



Body Systems Herbs and Iridology

Welcome everyone!



Body Systems

The Action of Herbs

- ▶ Adaptogenic
- ▶ Alternative
- ▶ Anthelmintic
- ▶ Anti-inflammatory
- ▶ Antimicrobial
- ▶ Antispasmodic
- ▶ Astringent
- ▶ Bitter
- ▶ Carminative
- ▶ Demulcent



- **Adaptogenic** - Adaptogenic herbs increase resistance and resilience to stress, enabling the body to adapt around the problem and avoid reaching collapse. Adaptogens work by supporting the adrenal glands.
- **Alternative** - Alternative herbs gradually restore proper functioning of the body, increasing health and vitality.
- **Anthelmintic** - Anthelmintic herbs destroy or expel intestinal worms.
- **Anti-inflammatory** - Anti-inflammatory herbs soothe inflammations or reduce the inflammatory response of the tissue directly. They work in a number of different ways, but rarely inhibit the natural inflammatory reaction as such.
- **Antimicrobial** - Antimicrobials help the body destroy or resist pathogenic (disease-causing) microorganisms. Herbs help the body strengthen its own resistance to infective organisms and throw off illness. While some contain chemicals that are antiseptic or poisonous to certain organisms, in general they aid the body's natural immunity.
- **Antispasmodic** - Antispasmodics ease cramps in smooth and skeletal muscles. They alleviate muscular tension and can ease psychological tension as well.
- **Astringent** - Astringents have a binding action on mucous membranes, skin, and other tissue. They have the effect of reducing irritation and inflammation, and creating a barrier against infection that is helpful to wounds and burns.
- **Bitter** - Bitter herbs with a bitter taste have a special role in preventative medicine. The taste triggers a sensory response in the central nervous system leading to a range of responses, including stimulating appetite and the flow of digestive juices; aiding the liver's detoxification work; increasing bile flow, and motivating gut self-repaired mechanisms.
- **Carminative** - Carminative plants are those that are rich in aromatic volatile oils that stimulate the digestive system to work properly and with ease. They soothe the gut wall; reduce any inflammation that might be present; and ease griping pains and help with the removal of gas from the digestive tract.
- **Demulcent** - Demulcent herbs are rich in mucilage and soothe and protect irritated or inflamed tissue. They reduce irritation down the whole length of the bowel, reduce sensitivity to potentially corrosive gastric acids, help prevent diarrhea, and reduce the muscle spasms that cause colic.



Body Systems

The Action of Herbs

- ▶ Diuretic
- ▶ Emmenagogue
- ▶ Expectorant
- ▶ Hepatic
- ▶ Hypotensive
- ▶ Laxative
- ▶ Nervine
- ▶ Stimulating
- ▶ Tonic



- **Diuretic** - Diuretic herbs increase the production and elimination of urine. They help the body eliminate waste and support the whole process of inner cleansing.
- **Emmenagogue** - Emmenagogue herbs stimulate menstrual flow and activity. With most herbs, however, the term is used in the wider sense for a remedy that affects the female reproductive system.
- **Expectorant** - Expectorant herbs stimulate removal of mucous from the lungs. Stimulating expectorants “irritate” the bronchioles (a subdivision of the bronchial tubes) causing expulsion of material. Relaxing expectorants soothe bronchial spasm and loosen mucous secretions, helping in dry, irritating coughs.
- **Hepatic** - Hepatic herbs aid the liver. They tone and strengthen the liver and in some cases increase the flow of bile. In a broad holistic approach to health they are of great importance because of the fundamental role of the liver in maintaining health by not only facilitating digestion but by removing toxins from the body.
- **Hypotensive** - Hypotensive herbs are plant remedies that lower abnormally elevated blood pressure.
- **Laxative** - Laxative herbs are plants that promote bowel movements. They are divided into those that work by providing bulk, those that stimulate the production of bile in the liver and its release from the gallbladder, and those that directly trigger peristalsis (wavelike contractions of the smooth muscles of the digestive tract).
- **Nervine** - Nervine herbs help the nervous system and can be subdivided into three groups. Nervine tonics strengthen and restore the nervous system. Nervine relaxants ease anxiety and tension by soothing both body and mind. Nervine stimulants directly stimulate nerve activity.
- **Stimulating** - Stimulating herbs quicken and invigorate the physiological and metabolic activity of the body.
- **Tonic** - Tonic herbs nurture and enliven. They are used frequently in traditional Chinese Medicine and Ayurvedic Medicine, often as a preventative measure. Tonic herbs like ginseng build vital energy, or qi.



Body Systems

How to use Herbs

- ▶ Compresses
- ▶ Decoctions
- ▶ Essential Oils
- ▶ Extracts
- ▶ Herbal Vinegars
- ▶ Infusions
- ▶ Ointments



Compresses. A compress is a cloth soaked in a warm or cool herbal solution and applied directly on the injured area.

Decoctions. A tea is made from the bark, root, seed, or berry of a plant. Decoctions should not be boiled; they should only be simmered for approximately twenty to thirty minutes, unless the product label states otherwise.

Essential Oils. Essential oils are derived from herbs or other plants through steam distillation or cold pressing. They are usually mixed with a vegetable oil or water, and used either as a mouth, ear, or eyewash, or as an inhalant, douche, or tea. These oils can also be used externally in massage or on burns and abrasions. Essential oils readily combine with the natural fats present in the skin. With a few exceptions, such as the use of camphor, eucalyptus, or tea tree oil for certain skin conditions, essential oils should always be diluted in either water or oil before being applied to the body, and they should not be taken internally except under the direction of a physician trained in their use.

Extracts. Extracts are made by pressing herbs with a heavy hydraulic press and soaking them in alcohol or water. Excess alcohol or water is allowed to evaporate, yielding a concentrated extract. Extracts are the most effective form of herbs, especially for people with severe illnesses or malabsorption problems. Alcohol-free extracts, if available, are usually best. Herbal extracts should generally be diluted in a small amount of water before being ingested. The following are some herbal extracts that are very beneficial in healing. They can be found in health food stores. Add these extracts to juices, and take them while fasting for greatest benefits.

Herbal Vinegar's. Herbs are put into raw apple cider vinegar, rice vinegar, or malt vinegar and left to stand for two or more weeks.

Infusions. Leaves, flowers, or other delicate parts of the plant are steeped, not boiled, for five to ten minutes in hot water, so that the benefits of the herbs are not destroyed. (See Herbal Teas and Their Effects, below.)

Ointments. An extract, tea, pressed juice, or powdered form of an herb is added to a salve that is applied to the affected area.



Body Systems

How to use Herbs

- ▶ Poultices
- ▶ Powder
- ▶ Syrup
- ▶ Salves
- ▶ Teas
- ▶ Tinctures

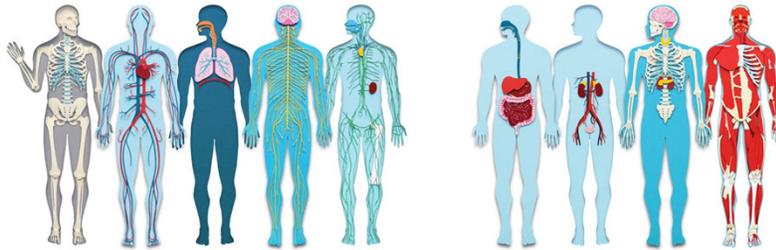


- Poultices. A poultice is a hot, soft, moist mass of herbs, flour, mustard, or other substance spread on muslin or other loosely woven cloth and applied for up to twenty-four hours on a sore or inflamed area of the body to relieve pain and inflammation. Ground or granulated herbs are best. The cloth should be changed when it cools.
- Powder. The useful part of the herb is ground into a powder, which may then be made into capsules or tablets.
- Syrup. Herbs are added to a form of sugar and then boiled.
- Salves. Salves, creams, oils, and lotions are generally used on bruises, sores, and inflammations, and for poultices.
- Herbal Teas are the most convenient form of herbal remedy for long-term use. The powerful ingredients of the herb are diluted by water when made into tea. Mild teas may be used daily as tonics and for general well being. To prepare an herbal tea, use approximately 1 to 3 teaspoons of herbs per cup of boiling water. Boil water in a kettle as you would for ordinary tea, but do not use an aluminum kettle. Pour the water into a ceramic or glass (not metal) mug or teapot and leave the herbs to steep for at least five minutes (but don't leave them for longer than ten minutes or the tea may have a bitter taste). If you prefer a stronger tea, increase the amount of herbs used rather than steeping the tea for a longer period.
- Tinctures. Tinctures are a well-preserved form of previously fresh herbs. Most tinctures contain varying amounts of alcohol; however, there are now some on the market that contain less alcohol, and some that are alcohol-free.



