Lazarev, in the late 1940's, and was used to describe any substance that: (a) had a normalizing and balancing effect; (b) was non toxic and didn't create any harmful side effects; and (c) worked by a 'non specific' or more generalized action to increase resistance to illness through a wide range of physical and biochemical factors. Dr. Lazarev's protégé, Dr. Brekhman, was a holistically minded scientist with an interest in herbalism. Thankfully for us, he expanded Lazarev's work by centering his research on herbs that have a history of 'adaptogenic' like qualities. Dr. Brekhman studied hundreds of herbs to see if they had adaptogenic properties but ended up focusing most of his research on *Eleutherococcus senticosus* (Siberian Ginseng), *Rhodiola*, and *Panax* and Asian varieties of ginseng. He conducted literally hundreds of studies on thousands of people (factory workers, truck drivers and athletes, primarily) that proved that there were herbs that had the unique ability to help the body adapt to the stresses of modern life, improved energy and stamina, and increased one's adaptability to their environment.

Adaptogen Herbs are identified by their non-specific, broad health benefits. They increase the body's inherent life force, increase stamina and endurance and improve the over quality of physical well being. By definition, adaptogens are non-toxic and have no side effects (other than the side effect of good health) even when used over a long period of time.

Though the term adaptogen may be new, the knowledge of herbs with 'adaptogenic' qualities ~ those herbs used to promote and enhance life force, increase immune response, and that help us adapt to the stresses of every day life ~ have been around for generations. The terminology used to describe this group of herbs varies in different parts of the world, but herbs identified with adaptogenic like properties were always among the most valued of herbs in every culture. In Traditional Chinese Medicine (TCM), herbs with these adaptogenic like qualities were termed "Superior Medicine" and were among the most widely used of the Chinese herbs. Superior Herbal Medicines, like adaptogens,

were safe and non-toxic, raised immune function and increased resistance to illness, and were used to promote health and well being. In Ayurvedic Medicine, a herbal system originating in India and considered one of the most respected and renowned systems of healing in the world, rejuvenating and restorative herbs that had the ability to sustain and nourish life were called Rasayana herbs, which meant, literally, *path of essence*. An entire system of practice developed around this special group of Rasayana, or restorative herbs. In Western or American Herbalism, herbs that were restorative, tonifying, and rebuilding to the system were classified as Herbal Tonics and were used to treat a wide range of imbalances as well as to restore and maintain good health. Though tonics are not as appreciated as they once were, western herbal tonic therapy was at one time the foundation of many herbal treatments in North America ~ the adage was '*treat from the foundation up by tonifying, supporting and building life force and most illness's would improve or disappear.*'

No matter what they're called, Superior Medicines, Herbal Tonics, Rasayana's, or Adaptogenics, worldwide these are among our most well known and beloved herbs, perhaps because they are rejuvenating and restorative and help us adapt to many of the stresses of modern-day life! Traditionally, these herbs were often incorporated into one's meals, cooked into soups, sprinkled into food, or made into syrups, tonic drinks, and delicious spreads that were enticing to eat. Of course, one can take them as capsules and tinctures as well ~ there are many fine adaptogenic and energy building formulas available in capsules and as tinctures ~ but most herbalists prefer to use these particular herbs as food rather than 'medicine'. And there are many delicious recipes that one can make to entice one into taking these herbs on a regular basis. Here's one of my favorite. I include many more favorite recipes throughout my books and home study course.

Adapto~Chocolate Herbal Goodness

adapted from herbalists Penny & Bevin Clare (Mother & Daughter team).

Ingredients;

16 oz. bittersweet dark chocolate

8 oz. Coconut Oil

1 cup finely chopped walnuts

¼ - ½ finely powdered adaptogen/tonic herbs. I like to use these herbs; equal parts Siberian Ginseng (Eleuthero), Rhodiola, Schizandra and turmeric. But you can vary the herbs in this formula (see list of adaptogens at the end of this article). Try your own herbal combinations. Just be sure that herbs are finely powdered and remember the flavor of the herbs will affect the flavor of your herbal candy (though the chocolate is quite good at disguising the flavors)

1 tsp. pure Vanilla Extract

Coarsely ground Pink Himalayan Salt

Optional: 2-3 tablespoons grated fresh ginger (not dried)

* If using Turmeric in your herbal candy, add a small amount of coarsely ground black pepper (its said to activate or synerize the turmeric and make it more bio-available); approximately ½ teaspoon will do.

To Make:

- 1) Melt Chocolate & Coconut oil together over low heat.
- 2) Stir in Vanilla and add herbs. Stir well, making sure there aren't any lumps.
- 3) Stir in finely chopped nuts. * can add a little shredded coconut, too, if you like
- 4) Pour into a shallow baking dish.
- 5) Sprinkle the top lightly with course ground Pink Himalayan salt (or a salt of your choice ~ there's so many to choose from today!). Can also sprinkle with rose petals or other powdered herbs for color and flavor.
- 6) Set in a cool (or cold) place to harden. While still soft, score into small pieces; this will make it easier to cut or break when the chocolate has hardened.
- 7) Important! Store in a cool place, not near heat. * The coconut oil will cause this chocolate to melt in 'your hands' and not in your mouth if it gets warm, so be sure to store in a cool place.

A little more on Adaptogens (which also can be applied to Tonic Herbs, Superior Medicine (TCM) and Rasayana Herbs (Ayurveda Medicine)

To be considered an Adaptogenic, herbs must meet three criteria:

- 1) Non Toxic: They must be non toxic and cause minimal negative disturbances in the physiological functions of the body
- 2) Generalized Action: They are non-specific in action and have a more generalized action in the body. In other words, these herbs are not generally indicated for one specific condition or illness but rather tonify and build the entire system.
- 3) Normalizing and Balancing: They must have a normalizing effect on the body, helping to restore balance and homeostasis. Can be used for either/or situations such as high or low blood sugar, or high or low blood pressure.

Adaptogens help the body:

- Restore balance
- Increase energy
- Improve stamina
- Increase immune response
- Improve homeostasis
- Improve brain and memory function
- Balance and normalize over all body energy and health

How do these herbs work in the body?

In truth, in spite of numerous scientific studies, no ones quite sure exactly how these herbs work in the body. But here's a few of the theories of how they are able to restore health and vitality to our amazing human bodies ~

- They enhance the ability of enzymes to transform glucose into energy
- They activate the synthesis of proteins and nucleic acids
- They build and support immune health through numerous immuno enhancing mechanisms
- They are antioxidant rich and thus limit the number of free radicals in the system. Excess free radicals roaming in our systems are one of the key factors in age related disease.

- They work by supporting endocrine gland function and have a positive influence on the secretions of hormones and other chemicals produced by the pituitary, hypothalamus, and adrenal glands

*Perhaps its too complex to fully understand the '*how's*' of how plants work, but we do know they work through countless centuries of human interaction with plants; what we plant people refer to as '*empirical evidence*' ~ the first hand experience of untold centuries of people using plants on themselves. That's the best and most accurate science there is. Experience, experiment, play with, and enjoy these herbs. By their very definition they are generally safe to use*, and used over a period of time can increase ones energy, build stamina and endurance, and help one adapt both mentally and physically to the stresses of life. Who doesn't need that today?! Here's to radiant well-being and good health with a little help from our herbal friends. (I cover this group of herbs in greater depth in Lesson One of my home study course)

** Please note, while adaptogens and tonics are generally classified as safe, people can have individualized reactions to any thing. If you note itchy throat or eyes, or stomach upset shortly after ingesting any herb (or anything for that matter), discontinue use, drink several glasses of water, and, if you have it handy, add lemon to the water (lemon helps detoxify the system). If symptoms don't improve, wait a little while...if they get worse, then consult with your health care professional. If you are a particularly sensitive person who has allergic reactions to several different things then it's always best to be respectful of this and to introduce new things slowly, gently into your system. Always listen to your body.... no one knows it like you do.*

*** For further reading on adaptogens and tonic herbs:** *Adaptogens, Herbs for Stress, Stamina, & Stress Relief* by David Winston & Stephen Maimes (this book is highly recommended. A second edition is coming out shortly! Be in line ready to grab a copy); *Herbal Tonic Therapies* by D. Mowrey (out of print, but well worth searching for. Look online for used copies); *Chinese Tonic Therapies* by R. Teeguarden (a fun, entertaining and informative book on Chinese tonic herbs); *Herbs for Long Lasting Health* by Rosemary Gladstar (my small book on the subject; basic, easy to read, and filled with great recipes)

Some of our best and well known Adaptogens and Tonic Herbs:
(If you'd like a handout with information on each of these herbs, please go to my website: www.scienceandartofherbalism.com)

Ashwaganda (*Withania somnifera*)

Astragalus (*Astragalus membranaceus*)

Ginseng (*Panax* and related species)

Siberian Ginseng (*Eleutherococcus senticosus*)

Ho Shou Wu or Fo ti (*Polygonum multiflorum*)

Schizandra (*Schizandra chinensis*)

Reishi or Ling Zhi (*Ganoderma lucidum*, *G. lucidum*, and *G. applanatum*)

Holy Basil (*Ocimum sanctum*)

Rhodiola (*Rhodiola rosea*)

Gota Kola (*Hydrocotyle asiatica*, *Centella asiatica*)

Dandelion root (*Taraxacum officinale*)

Burdock root (*Arctium lappa*)

Nettle (*Urtica dioica*)

Milk thistle seed (*Silybum marianum*)

Gingko (*Gingko biloba*)

Hawthorn (*Crataegus* spp.)

Milky Oats (*Avena sativa*)

** This is only a partial listing. There are other favorite herbs that could be included on this list, for sure! Which ones would you include?*

Materia Medica of Adaptogens & Tonic Herbs (partial listing)

Ashwaganda (*Withania somnifera*)

An ancient Ayurvedic herb, Ashwaganda is referred to in India as the 'Indian Ginseng' and is an excellent adaptogenic herb. It increases the bodies over all ability to adapt to and resist stress. In India it is used to increase memory and facilitate learning and is specifically indicated for reduced levels of energy, general debilitation reduced sexual energy, nervous tension, stress, and anxiety.

Preparation tips: Ashwaganda has a peculiar taste and odor, but can be blended with other more flavorful herbs such as ginger, sarsaparilla, and cinnamon to make a nice tasting tea. In India, the root is powdered and mixed with milk for a classic rejuvenating drink. Try blending it with your favorite chi tea blend for a delicious restorative drink.