Body Systems

- Circulatory
 - Digestive
 - Endocrine
 - Integumentary
 - Immune
 - Intestinal
- Muscular
 - Nervous
 - Reproductive
 - Respiratory
 - Structural
 - Urinary



Sclera Signs

Blue Sclera

Encapsulation Sign

Indicator Vessel

Meandering Vessel

Pinguecula

Spiral Vessel

Trauma Fork

Yellow Sclera

Brown Pigmentation

Fermentation Sign

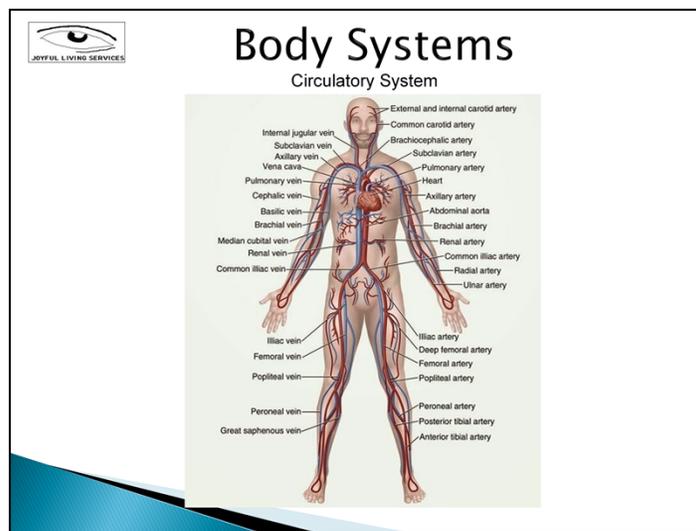
Lunula

Netting Vessels

Pterygium

Tangential Vessel

Vessel Pools

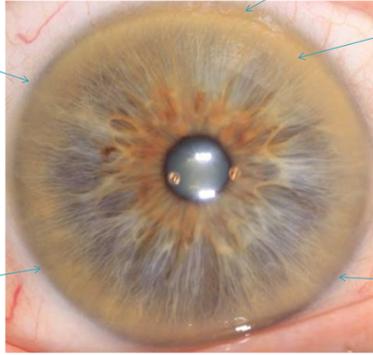


- In order for your body to stay alive, each of its cells must have a continuous supply of food and oxygen. At the same time, carbon dioxide and other waste materials produced by the cells must be picked up for removal from the body. The circulatory system performs these two functions.
- The human heart makes the circulatory system work. A hollow, pear-shaped, muscular organ, the heart is located between the lungs in the middle of the chest. It pumps blood through the body, supplying cells and tissues with oxygen and nutrients. In order to meet your body's energy demands, your heart must beat more than 100,000 times per day.
- Like all other body tissues, your heart also needs oxygen and nutrients in order to function properly. Because blood flowing through the heart is traveling too fast for the heart to absorb, the heart has its own system of vessels that supply it with oxygen and nutrients.
- The heart contains four chambers: the upper chambers are called atria and the lower chambers are ventricles. Each half of your heart works as a separate pump. The right side of the heart is responsible for returning the oxygen-poor blood to the lungs to expel carbon dioxide and reoxygenate the blood. The left side receives the newly oxygenated blood from the lungs and pumps it through the entire body. Although the average adult body contains less than 1.5 gallons of blood, amazingly the heart pumps 2,000 gallons each day.
- Blood vessels are small tubes that carry blood to and from all parts of the body. The human circulatory system is composed of three types of vessels that total an incredible 60,000 miles in length.
- The arteries are the largest blood vessels. They carry oxygen-rich blood from the heart to the cells and tissues of the body. Because arteries transport under high pressure, they have walls that are much more elastic than veins. The arteries pulsate as a result of the force with which the heart pumps new blood into them.
- The veins are smaller vessels that carry oxygen-poor blood and waste products back to the heart. This blood moves slowly due to low pressure. Veins can expand or contract to accommodate variations in blood flow. Semilunar valves are found at regular intervals throughout the veins. These force the blood to move in only one direction.
- Capillaries are microscopic in size. They link the arteries and veins to the tissues of the body. The exchange of oxygen and carbon dioxide takes place across thin capillary walls.
- Blood supplies oxygen and transports nutrients, waste and hormonal messengers to each of the billions of cells in the body. Blood has four main components: red blood cells, white blood cells, platelets and liquid plasma. Red blood cells carry 99 percent of the oxygen the body needs and are the most abundant cells in the body, constituting 45 percent of the blood. White blood cells comprise an important part of the body's immune system. Their main function is providing defense against infectious agents. Platelets are tiny, specialized cells that are activated whenever blood clotting or blood-vessel repair is needed. Liquid plasma carries the other 1- percent of the oxygen the body needs and also helps repair damaged blood vessels. To do this, plasma is transformed into thin strands that create a protective mesh over the damaged area.



Body Systems

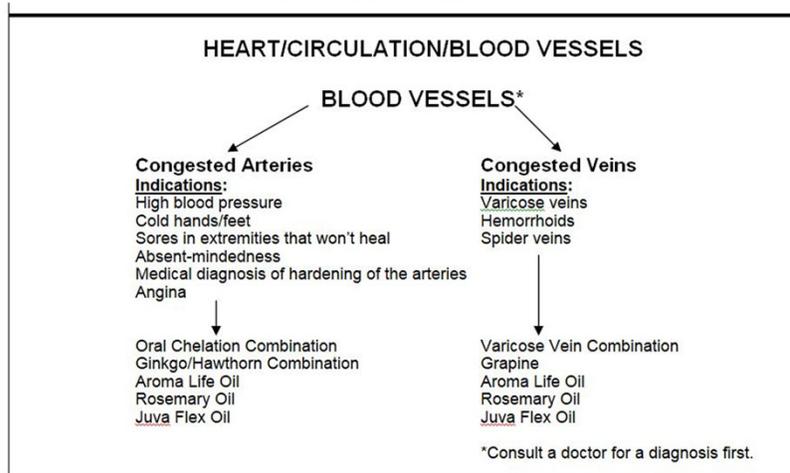
Circulatory System





Body Systems

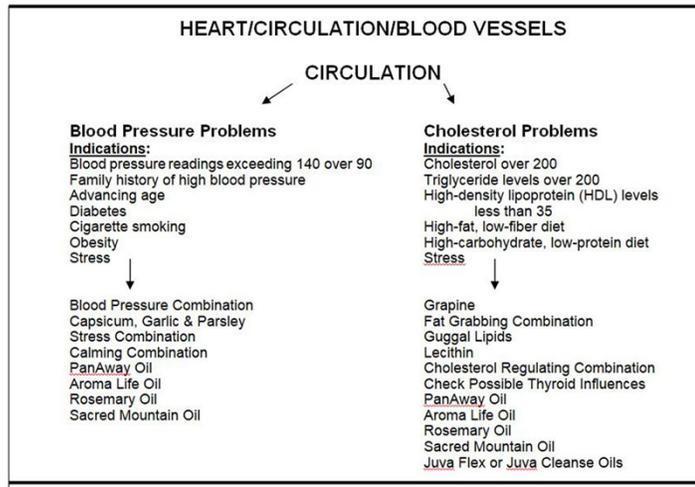
Circulatory System Flow Chart





Body Systems

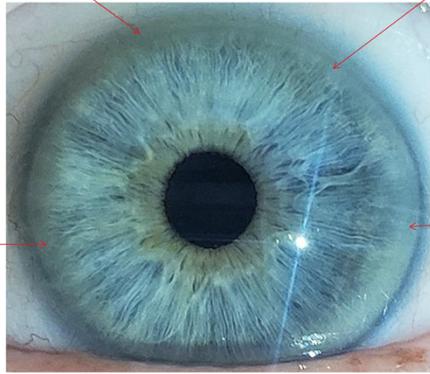
Circulatory System Flow Chart





Body Systems

Circulatory System - Circulation





Body Systems

Circulatory System Flow Chart

HEART/CIRCULATION/BLOOD VESSELS

HEART*

Indications:

Crease in ear lobe
Large, red, bulbous nose (rule out acne, rosacea or alcohol)
Crease in tongue from tip to back
Cold hands and feet
Swelling in the feet and ankles
Chest Pain
Family history of heart disease



Cardiovascular Combination
CoQ10
Magnesium
Aroma Life Oil
Peace and Calming Oil
Longevity Oil
Valor Oil

*Consult a doctor for a diagnosis first.

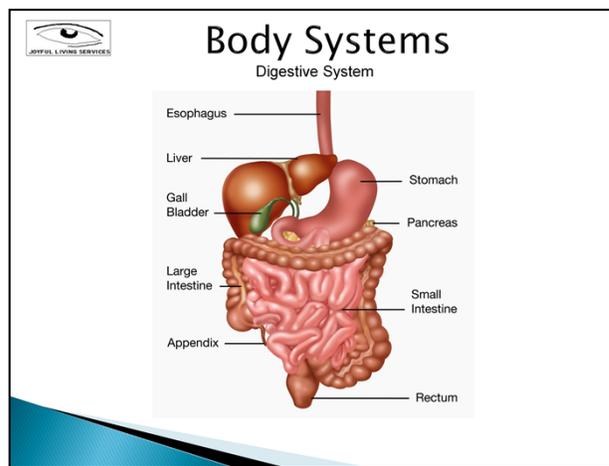


Body Systems

Circulatory System Chelation Program

- The kidneys and liver will remove the calcium, cholesterol and impurities from the body.
- As the body removes the plaque from the walls of the arteries, the blood cholesterol levels will temporarily rise. This is normal.
- If there are indications that these organs are weak, it may be necessary to give them extra support.
- People with kidney weakness (history of symptoms like arthritis, chronic back pain, urinary infections, etc.) should take two KB-C with each meal.
- People with liver weakness (history of high cholesterol, skin problems, digestive upset, etc.) should take 1 teaspoon LOCLC in a large glass of water or juice upon arising and before retiring, plus two LIV-C with each meal.

- **Caution** - The following program is based on the Nature's Sunshine Mega-Chel product as well as other Nature's Sunshine products. If you wish to use these products for this program please contact JLS. If you wish to follow a different oral chelation program, please follow the program that is advised for the product that you wish to use. Do not use this program with any products other than those Nature's Sunshine products listed below.
- **General Instructions** - It is important to start slowly with this program and follow instructions. Otherwise, symptoms such as nausea, dizziness, headaches and skin eruptions may occur. It is also important to taper off as instructed, or fatigue and temporary nutritional deficiencies may result.
- **Working up to a Full Dose:** For the first week, take the following with breakfast and dinner:
- 1 tablet of Mega-Chel, ½ ounce of Colloidal Minerals OR 1 tablet of Mineral Maintenance. Every week increase the amount of Mega-Chel by one tablet. The second week, take two tablets of Mega-Chel and two tablets of Mineral Maintenance with breakfast and dinner. Continue this until you reach full program status (up to 12 tablets a day). If you are using Colloidal Minerals, gradually increase the amount of this supplement until you are taking 1 ounce in the morning and 1-ounce at night.
- **Full Program** - A full dose of Mega-Chel is 4-6 tablets twice daily, depending on body weight. Large people should take 6 tablets twice a day. Small people should take 4 tablets twice a day. Individuals of average height and weight should find 5 tablets twice a day sufficient.
- When you reach full dose, you will be taking the following with breakfast and dinner: 4-6 Mega-Chel tablets, 1 ounce of Colloidal Minerals OR 4-6 Mineral Maintenance tablets. Stay on this full dose for a least one-month for each 10 years of your age. For example, if you are 40 you need to stay on the full dose for at least four months, six months if you are 60, etc.
- **Tapering Off** - It is critical that you taper off slowly. On the full program you are taking large doses of certain vitamins and minerals, and your body will get lazy about extracting them from food. If you quit all at once, your body may experience a sudden drop in nutrient levels until it readjusts to absorbing these vitamins and minerals from food. Taper off by reducing the amount of tablets you take each week by two. After completing the program, some people use Mega-Chel as their daily vitamin and mineral supplement by taking two tablets per day.
- **Cleansing Reactions** - As the body removes the plaque from the walls of the arteries, the blood cholesterol levels will temporarily rise. This is normal. The kidneys and liver will remove the calcium, cholesterol and impurities from the body. If there are indications that these organs are weak, it may be necessary to give them extra support. People with kidney weakness (history of symptoms like arthritis, chronic back pain, urinary infections, etc.) should take two KB-C with each meal. People with liver weakness (history of high cholesterol, skin problems, digestive upset, etc.) should take 1 teaspoon LOCLC in a large glass of water or juice upon arising and before retiring, plus two LIV-C with each meal.
- You may also wish to add some of the following supplements for special problems. Work up to these amounts gradually if you wish. For heart problems, take two HSII or two Hawthorn Berries capsules with each meal. For mental support, take two Ginkgo & Hawthorn combination capsules with each meal. For varicose veins and high risk for stroke, take two Butcher's Broom capsules with each meal.



- After food is chewed and swallowed, it passes through the esophagus and enters the stomach. The stomach secretes hydrochloric acid and certain enzymes to begin the breakdown and sterilization of the food. The stomach is particularly important to the digestion of proteins. Typically, the stomach will hold about a quart of food or liquid, but its muscular walls can expand to hold much more than this.
- The stomach is lined with a durable mucous coating that protects it from hydrochloric acid and other gastric juices. Ulcers form when a portion of this mucous lining wears thin, and the digestive juices aggravate the stomach.
- The bulk of nutrient assimilation takes place in the small intestine. The circulatory system carries nutrients from the small intestine to the cells of the body. The small intestine is lined with tiny fingerlike projections called villi and tinier cytoplasmic projections called microvilli. These villi increase the surface area of the intestine and allow for more efficient nutrient absorption. The average adult's small intestine is 10-13 feet long, and about one inch in diameter. Because of the villi and microvilli, the total surface area of the small intestine is about 180 square meters – just smaller than a tennis court.
- The first 10 inches of the small intestine is known as the duodenum; it is the most important section in digestion. Here, enzyme secretions from the pancreas and bile secretions from the liver mix with the food and break down carbohydrates, proteins and fats into smaller units. The body can assimilate these nutrients in smaller forms and use them for energy. The duodenum also secretes lactase to digest milk products, and sucrase and maltase to break down sugars.
- The next sections of the small intestine are the jejunum and the ileum. In this combined 9-12 foot segment, an additional 2-3 liters of intestinal juices are secreted each day. Because food particles have to be a certain size before they can be absorbed into the bloodstream, digestion and assimilation in this section can take several hours. The villi and microvilli absorb tiny nutrients that travel through the lymph vessels or into capillaries for transport to the liver. After the liver filters and processes these nutrients, they are sent throughout the body.
- The pancreas is an important part of the digestive process, producing approximately three pints of digestive juices each day. These juices pass through the pancreatic duct into the small intestine. This organ also controls the amount of sugar in the blood by secreting two hormones, glucagon and insulin. Insulin and glucagon work as a check-and-balance system, regulating the body's blood sugar level.
- The liver is also critical to digestion. It is located in the right side of the upper abdomen, under the diaphragm. This is the largest internal organ in the body, weighing about 3-4 pounds. The liver is composed of groups of cells called lobules. Anywhere from 50,000 – 100,000 lobules make up the liver, and each lobule has a central vein that drains blood into the hepatic veins, which eventually carry it to the heart. The liver produces bile, which breaks down, or emulsifies, fats. Bile drains from the liver lobules into the branches of the bile ducts that lead to the gallbladder, where it is stored.
- All told, the liver performs more than 500 functions, many of them of a processing or storage nature. The liver processes potential poisons for removal from the body, including alcohol and drugs. It also breaks down old red blood cells and reprocesses body substances, extracting iron from hemoglobin, and reusing amino acids.
- The liver stores carbohydrates as glycogen, which can be quickly converted into glucose (for energy) if needed by the brain, muscles or other organs. It also stores certain nutrients like vitamins (A, B-complex, B₁₂, D, E and K), releasing them into the blood when the body needs them. These reserves can last several months. The proteins albumen, globulin and fibrinogen – all components of blood plasma – are also manufactured in the liver.