Astragalus (*Astragalus membranaceus*)

A wonderfully energizing and tonic herb, astragalus is one of the most outstanding herbs for building immune strength and energizing the entire body. It stimulates the deep immune system and helps to rebuild the bone marrow reserve that supports and regenerates the body's 'protective shield' or immune system. It is used to both prevent and treat long-term infections including chronic colds, repeating flus, candida and Epstein-Barr syndrome. Astragalus also promotes circulatory health and stimulates metabolism of dietary sugars, thus is often used by people with diabetes.

There have been several promising studies on using astragalus with cancer patients undergoing radiation and/or chemotherapy. One study published in *Cancer*, a publication of the American Cancer Society, reported that an aqueous extract of astragalus improved the immune function in 90% of the cancer patients studied. In studies done over an eight-year period at the National Cancer Research Institute and five other research institutes, astragalus was shown to improve the immune system of cancer patients as well as lessen the negative side effects of the cancer treatment. Working as a true adaptogen, the herb strengthens the immune systems ability to resist infection thereby contributing to the overall well being of the patient.

Astragalus is one of the most popular tonic herbs in China and is often called the 'young people's ginseng' as it is specifically indicated as an energizer for younger people,

though it is equally important for elderly people as well. It is one of the most important herbs used in Chinese fu-zheng therapy, a system of herbalism that treats disease by enhancing the over all system and normalizing the 'chi' or central energy of the body.

Preparation Tips: The root is often sliced, pressed, and cured in honey and bears a remarkable resemblance to the tongue depressors used by dentists. Look for long wide straight roots, generally whitish or cream colored with a yellowish core. The root has a sweet flavor and blends well with other herbs. The chopped roots are made into a flavorful tea, the powder makes a delicious paste when mixed with honey, and the root is often added to warming soups as they slowly simmer.

Ginseng (Panax and related species)

Ginseng has the reputation of being one of the world's best longevity and adaptogenic herbs and is renowned for its ability to promote vitality, improve immune function and over all well being. It has a long history of use and is considered a superior tonic herb in every country in which it is found growing. The name, Panax, is derived from the Greek *pan*, 'all', and *akos*, 'cure' or cure all, though ginseng is most often regarded as a tonic or adaptogenic agent rather than a specific curative. In traditional Chinese herbalism, ginseng is said to promote a long and happy life. It is used to benefit the spirit or mind as well as the physical body. There are several species of ginseng with subtle differences between them, but all contain adaptogenic properties and all are used to promote longevity and well being. Select roots that are at least 6 years or older and try to purchase organically cultivated roots and/or woods stimulated roots (cultivated in the woodlands) when possible. Commercial ginseng is often cultivated under intensive conditions with pesticides and fungicides and is of inferior quality. Buy ginseng from reputable growers and try to buy organically cultivated whenever possible.

Preparation tips: Ginseng has a fine robust flavor and makes a nice beverage tea. It blends well with many other herbs. Try serving it with ginger and cinnamon in a chi type blend. Sliced and soaked in honey, it makes a tasty treat. Ginseng powder is also mixed with other tonic herbs, blended with honey and spices to make a delicious concoction that can be used directly in tea or spread on crackers.

Warning: American Ginseng is seriously stressed in its native habitat and is included on the United Plant Savers' At Risk list. Use only organically cultivated or woods grown ginseng (ginseng that's been planted and tended in woodland settings).

Siberian Ginseng (Eleutherococcus senticosus)

This is the herb that the term adaptogenic was coined for. Though not a true ginseng, it is a close relative of the Panax family and contains similar properties. A superior adaptogenic and longevity herb, it has an impressive range of health benefits. It is one of the best herbs for increasing endurance and stamina and to build and enhance our resistance to stress factors whether they are emotional, physical or psychological. There are numerous studies on Eleuthero that prove its adaptogenic properties; Russian athletes experienced a 9% improvement in stamina when taking Eleuthero for one month; professional skiers before racing were given 3 dropperfuls of eleuthero which measurably increased their physical endurance and resistance to the cold; one thousand factory workers who took 3 dropperfuls of eleuthero extract daily showed an over all 50% reduction in general sickness and 40% reduction in number of days lost due to illness

(Economic and Medicinal Plant Research, Vol. I, by Dr. Norman Farnsworth). Unlike Panax ginseng, Eleuthero is found growing in abundance over a large range in Siberia and other cold northern climates. It is being cultivated in cold northern areas of the United States and grows into a large tree like shrub. **Preparation tips:** The flavor of Eleuthero is rather pleasant and blends well with other tonic and adaptogenic herbs in tea. It is nice mixed with warming spices such as cinnamon and ginger. The powder is often mixed into food and the roots are an important ingredient in 'Long Life' wines and elixirs.

Ho Shou Wu or Fo ti (*Polygonum multiflorum*)

Next to Ginseng, Ho Shou Wu, or Fo-Ti as it is often called, is the most renowned and the most written about longevity/adaptogenic herb. Its uses were recorded as early as 1578 in the famous Pen Ts'ao, It is said to restore vitality and purportedly, will restore original hair color that has faded or turned silver and has a long reputation as a 'youth preserver, rejuvenator and sexual tonic'. Used for hundreds of years by literally millions of people to increase vitality and inner strength, it has a solid reputation that only seems to increase with time.

Though an important energizer, it is also used during times of stress and anxiety to promote a feeling of calm and relaxation. Modern studies have shown Fo Ti to contain resveratrol and lecithin, compounds that have a beneficial effect on cholesterol levels and enhance circulatory function.

Fo Ti is often combined with other tonic herbs and is found in hundreds of longevity formulas. It was a favorite herb of Li Ch'ing Yuen, a famous scribe of ancient China who wrote about Fo Ti as early as 1578 in the now famous Pen Ts'ao. Li Ch'ing lived to be a venerable elder and credited his longevity to his daily consumption of Ho Shou Wu mixed with ginseng, lycii berries and other tonic herbs.

Preparation tips: It is excellent combined with ginseng, and/or astragalus and/or can be mixed with other powdered herbs such as ginseng, licorice, cinnamon and cardamom into a paste with honey. Spread this paste on toast or crackers or mix in hot water for an 'instant tea'.

Schizandra (*Schizandra chinensis*)

Called 'five flavored plant' or wu wei tsu in Chinese medicine, Schizandra has five distinguished flavors: sweet, salty, sour, pungent and bitter. Each flavor follows the proceeding one until the palette is engulfed in the entire taste sensation. It is said that each flavor activates and balances a different organ system and because of this schizandra is known as a superior tonic herb. It is classified as an adaptogenic herb, raising the body's ability to resist all manners of stress and disease. It has enjoyed a great reputation in China and was used at one time primarily by wealthy upper middle class women as a preserver of youth, a beauty aide, and a powerful sexual tonic. Today, whether wealthy or poor, female or male, we all can receive the benefits of using it

It is a great herb for increasing endurance. On a study done on polo and racehorses, schizandra was proven to increase the speed and recovery time of the animals after racing. Researchers found that horses on schizandra not only increased their 800 meter

time from 52.2 to 50.4 seconds (a competitive advantage of six lengths), but also their breathing and heart rates returned to normal more quickly than those horses that were on the placebo. People too have used schizandra to increase endurance and stamina for hundreds of years.

Preparation Tips: Schizandra berries have a unique flavor; people either love them or not. Mixed with ginseng, they increase stamina and endurance and are often used by those in sports or for long hikes. They can be soaked in fruit juice and/or wine for a tonic drink or cooked in honey until soft and jam like. Added to tea, they add a sour lemon like flavor that is quite pleasant.

Reishi or Ling Zhi (*Ganoderma lucidum*, *G. lucidum*, and *G. applanatum*)

Reishi is known as the ‘mushroom of Immortality’ in Japan and in China the oldest known record on reishi describes the various qualities of Reishi including its beneficial effects on the heart, memory, and as an herb for longevity. It has a remarkably long history of being used as an adaptogenic tonic and is considered ‘the medicine supreme’ for increasing vitality, over all health and well being. It is used for many age related disorders such as coronary heart disease, high cholesterol, arthritis, immune disorders and cancers. Christopher Hobbs, author of Medicinal Mushrooms, states of Reishi, “the list of benefits observed in laboratory and clinic experiments reads like a panacea wish-list’.

Preparation tips: Reishi is tough and fibrous, so is best cooked in soups, or used in powdered or extract form.

Holy Basil (*Ocimum sanctum*)

In India where this herb originates, it is revered as a plant sacred to Lakshmi, wife of Vishnu, the god who preserves life. In India, it’s commonly referred to as Tulsi, which means ‘unmatched’ and in Ayurvedic healing, it is considered ‘matchless’ for cardiovascular problems, hypertension, diabetes, stress, and age related illnesses. Holy Basil, or Tulsi, has a long history of being used to increase energy, vitality and as an herb for longevity and well being. A cousin to Sweet Basil (*O. basilicum*), Holy Basil is easy to grow and is often grown in pots placed on sunny areas around the house as it also repels flies and other insects.

Preparation tips: Holy basil can be used either fresh or dried. It makes a delicious invigorating tea and is often mixed with peppermint and/or lemon balm to make a refreshing beverage blend.

Burdock (*Arctium lappa*)

Parts used: roots for internal use, leaves in salves and for skin preparations.

Benefits: This is truly a superior tonic herb and is used both as a preventative and medicinal plant. Found in many parts of the world, burdock has a wide and varied reputation. In Japan, it is considered a premium vegetable and is often featured in good Japanese restaurants as gobo root. Lightly steamed and sprinkled with toasted sesame seed oil, you’d hardly recognize it as the tenacious backyard weed that it is. Burdock is rich in iron, magnesium, manganese, silicon, and thaimine among a host of other vitamins and minerals. If for no other reason than its ability to penetrate deep into the earth and draw forth its rich source of minerals, burdock would be included in our list of

tonic and longevity herbs. I consider it a very nearly perfect herb and feel that it often gets overlooked in preference of the more exotic tonic herbs.

Cooling and alkalizing, burdock is excellent for stagnant conditions of the blood and is an excellent blood purifier or alternative. It promotes healthy kidney function and expels uric acid from the body so is helpful for gout and rheumatism. It is also one of the best herbs there is for healthy radiant skin and I often recommend to teenagers with beautiful, but problematic skin. It is useful for all types of skin problems including dry, scaly conditions such as eczema and psoriasis and as a tea for hot spots on animals.