Body Systems

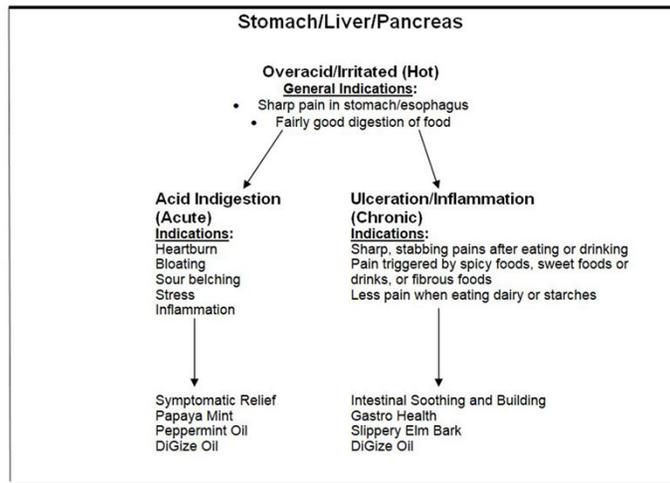
Digestive System





Body Systems

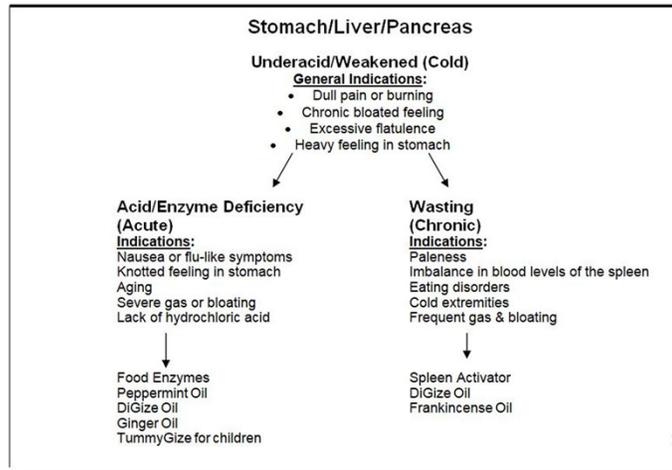
Digestive System Flow Chart





Body Systems

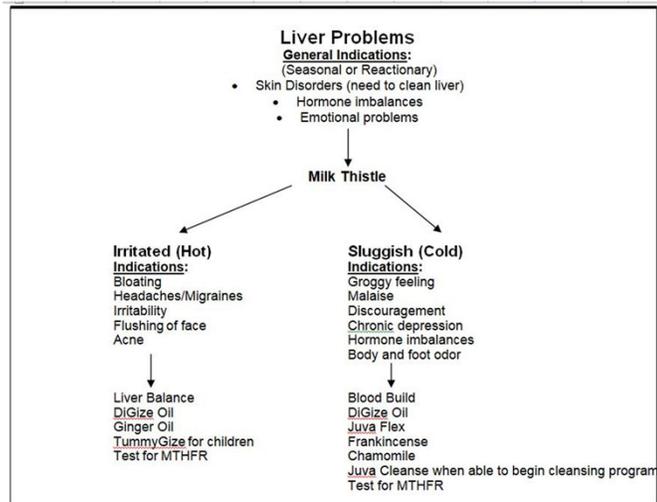
Digestive System Flow Chart





Body Systems

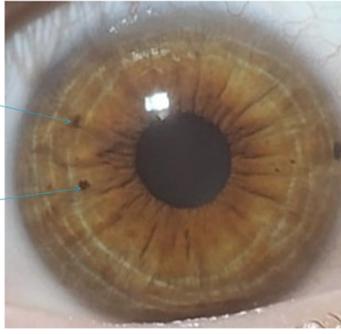
Digestive System Flow Chart





Body Systems

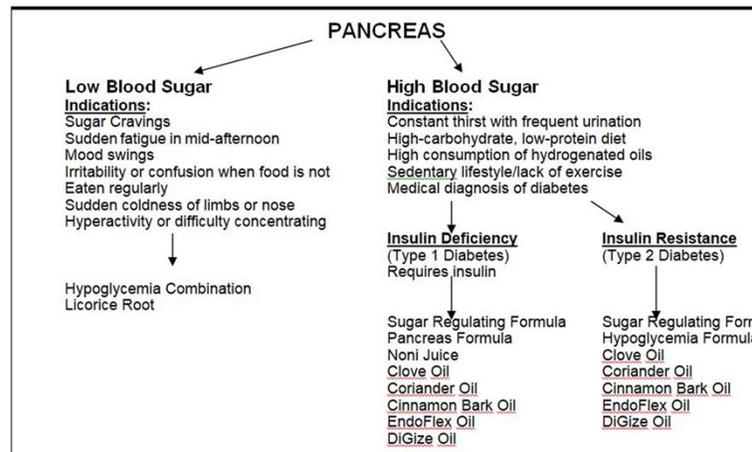
Digestive System - Liver





Body Systems

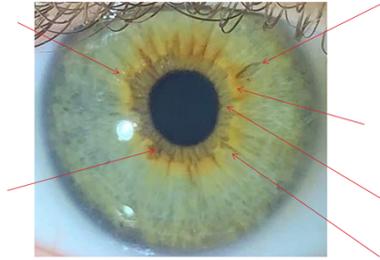
Digestive System Flow Chart





Body Systems

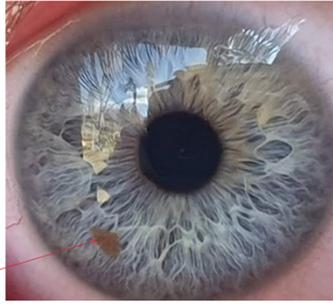
Digestive System – Pancreas

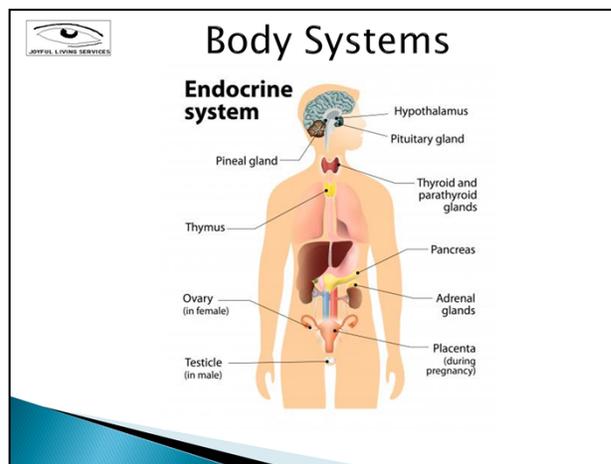




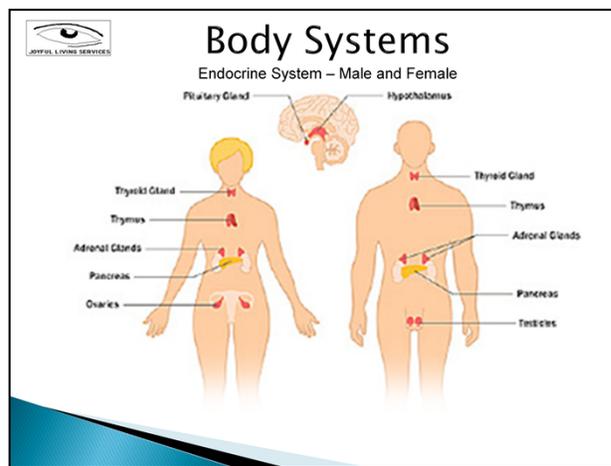
Body Systems

Digestive System – Pancreas





- While the glandular system communicates using hormones, the nervous system uses electrical impulses and chemicals called neurotransmitters to relay fast, short-lived messages. Some neurotransmitters, e.g., noradrenaline, also act as hormones and may be secreted in more than one place throughout the body. Both neurotransmitters and hormones bind to receptor cells to initiate responses.
- The nervous and glandular systems are linked by the hypothalamus – the control center for the body’s emotional and physical responses. The hypothalamus, part of the brain stem, has been found to control hunger, thirst, blood pressure, pain, pleasure, water balance, temperature, sexual desire, hostility and many other emotions and responses. However, it is not the only area of the brain associated with emotions. Many structures, including the hypothalamus, make up the limbic system, an area of the brain that processes feelings and emotions.
- The relationship between the hypothalamus and the pituitary gland provides the link between the nervous and glandular systems. The pituitary is a small gland located at the base of the brain. Many refer to it as the master gland because it regulates the release of hormones from most other glands, much like the maestro of a symphony directs all the musicians to play together to produce harmonious music. Divided into two lobes, the anterior and posterior, the pituitary is a double gland. Some hormones are produced in the hypothalamus and stored in the posterior lobe of the pituitary. The hypothalamus also manufactures hormones that stimulate the release of other hormones from the anterior pituitary. These are called releasing, or tropic hormones.
- Many glands have a “feedback loop” that prevents the over-secretion of certain hormones. For instance, if the anterior pituitary secretes thyroid-stimulating hormone (TSH), the thyroid subsequently releases thyroxine and tri-iodothyronine, two hormones that trigger an increase in metabolism. These hormones inhibit the release of TSH so the thyroid will not be stimulated by the anterior pituitary.
- The pituitary also produces hormones that it secretes directly into the bloodstream. One of these, growth hormone, is responsible for growth, development, protein synthesis, the breakdown of fats, and increases in blood sugar levels. Other hormones produced by the pituitary and secreted directly into the bloodstream include prolactin, which stimulates milk secretion in females; follicle-stimulating hormone (FSH), which stimulates the growth of ovarian follicles in females and seminiferous tubules in males; and luteinizing hormone (LH), which initiates ovulation during the menstrual cycle.
- The pineal gland is a small, pea-sized gland located in the center of the brain. It is associated with biological responses to light and regulation of the body’s circadian rhythms such as sleep. Exposure to light inhibits the secretion of melatonin, a pineal hormone, and darkness stimulates it. Secretion of this natural antioxidant peaks around midnight and troughs in the morning. Melatonin production decreases with age.
- The thymus gland is located behind the upper part of the breastbone and produces the hormone thymosin. Thymosin plays a role in immune response.
- Just above the thymus, in the neck, is the thyroid gland. The thyroid secretes two different hormones; thyroxine and tri-iodothyronine (mentioned previously). Together, these two hormones regulate metabolism, growth and development. Calcitonin, another thyroid hormone, regulates blood levels of calcium, preventing excessive amounts from being released into the blood.
- The parathyroid gland lies adjacent to the thyroid. Parathyroid hormone (PTH) acts as an antagonist to calcitonin to increase calcium levels in the blood by stimulating its release from the bones. At the same time, PTH causes the kidneys to excrete phosphate, which is also released from the breakdown of bone. The kidneys, intestines and bones all play a role in maintaining proper blood levels of calcium and phosphate.



- The adrenal glands are located on top of the kidneys. Each gland is divided into two parts, the cortex and the medulla. The adrenal cortex (outer layer) produces “cortical” steroid hormones from cholesterol. Among the many cortical steroid hormones produced by the adrenal cortex are the sex hormones, DHEA, cortisone and aldosterone. The sex hormones signal development of secondary characteristics such as facial hair and a deeper voice DHEA (dehydroepiandrosterone), an intermediate hormone, aids in the production of sex hormones. Cortisone and its derivatives (called the glucocorticoids) help maintain normal blood sugar levels by stimulating formation of carbohydrates from protein and fat through secretion of enzymes from the liver. These glucocorticoids also decrease inflammation, help repair damaged tissue and act as the body’s buffer for stress.
- Another cortical steroid hormone is aldosterone, which regulates mineral balance within the body by stimulating the absorption of sodium, chloride and water, and decreasing absorption of potassium by the kidneys. A careful balance of these minerals is vital for proper function of the sodium-potassium pump, which transports molecules into cells, and for conduction of nerve impulses.
- Many plants produce hormones similar to the cortical steroid hormones; these are often called phytosteroids, and in the body they act similarly to the way the cortical steroid hormones function.
- The medulla (or inner layer) of the adrenal gland produces adrenaline and noradrenaline. These hormones stimulate the sympathetic nervous system in fight-or-flight responses. When the body senses stress – whether it be emotional, physical or environmental – elevated blood pressure, increased blood sugar, accelerated heart rate and constricted blood vessels can result as the body redistributes its energy in order to deal with the stress. Simultaneously, functions that are less crucial to survival (like digestion and elimination) temporarily stop.
- The ovaries are the female sex organs that produce estrogen and progesterone. Estrogen maintains and helps develop other female sex organs, stimulates secondary sexual characteristics and stimulates growth of the uterine lining during the first two weeks of the menstrual cycle. Progesterone has been called the pregnancy hormone because it prepares the uterus for the fertilized egg during the last two weeks of menstruation and helps maintain a healthy fetus during pregnancy.
- The male hormone testosterone is produced in the testes, the main male reproductive organs. Testosterone stimulates development of sperm cells in men, maintains and develops male reproductive organs, and is responsible for male secondary sexual characteristics.
- The pancreas is a digestive organ that also functions as a gland. It secretes glucagon, which converts glycogen into glucose, and insulin, which acts as an antagonist to glucagon to prevent excessive levels of blood glucose. Both of these conversions involve enzymes produced by the liver.
- The digestive tract also contains hormones. Gastrin, secreted in the stomach, triggers secretion of gastric juices and enzymes in the pancreas. Stomach acidity causes the release of secretin in the small intestines, which in turn causes the pancreas to secrete its enzymes, and stops the secretion of acid. Cholecystokinin (CCK) stimulates the gallbladder to secrete bile.
- Proper nutrition is crucial to the function of this complex system. Most glands need increased amounts of particular minerals to function as enzymes in their reactions. For example, the pancreas needs chromium, the prostate requires zinc, and the thyroid uses iodine. Many problems with the glandular system are associated with poor nutrition and low levels of these minerals in the diet.



Body Systems

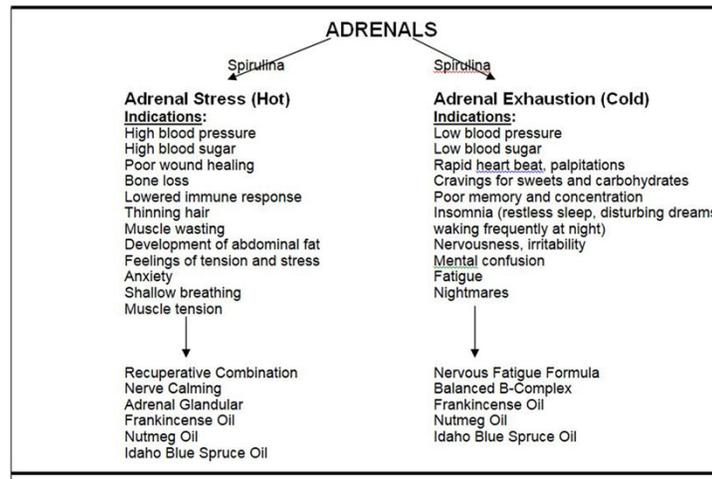
Endocrine System – Polyglandular





Body Systems

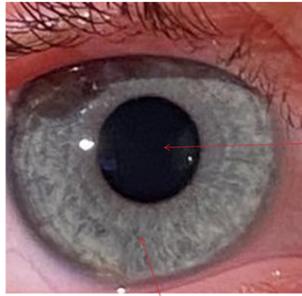
Endocrine System Flow Chart





Body Systems

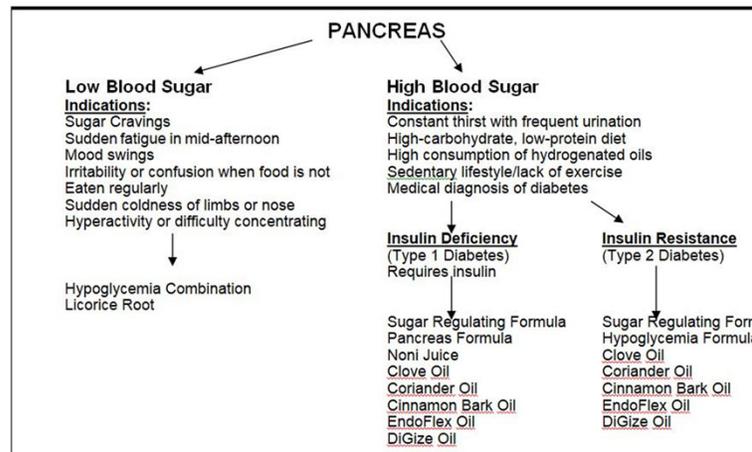
Endocrine System – Adrenal





Body Systems

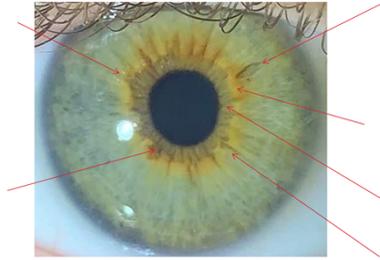
Endocrine System Flow Chart





Body Systems

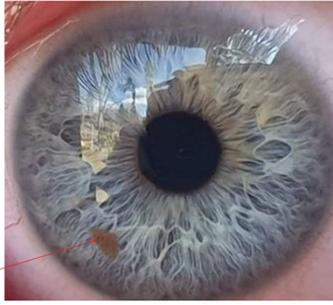
Endocrine System – Pancreas





Body Systems

Endocrine System – Polyglandular and Pancreas





Body Systems

Endocrine System Flow Chart

THYROID

Hypothyroidism (Cold)

Indications:

- Mental or physical slowing
 - Fatigue/lethargy
- Undue sensitivity to cold weather
 - Low body temperature
 - Hair loss
 - Weight gain
 - Coarse skin
- Low sex drive/infertility
 - Mild depression



Thyroid Activator
Thyroid Normalizer
7-Keto
Thyroid Support
Master Gland
Iodine Patch
Goiter use Liquid Dulse
Myrrh
EndoFlex Oil
Sage Oil
Frankincense Oil