Burdock is rich in carbohydrates, constituting over 70 % of the dried root. The high carbohydrate content accounts for the soothing demulcent properties of burdock. Burdock is also rich in inulin.

Due to its wonderful tonic effects, its complete safety, and its ready availability, burdock should be considered daily as a tonic herb for radiant well being.

Preparation Tips: Burdock is delicious steamed and sautéed as a vegetable. Fresh young first year roots are dug in the fall or the spring of the second year. A favorite dish is grated steamed roots that have been lightly seasoned with toasted sesame seed oil. Burdock can be used in soups, stir fries, and in any manner that a carrot would be used in cooking. It makes a nice tea, especially when combined with other more flavorful herbs. It tinctures well in an 80% alcohol solution, but don't be alarmed by the thick white 'milk' that may settle in the bottom of your tincture bottle. That is the inulin content of the burdock.

Dandelion (*Taraxacum officinale*)

Parts used: leaf, root, flower

Benefits: This is, I'm convinced, one of the great tonic herbs of all times. Herbalists and gardeners have treasured this valuable plant for centuries planting it, tending it, and harvesting it for medicine and food. Only recently in history has it become the gardeners scourge thanks to the advertising efforts of Ortho.

The entire dandelion is a restorative and rejuvenating herb. The root is a prized digestive bitter and is used for all manners of digestive problems. It is particularly stimulating to the liver, inducing the flow of bile and cleaning the hepatic system.

The leaf is one of the best digestive bitters in the world and, in addition, has a beneficial effect on the kidneys restoring depleted kidney 'chi' or energy. It is considered one of the safest and most effective diuretics and tonifies the kidneys while aiding in proper water elimination. It is rich in potassium so doesn't deplete the kidneys of this important nutrient as do so many of the harsh synthetic diuretics. The jagged leaves are high in a host of vitamins and minerals including calcium, magnesium, iron and vitamins A and C.

Here in the perfect wholeness of one plant we have both a superior tonic for the kidneys and liver. It is a gloriously beautiful plant, tenacious, abundant and feisty as it stands up to tons of toxic spray yearly in this country. If you're looking for a revolution, this is a

good cause. Join Peter Gail, the dandelion man, as he educates the citizens of the U.S. to the wonder's plant. Each year Peter organizes a Celebration of Dandelion in Ohio and judging by the number of people who attend, he is meeting with great success.

Preparation tips: Dandelion is both a food and medicine. The young roots while still tender can be dug and can be added to stir fries, soups, and casseroles. They are bitter, so don't add them like you would carrots. The leaves, also a bitter, add a zesty flavor to salads and soups. Marinated in an oil vinegar dressing, they are almost tamed of their bitterness.

Gingko (Gingko biloba)

Parts used: leaf and fruit

Benefits: This herb is among those on the top of my list for longevity and radiant well being. In fact, I suggest it to everyone over 40, recommend it highly to everyone over 50 and prescribe diligently it to those over 60. Judging by the number of gingko products out there, this herb is a number of other people's favorite as well. An herb for the elderly, it's the sole remaining survivor of a large family of plants that date back several thousand years. In fact, there are fossil remains of gingko that date to the dinosaur era over 200 million years ago. Imagine, if you will, large ancient forests of gingko covering parts of the earth. This is certainly a plant that can teach us about aging graciously.

An excellent 'brain food' and 'memory enhancer', perhaps Gingko works in part because it holds the memories of an entire species, indeed, an entire age, in the cellular make up of its being. Though the fruits and seeds of gingko are considered of medicinal value, it is the fan shaped leaves that are used as a brain nutrient, herb for the circulatory system and over all tonic. Historical evidence from China relating the use of the leaf to improve brain function is supported by over forty years of clinical research in Europe. Extensive studies of the pharmacology, chemistry, and clinical effects of Gingko present solid and convincing evidence that Gingko is, in fact, an effective brain tonic. Of course, equally important and impressive is the fact that these scientific studies are backed up by several hundred years of people using it effectively.

The active compounds found in the leaf are three flavone glycosides (quercetin, isorhamnetin and luteolin) and bio-flavones. These compounds in combination with the other active ingredients of Gingko leaf improve circulation and vasodilatation. Though this action is evidenced throughout the entire body, it is most noted in the cerebral region. It is a promising remedy for age related declines in brain function such as Alzheimer's, strokes, and short or long term memory lose.

While most of the literature written about gingko focuses on its memory enhancing qualities some of its other outstanding features is over looked. One of the best herbs for the circulatory system, it serves as a cardiac tonic by increasing the strength of the arterial walls. It also reduces inflammation in the blood vessels, helps prevent platelet aggregation and blood clotting that can lead to blocked arteries. It is one of the best herbs available for promoting blood flow and oxygenation throughout the entire body. All this, and it definitely improves short and long term memory in most people who use it over a period of several weeks or months.

To be effective, Ginkgo must be used with consistency for a period of 2 to 4 months. Though the effects of Ginkgo are not sudden or dramatic, if taken over a period of time there is a noticeable increase of memory and vitality. Ginkgo works as a nutrient, not a drug, so it is necessary to be consistent and to use an adequate amount.