7



Body Systems

Endocrine System – Thyroid and Breast

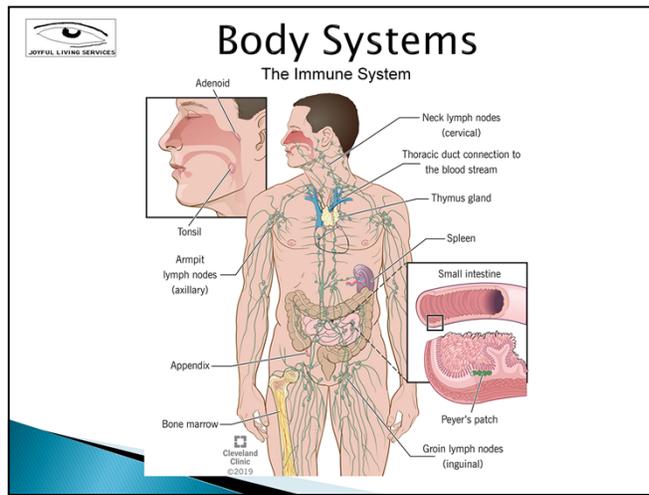




Body Systems

Endocrine System – Polyglandular and Thyroid





- The immune system is the body's defense against germs, viruses and other invaders. The thymus gland, spleen, tonsils, adenoids and lymph nodes, along with a variety of white blood cells, all protect the body.
- Common immune-system concerns include viruses, bacteria, fungus, cancer, fatigue, influenza, AIDS and stress. You can do a lot to keep your defenses strong and boost your immunity. The first step is making good dietary choices.
- Prevention is a fundamental principle of natural health. One of the best things you can do to prevent disease and disability is to support your immune system.
- The immune system consists of various body organs and processes. Key structures include the thymus gland, spleen, tonsils, adenoids and lymph nodes. White blood cells also help defend the body.
- This system is unlike other body systems in that it is not a group of physical structures (like the heart and blood vessels of the circulatory system), but a system of complex interactions involving many different organs, structures and substances. Among these are white blood cells, bone marrow, the lymphatic vessels and organs, specialized cells found in various body tissues, and specialized substances called serum factors that are present in the blood. Ideally, all of these components work together to protect the body against infection and disease.
- The thymus gland plays a vital role in defending your body. It produces a special like of white blood cell called a T-lymphocyte. This unique cell plays a profound role in creating "cell-based" immunity. Immunity on a cellular level protects against fungi, viruses, bacteria and yeast infections. Your body has approximately one trillion lymphocytes.
- The immune system helps protect us from malignancies. Tumor cells are always present in our bodies in small numbers. A healthy immune system will recognize and destroy tumor cells. When a person develops cancer, the immune function has failed to provide the body with protection. For some reason, the body does not recognize malignant cells, and they are allowed to reproduce.
- After puberty, the thymus gland begins to shrink. Because the thymus is believed to be the source of hormones involved in the maturation of T-lymphocytes (discussed later), it is crucial that we supplement our diets with nutrients that nourish and build this gland. These include vitamin C with bioflavonoids, selenium, vitamin E, beta-carotene, zinc and alpha lipoic acid. Recent clinical data support the notion that many of us become zinc-deficient, as we grow older. This may help explain why elderly people become so much more susceptible to disease. Herbs that support the thymus gland include astragalus, echinacea and pau d'arco.
- The lymphatic system, which includes the tonsils, adenoids and lymph nodes, is responsible for collecting lymph fluid and draining waste from the tissues. This fluid must be purified by white blood cells, which destroy infections, kill microorganisms and remove cellular waste. Our lymph nodes also help produce armies of antibodies, which are special cells designed to kill specific organisms. Herbs like ginseng, golden seal and echinacea help support and cleanse the lymphatic system. Regular exercise also promotes lymphatic system health.



Body Systems

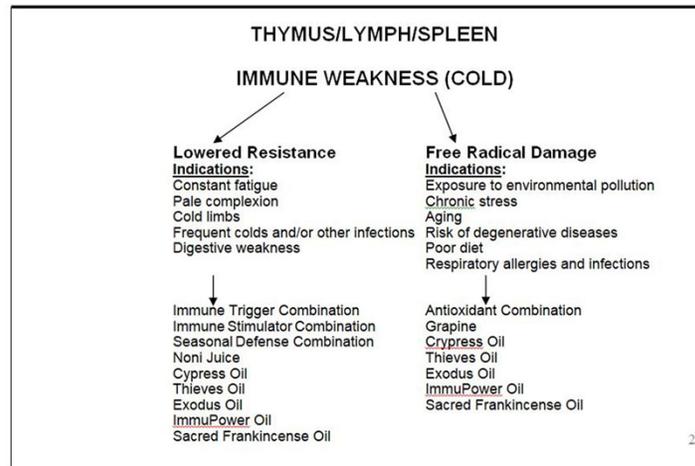
The Immune System





Body Systems

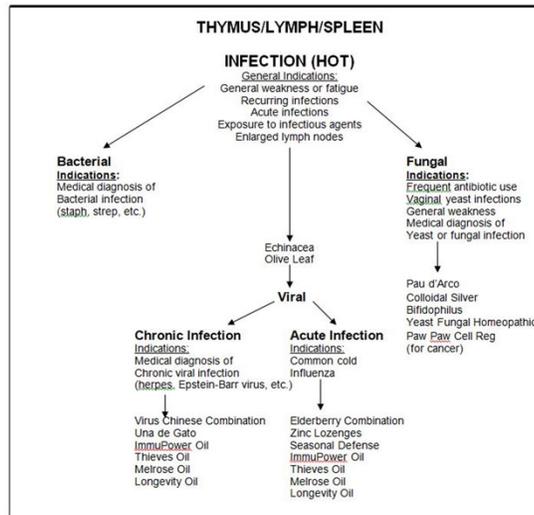
Immune System Flow Chart

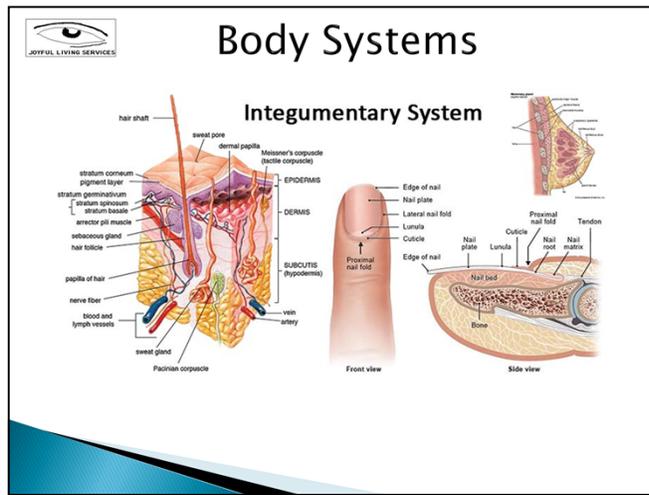




Body Systems

Immune System Flow Chart



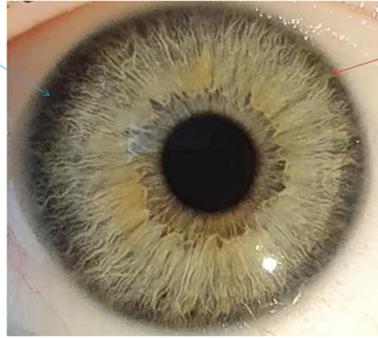


- The skin is only a few millimeters thick yet is by far the largest organ in the body. The average person's skin weighs 10 pounds and has a surface area of almost 20 square feet. Skin forms the body's outer covering and forms a barrier to protect the body from chemicals, disease, UV light, and physical damage. Hair and nails extend from the skin to reinforce the skin and protect it from environmental
- Hair is an accessory organ of the skin made of columns of tightly packed dead keratinocytes found in most regions of the body. The few hairless parts of the body include the palmar surface of the hands, plantar surface of the feet, lips, labia minora, and glans penis. Hair helps to protect the body from UV radiation by preventing sunlight from striking the skin. Hair also insulates the body by trapping warm air around the skin.
- Nails are accessory organs of the skin made of sheets of hardened keratinocytes and found on the distal ends of the fingers and toes. Fingernails and toenails reinforce and protect the end of the digits and are used for scraping and manipulating small objects. There are 3 main parts of a nail: the root, body, and free edge. The nail root is the portion of the nail found under the surface of the skin. The nail body is the visible external portion of the nail. The free edge is the distal end portion of the nail that has grown beyond the end of the finger or toe.
- Sudoriferous glands are exocrine glands found in the dermis of the skin and commonly known as sweat glands. There are 2 major types of sudoriferous glands: eccrine sweat glands and apocrine sweat glands. Eccrine sweat glands are found in almost every region of the skin and produce a secretion of water and sodium chloride. Eccrine sweat is delivered via a duct to the surface of the skin and is used to lower the body's temperature through evaporative cooling.
- Apocrine sweat glands are found in mainly in the axillary and pubic regions of the body. The ducts of apocrine sweat glands extend into the follicles of hairs so that the sweat produced by these glands exits the body along the surface of the hair shaft. Apocrine sweat glands are inactive until puberty, at which point they produce a thick, oily liquid that is consumed by bacteria living on the skin. The digestion of apocrine sweat by bacteria produces body odor.
- Sebaceous glands are exocrine glands found in the dermis of the skin that produce an oily secretion known as sebum. Sebaceous glands are found in every part of the skin except for the thick skin of the palms of the hands and soles of the feet. Sebum is produced in the sebaceous glands and carried through ducts to the surface of the skin or to hair follicles. Sebum acts to waterproof and increase the elasticity of the skin. Sebum also lubricates and protects the cuticles of hairs as they pass through the follicles to the exterior of the body.
- Ceruminous glands are special exocrine glands found only in the dermis of the ear canals. Ceruminous glands produce a waxy secretion known as cerumen to protect the ear canals and lubricate the eardrum. Cerumen protects the ears by trapping foreign material such as dust and airborne pathogens that enter the ear canal. Cerumen is made continuously and slowly pushes older cerumen outward toward the exterior of the ear canal where it falls out of the ear or is manually removed.



Body Systems

Integumentary System - Skin





Body Systems

Integumentary System Flow Chart

MUSCLES/BONES/JOINTS/HAIR, SKIN & NAILS

HAIR, SKIN & NAILS

Indications:

Split ends; hair lacks luster
Brittle fingernails

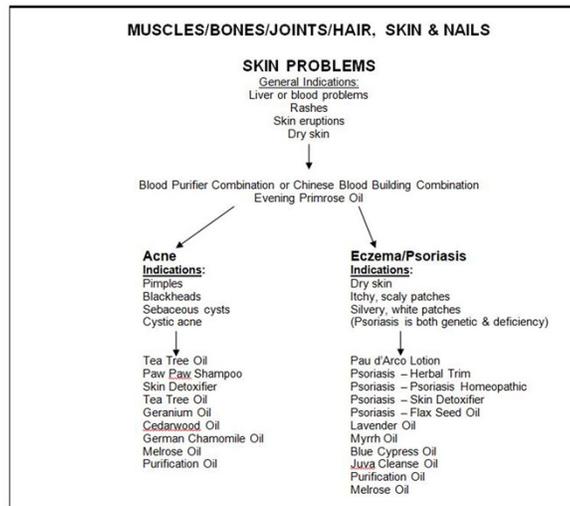


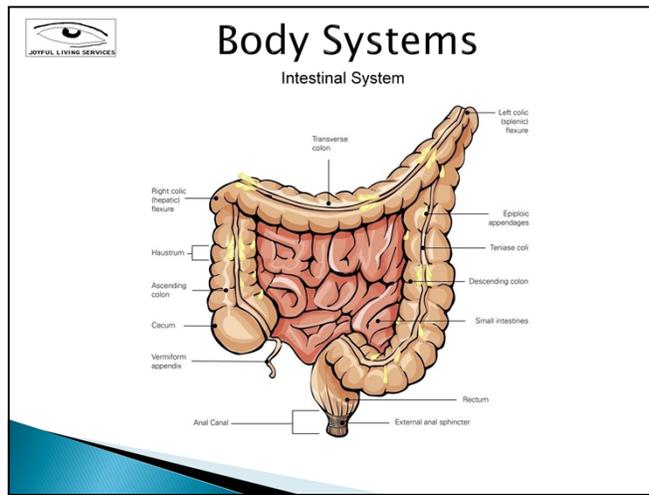
Hair, Skin & Nail Combination
Super GLA
Protein Digestive Aid – HCL
Melrose Oil
Juya Cleanse Oil
Purification Oil
Lavender Oil



Body Systems

Integumentary System Flow Chart



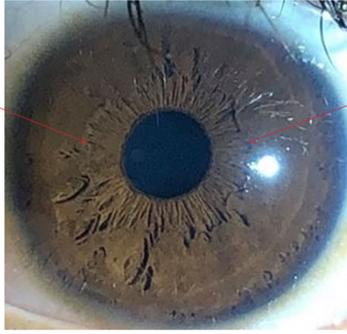


- The intestinal system eliminates solid waste products from the body and reabsorbs water. It is composed of the colon (also known as the large intestine or lower bowel) and the rectum.
- When the colon cannot function properly, an accumulation of toxins can build up in the lymph system, the bloodstream and the intestines. This can lead to a myriad of intestinal concerns, including colitis, constipation, hemorrhoids, diverticulitis, Crohn's disease and irritable bowel syndrome. Other intestinal system concerns include diarrhea and dehydration.
- The intestinal system focuses almost exclusively on the colon. The high fat, low-fiber diet common to most Americans wreaks havoc on this organ.
- The main functions of the colon are the elimination of waste and the reabsorption of water. The colon is the primary organ for eliminating cellular waste and digestive waste byproducts. A healthy, well-functioning colon is essential for good digestion and the proper absorption of nutrients.
- The colon extracts water and sends it back into the bloodstream. This is vital because the body needs a great deal of water to be able to create and secrete two gallons of digestive fluids every day.
- Sometimes food and waste matter pass through the colon more quickly than normal due to conditions like the presence of excessive bacteria, emotional stress or the use of prescription drugs. This results in diarrhea, which can cause severe dehydration of body cells. Large amount of water should be taken to offset this loss.
- Constipation, the halting of the eliminative process, plagues untold millions of Americans. This can be caused by stress, poor dietary habits (including the lack of fiber) and a sedentary lifestyle.
- The first section of the colon is called the cecum. The junction between the ileum of the small intestine and the cecum of the large intestine is the ileocecal valve. This valve prevents the back-flow of waste into the small intestine.
- The colon has three sections divided by pronounced flexures, or bends, where it makes near-right-angle changes of direction. Above the pouch of the cecum, the ascending colon rises vertically for almost 18 inches. At the top, the ascending colon bends, and the transverse colon begins. The transverse colon travels horizontally for about two feet at navel height, then turns down again. This two-foot section is the descending colon. The remaining several inches is the rectum, which carries waste out of the body.
- Just below the entrance to the ileum (the end of the small intestine), a sac-like tube dangles from the cecum. This is the appendix. The appendix is only 3-6 inches long and one-third of an inch in diameter, so it can easily become clogged with stray pieces of food or waste and get infected; this condition is known as appendicitis.



Body Systems

Intestinal System – Balanced Collarete





Body Systems

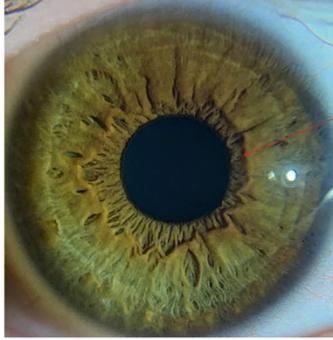
Intestinal System – Atonic Collarete





Body Systems

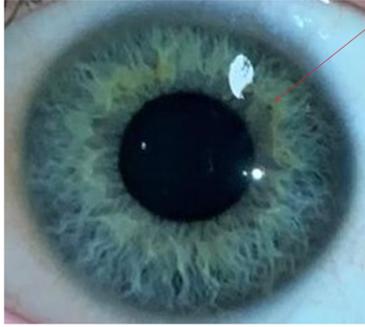
Intestinal System – Constricted Collarete