Ginger works as a memory enhancer by increasing circulation and vasodilatation in the cerebral region. Regular use of Ginkgo improves mental stability, memory function, and increases mental vitality. It is also an excellent herb for vertigo and is an effective remedy for tinninitus, or ringing in the ear. It is one of the best circulatory herbs we have. Ginkgo is an anti-oxidant and is useful against free radicals, substances that roam freely in the system and damage cellular health and accelerate aging. I suggest this as a wonderful tonic herb for anyone over 45.

You'll often find standardized Ginkgo products on the market. They are very effective for Alzheimer's disease and I would recommend the standardized products as well as tea and whole plant tincture. I have seen Ginkgo halt the progress of Alzheimer's and it may, in fact be, the most effective substance we have for slowing down this debilitating disease. However, for most other problems, it is not necessary to use ginkgo in standardized preparations to be effective.

Preparation tips: Some studies suggest that Ginkgo doesn't break down in water, but I have found it wonderfully effective as a tea. And since the ancients used it primarily in a water base, I'm unsure where the conclusion comes from that it doesn't work in water based preparations. It certainly works in tea. As a tea for memory aide it blends well with sage, rosemary and gota kola. As a circulatory tea, blend it with hawthorn and lemon balm. For stress and anxiety, especially when it's mental worry, blend it with oats and nettle. Ginkgo is often sold in tinctures and capsules, too. Both are very effective when using good quality products.

Gota Kola (*Hydrocotyle asiatica*, *Centella asiatica*)

Parts used: leaves

Benefits: This lovely small violet-like plant is a native to tropical and sub-tropical regions of the world. It grows easily in the warmer areas of the United States or can be grown in green houses for a daily fresh supply of the tasty little leaves. This is one of my favorite herbs for nourishing the brain and I use it frequently combined with ginkgo. It is especially recommended for memory loss. Considered one of the best nerve tonics, it has been used successfully in treatment programs for epilepsy, schizophrenic behavior, and Alzheimer's disease. Gota Kola improves the body's non-specific response to disease and stress.

Gota Kola is also an excellent stimulating nervine and is superb in formulas for nervous stress and debility. It gently, but firmly, increases mental alertness and vitality by feeding and nourishing the brain. Gota Kola has been used in India to promote intelligence and improve memory and has been observed in clinical studies to improve the behavior habits of mentally retarded children. It is also popular in China where it is valued as a longevity herb and to increase brain capacity. In this country, gota kola has been studied for problems with low energy, fatigue and decreased mental function with some promising results.

In the mountains of India, where gota kola is eaten almost daily as a wild green, it is the herb held responsible for the exceptionally long life (people frequently live to be over a 110 years old) of the elderly people of the villages. Senility is unknown among these villagers and long and short-term memory function does not decline with age.

'A leaf or two a day will keep old age away' ~an old Indian proverb

How does it work? According to recent studies done on this small plant, gota kola decreases the turnover of central transmitter substances such as serotonin, dopamine, and norepinephrine which helps facilitate and activate the learning process.

Most of the gota kola available commercially is of very poor quality. I recommend, if at all possible, growing this important herb or buying it from reliable sources. Buy only organically grown gota kola, as the commercial quality is unfit for human use. Good quality gota kola is quite tasty and makes a lovely addition to teas and, when fresh, is pleasant in salads.

Did you know that the elephant's favorite food in the wild is gota kola? And that the elephant is notorious for his long memory?

Hawthorn (Crataegus spp.)

Parts used: Leaf, flower, berries and tip of branches

Benefits: Hawthorn may well be the herb supreme for the heart and a healthy heart is essential to a long and productive life. The flowers, berries, tips of branches and leaf nourish, strengthen, and tone the heart muscle and its blood vessels. Hawthorn dilates arteries and veins, allowing blood to flow more freely and releasing cardiovascular constrictions and blockages. As a tonic for the heart it has the amazing amphortoric qualities of either gently stimulating or depressing the heart's activity as needed. Hawthorn is effective for arrhythmic or irregular heart beat and for heart palpitations.

I have found Hawthorn perfectly safe to use with heart medication, but should one decide to take it along with heart medication, consult with a holistic health care provider or a doctor knowledgeable about the use of herbs. So many articles and books about herbs give the rather futile advice to consult with your family doctor but unless your doctor is knowledgeable about herbs they won't be able to advise you wisely or informatively about the use of herbs. Better to consult with a practitioner knowledgeable about both conventional (allopathic) medicine and alternative or complimentary systems of healing.

Hawthorne is rich in oligomeric procyanidins, a complex of bioflavonoids well known for their ability to help the heart pump more efficiently in a threefold process; by increasing blood supply to the heart, increasing the output of blood and decreasing the blood vessel's resistance to normal blood flow. Because of the strong concentrations of bioflavonoids, Hawthorne is an effective anti-oxidant and is used to identify and fight free radicals in the system.

Though little is mentioned in the literature, Hawthorn is also a wonderful remedy for 'broken hearts' and for depression and anxiety. It is a specific medicine for those who have a difficult time expressing their feelings and/or who suppress their emotions. Hawthorn helps the heart to flower, to open and be healed. The hawthorn tree was planted in or near most herb gardens throughout Europe and has been revered and surrounded by legend for centuries. When my grandmother came to this country, she planted hawthorns in the yards of each home she lived in. Many of those old hawthorns planted by her strong worn hands still bloom.

This is a tonic herb and should be used over a period of time to be effective. Use in the form of tea, tincture, jam or jelly and extract. The general dose would be 1 tsp. of the tincture 3 X daily; 2 capsules 3 X daily; 3 – 4 cups of tea a day. Use hawthorn jam spread over crackers and toast to your hearts delight. Hawthorn is a specific herb for any heart condition including angina, edema, and heart arrhythmia. It can be used for high and low blood pressure, hypertension, and for heart palpitations

Licorice (*Glycyrrhiza glabra*)

Parts used: Roots

Benefits: This sweet root is an outstanding tonic herb for the endocrine system and is a specific for adrenal exhaustion so prevalent in mid and late life. What is often classified as midlife crisis may be more closely associated with adrenal exhaustion than an age related crisis. Licorice supports the adrenals and will revitalize them if used over a period of weeks or months. It supports the female system through the normal hormonal changes occurring as one reaches the apex of ones life.

Licorice is also highly regarded as a remedy for the respiratory system and is used as a soothing demulcent and anti-inflammatory remedy for respiratory problems. It's a long time favorite for coughs, sore throats and bronchial inflammation.

Because of its extremely sweet flavor, licorice is best used with other herbs. For Adrenal exhaustion, tiredness and fatigue drink a 2 – 3 cups of licorice tea a day blended with other longevity herbs such as astragalus, sarsaparilla, burdock root and dandelion. Licorice is often made into cough syrups for soar throats, mixed with pleurisy and elecampane for deep-seated bronchial inflammation and combined with marshmallow root for digestive inflammation and ulcers. Licorice can be used in tincture and capsules, and both because of its flavor and mucilaginous consistency it's often blended in teas and cough syrups.

Chinese Licorice (*Glycyrrhizae uralensis*), a close relative of *Glycyrrhizae glabra*, is considered one of the most important herbs in Chinese herbal medicine. It is known as the 'Grandfather of Chinese Herbs' and as the 'Great Adjunct' because it was used in so many different formulas to blend and harmonize the other herbs. It is a superior longevity herb and is used to restore and revitalize the entire system. Chinese licorice when used over a prolonged period of time is said to promote long life and produce radiant well being.

Preparation tips: Licorice is very sweet. Use its sweetness to your advantage when preparing it. It's often blended with other herbs to help flavor them and to alleviate unpleasant symptoms caused by the action of harsher herbs used in a formula without interfering with their beneficial qualities. It has a rich mucilaginous consistency and adds a soothing quality to any syrup or tea it's mixed with. I use licorice powder to flavor other herbal powders and then roll them into tasty little pills and balls.

Warning: Though there are many warnings against using licorice, it must be remembered that licorice is one of the most widely prescribed herbs in the world and there are very few cases of toxicity reported due to its use. It is safe for children and the elderly, which generally means it's safe for every one in between. It's particularly beneficial for those who suffer debilitating and wasting diseases. However, licorice is not recommended for individuals who have high blood pressure due to water retention. People who are on heart medication should also use licorice in only moderate amounts. Check with your holistic health care provider before using licorice if you're on heart medication. Though there has been studies indicating licorice's ability to induce water retention and thus raise blood pressure levels, most of the studies were done on licorice extracts, licorice candy, and allopathic medication not on the whole plant or crude preparations made from licorice root.

Lycci (*Lycium chinensis*)

Parts used: berries which are bright red and delicious

Benefits: This is one of my favorite tonic herbs and has a solid reputation as a longevity herb. It is delicious, colorful and is said to brighten the spirits. In China it has gained a reputation as a longevity herb because of it was among those herbs frequently used by long-lived sages. Li Ch'ing Yuen who lived to be over 200 years old was reported to enjoy the delicious Lycium berries and it was an essential ingredient in his 'long life soup'. Whether eating lycci daily leads to the path of a long life, there's no guarantee, but they do make life more enjoyable along the way. Lycci berries are a specific tonic to the liver and are used as a blood tonic. They are also a circulatory aide.

Preparation tips: The berries are quite tasty and can be eaten plain as snacks, added to cereals and used in baking in place of raisins. In fact, I often used them in recipes that call for raisins as I enjoy the effects and flavor better. They also add a nice touch of sweetness to tea. A famed longevity tonic formula is the combination of equal proportions of Schizandra and Lyccio berries. 2 –3 cups drank over a couple of weeks is said to brighten the spirit and promote cheerfulness. I also like to soak Lycii berries in fruit juice and or wine for a delicious tonic drink.

Milk thistle (*Silybum marianum*)

Parts used: seeds primarily, though wild food enthusiasts enjoy the leaves as food.

Benefits: Milk thistle seed is a powerful antioxidant and helps fight the damaging effects of free radicals in the system decreasing or eliminating many age related diseases. It is most famous for its powerful and beneficial effects on the liver. It delivers anti-oxidant compounds directly to the liver, stimulates basic liver function and rebuilds damaged liver cells. Its tonifying actions make it a valuable component of cleansing programs and an important supplement for those whose livers have been damaged by illness, rich food,

hepatitis or alcohol consumption. There is no better herb, or medication for that matter, known for restoring damaged liver cells

“My opinion is that this is the best remedy that grows, against all melancholy diseases”, John Gerard wrote in the 16th century. Melancholy referred to diseases of the liver. In the 17th century, famed herbal/astrologer Nicholas Culpepper decreed milk thistle good for ‘removing obstructions of the liver and gall bladder’. German researchers taking a lead from these and other early uses of milk thistle began researching milk thistle in the 1970’s to discover that it contained one of the most valuable chemicals for damaged liver tissue.

Over 30 years ago, German researchers taking a lead from early herbal manuscripts, began studying the effects of milk thistle seeds. Few herbs have been studied so much, so thoroughly. There have been over 300 clinical studies performed at last count on milk thistle, all proving what the ancients knew, it has a profound positive influence on the liver and gall bladder.

The seeds are rich in a substance called Silymarin that aids the liver in producing a powerful anti-oxidant called glutathione. Studies show that silymarin will increase the production of glutathione up to 50% in liver cells and decrease free radical damage significantly. Deemed impossible at one time, silymarin actually stimulates the liver cells to regenerate through a process known as protein synthesis.

Milk Thistle seed has remarkable abilities to protect the liver against damaging chemicals. It is the only known substance to provide any hope at all from deathcap (*Amanita phalloides*) poisoning, the most virulent liver toxin known. Matthew Wood, a well-known contemporary herbalist, tells the story of a close friend of his whom had mistakenly eaten the deadly *Amanita*. Thankfully, he had Milk thistle seed extract on hand and was able to treat her on the way to the hospital. Both she and the doctors credit her survival to the milk thistle extract that Matthew so aptly administered.

Milk Thistle seeds seems to work in a number of ways against toxic substances. Along with its powerful anti-oxidant effects, it occupies binding sites in the liver preventing toxic substances from destroying or altering cell membranes. It also can stimulate cells to change their outer membrane so that toxic substances can’t permeate them. Milk thistle seed puts up an effective barrier against many types of metabolic and environmental toxins.

Though an amazingly powerful herb, milk thistle seed is non-toxic and can be used effectively both as a therapeutic agent and a preventive tonic herb.

Since the liver is essential to over all health and vitality and is directly involved in the homeostasis process of every part of the body, milk thistle seed with its remarkable ability to cleanse and protect the liver is a vital tonic herb.

Preparation tips: I’ve found the most effective method to extract the active ingredients from the hard seed of the milk thistle, is to grind them in a coffee mill or smash them

with a hammer. The resulting powder is tasty and can be made into a tea, added to cereal and soups, or encapsulated. When tincturing milk thistle seed, grind the seed with some of the alcohol in a blender. This will better enable all of the healing properties of the seed to be rendered into the alcohol and start the tincturing process quicker.

Nettles (*Urtica dioica*)

Parts used: leaves, seeds, and roots

Benefits: This is the stinging nettle that farmers despise, hikers hate, and children learn to deplore. But herbalists around the world fall at the feet of this green goddess/green man herb. It is truly among every herbalist's list of top ten favorites. I am convinced it is one of the superior tonic herbs and is as important as many of the famous Chinese 'long life' herbs. What's so special about this prickly somewhat inconspicuous plant? It is a vitamin factory, rich in iron, calcium, potassium, silicon, magnesium, manganese, zinc, and chromium as well as a host of other vitamins and minerals. It activates metabolism by strengthening and toning the entire system. It is a wonderful endocrine system tonic and is used to strengthen the reproductive system. It's a superb herb for the genito-urinary system and will strengthen weak kidneys, essential for vitality and energy. It is indicated for liver problems and is excellent for allergies and hay fever. All this and it tastes good, too. Nettle is most often served as tea, but its delicious steamed and served as a green. Try it in place of spinach in Spanikopita (Greek Spinach pie) or steamed with feta cheese and olive oil. You must make sure that the nettle has been thoroughly cooked or you're likely to get pricked while eating it.

Nettle is a superior alternative and is used in tea, tincture and capsule form for any liver disorder. For the nervous system it combines well as a tea with lemon balm, oats and chamomile. Freeze dried capsules are one of the best ways to use nettle for allergies and hay fever. For urinary health, drink several cups of nettle tea combined with dandelion greens. This combination is especially useful for edema.

Preparation tips: Nettle has a rich green flavor and lends itself well to tea blends. I include it many of my medicinal teas for the nervous system, reproductive system, liver urinary system and, most importantly, for daily well being and health. Combined it with green milky oat tops and raspberry leaf for reduced energy and sexual dysfunction. For liver disorders and congestion, mix with burdock root. For urinary disorders and/or water retention, combine with dandelion greens. When combined with saw palmetto and made into a tincture, it is excellent to decrease prostate enlargement. The tips of the nettle plant in early spring and summer are superior, though I've eaten them throughout the season. If you have a good stand of nettles nearby, it is good practice to trim them constantly throughout the season. They will keep producing those tasty tops until fall. The seeds are collected in the fall of the year and provide a wonderful energy life. Ryan Drum, herbalist and wildcrafter extraordinaire, suggests the seeds are among the best and most nourishing of herbal stimulants. The roots traditionally have been steamed and eaten, though most people ignore them in favor of the tender tops.