Body Systems

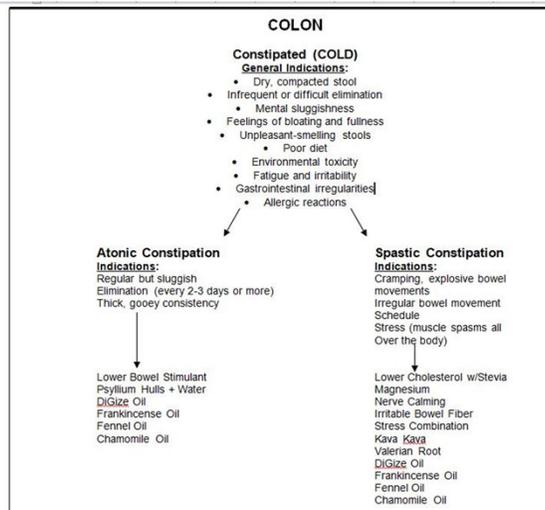
Intestinal System – Collarette Crypt





Body Systems

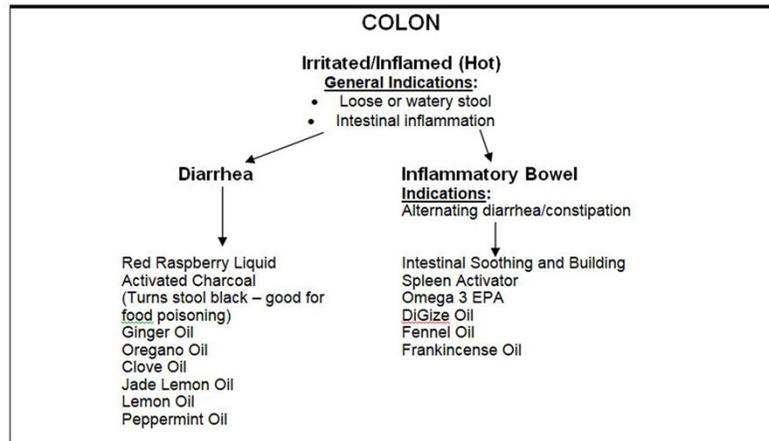
Intestinal System Flow Chart





Body Systems

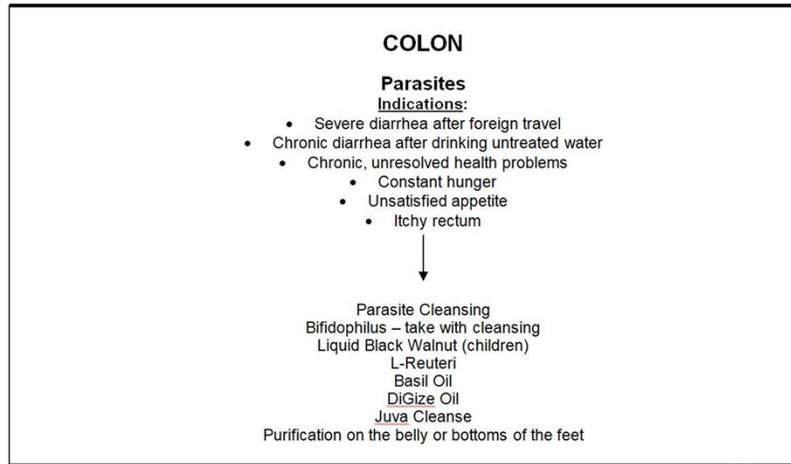
Intestinal System Flow Chart

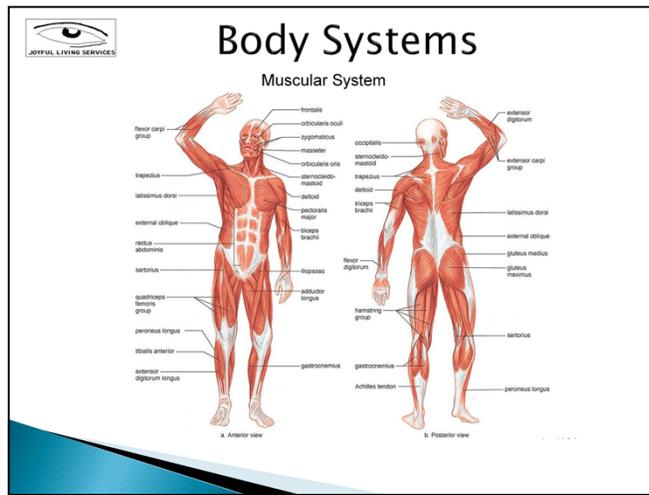




Body Systems

Intestinal System Flow Chart



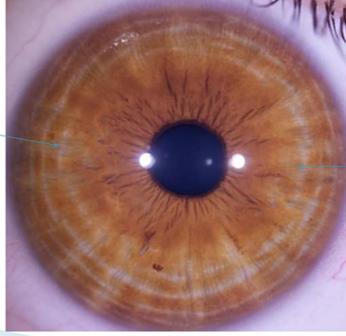


- The muscular system is responsible for the movement of the human body. Attached to the bones of the skeletal system are about 700 named muscles that make up roughly half of a person’s body weight. Each of these muscles is a discrete organ constructed of skeletal muscle tissue, blood vessels, tendons, and nerves. Muscle tissue is also found inside of the heart, digestive organs, and blood vessels. In these organs, muscles serve to move substances throughout the body.
- **Visceral Muscle** - Visceral muscle is found inside of organs like the stomach, intestines, and blood vessels. The weakest of all muscle tissues, visceral muscle makes organs contract to move substances through the organ. Because visceral muscle is controlled by the unconscious part of the brain, it is known as involuntary muscle—it cannot be directly controlled by the conscious mind. The term “smooth muscle” is often used to describe visceral muscle because it has a very smooth, uniform appearance when viewed under a microscope. This smooth appearance starkly contrasts with the banded appearance of cardiac and skeletal muscles.
- **Cardiac Muscle** - Found only in the heart, cardiac muscle is responsible for pumping blood throughout the body. Cardiac muscle tissue cannot be controlled consciously, so it is an involuntary muscle. While hormones and signals from the brain adjust the rate of contraction, cardiac muscle stimulates itself to contract. The natural pacemaker of the heart is made of cardiac muscle tissue that stimulates other cardiac muscle cells to contract. Because of its self-stimulation, cardiac muscle is considered to be autorhythmic or intrinsically controlled.
- The cells of cardiac muscle tissue are striated—that is, they appear to have light and dark stripes when viewed under a light microscope. The arrangement of protein fibers inside of the cells causes these light and dark bands. Striations indicate that a muscle cell is very strong, unlike visceral muscles.
- The cells of cardiac muscle are branched X or Y shaped cells tightly connected together by special junctions called intercalated disks. Intercalated disks are made up of fingerlike projections from two neighboring cells that interlock and provide a strong bond between the cells. The branched structure and intercalated disks allow the muscle cells to resist high blood pressures and the strain of pumping blood throughout a lifetime. These features also help to spread electrochemical signals quickly from cell to cell so that the heart can beat as a unit.
- **Skeletal Muscle** - Skeletal muscle is the only voluntary muscle tissue in the human body—it is controlled consciously. Every physical action that a person consciously performs (e.g. speaking, walking, or writing) requires skeletal muscle. The function of skeletal muscle is to contract to move parts of the body closer to the bone that the muscle is attached to. Most skeletal muscles are attached to two bones across a joint, so the muscle serves to move parts of those bones closer to each other.
- Skeletal muscle cells form when many smaller progenitor cells lump themselves together to form long, straight, multinucleated fibers. Striated just like cardiac muscle, these skeletal muscle fibers are very strong. Skeletal muscle derives its name from the fact that these muscles always connect to the skeleton in at least one place.



Body Systems

Muscular System – zone 4





Body Systems

Muscular System Flow Chart

MUSCLES/BONES/JOINTS/HAIR, SKIN & NAILS

INFLAMMATION

Joints

Indications:

Heat and/or swelling
Sensitivity to damp weather
Diagnosis of arthritis, gout or other
Inflammatory joint disease
High-protein diet



Joint Support Combination
Glucosamine – replaces cartilage
Chondroitin – moisturizes bones
(Use if walking and hearing cracking)
Noni
MSM
Coral Calcium – alkalizing – arthritis
Green drink – alkalizing – arthritis
PanAway Oil
Cool Azul Oil
Copiaba Oil
Frankincense Oil
Sacred Mountain Oil

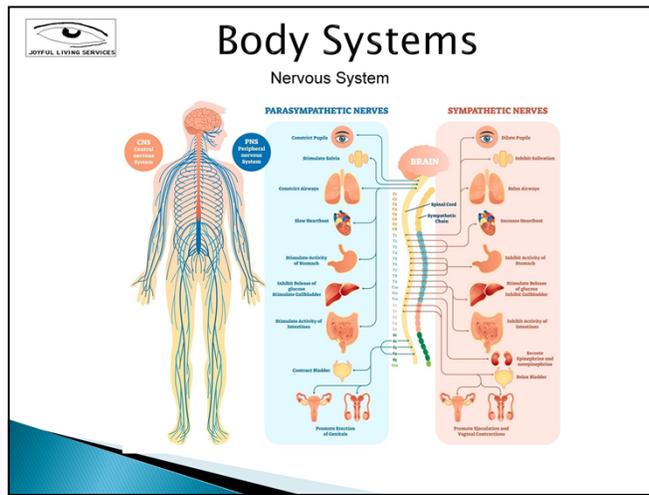
Muscles

Indications:

Heat and/or swelling
Muscle pain
Sleep disorders
Depression
Fatigue



Fibromyalgia Combination
MSM/Glucosamine Cream (put on "it is")
IGF Spray
PanAway Oil
Cool Azul Oil
Copiaba Oil
Frankincense Oil
Sacred Mountain Oil



- The nervous system is made up of groups of cells called neurons. A neuron is a cell body with a nucleus, a dendrite (which receives input) and an axon (which relays signals to other cells).
- Neurons transmit information through the body in a manner similar to the way electricity flows through a wire. A nervous impulse begins with the reversal of the concentrations of sodium and potassium both inside and outside the neuron. Sodium rushes into the cell and potassium rushes out, generating momentum that conducts an impulse down the axon and toward the dendrite of the next neuron. This transmission continues from cell to cell until the message is delivered. All this takes place at incredible speed.
- Some of the spaces between nerve cells, called junctions, are so small that the impulse can travel from one nerve to the next very quickly. These are called gap junctions. However, most neurons relay signals across larger spaces called synaptic junctions. These require chemical messengers called neurotransmitters.
- Neurotransmitters are released into a synaptic junction by one cell and bond with receptors on the membrane of the neighboring cell. After the electronic signal has been relayed, the neurotransmitters are deactivated and recycled. Some neurotransmitters include serotonin, acetylcholine, dopamine, GABA (gamma amino butyric acid) and norepinephrine (noradrenaline). Abnormal levels of neurotransmitters can cause an assortment of complications. For instance, abnormally low levels of serotonin are associated with obesity, depression. Sleep disorders anxiety and migraine headaches.
- Many neurons are surrounded by special cells that form an outer layer called the myelin sheath. The myelin is composed mostly of lipids. It insulates the neurons to speed up the conduction of impulses, as it prevents “short circuits” between adjacent neurons. Deterioration of the myelin sheath is associated with many degenerative disorders of the nervous system.
- The nervous system has two major divisions – the central nervous system (CNS) and the peripheral nervous system (PNS). The CNS is composed of the brain and spinal cord and is the body’s main signal-processing unit. The nerves of the PNS extend to other parts of the body, including internal organs, skeletal muscles and glands.
- The PNS subdivides into the somatic and autonomic pathways. Somatic-pathway responses are voluntary or conscious. For example, use of arm or leg muscles and sensory perceptions are controlled by somatic nerves. Autonomic pathways deal with involuntary actions like digestion, excretion, heartbeat and the contraction of the smooth muscles. These are all things we can’t control.
- Autonomic pathways divide again into the sympathetic and parasympathetic branches of the nervous system. These branches work independently and opposite of one another. The sympathetic nervous system, which secretes the neurotransmitter noradrenaline, initiates “fight or flight” responses when stimulated by physical, emotional or environmental stress. This is a primitive, instinct-like ability that allows a person to maximize energy in order to most effectively react to stress. It raises blood sugar, heart rate, blood pressure and metabolism, constricts blood vessels and stops less vital functions like digestion. The parasympathetic nervous system normalizes the body by balancing it to the state it was in before the stimulus occurred. The neurotransmitter acetylcholine restores non-vital functions. The reciprocating actions of the sympathetic and parasympathetic nervous systems allow the body to cope with stress without being overwhelmed by its physiological effects.
- Stress can have many negative effects on the body. In addition to the uncontrollable, physical reactions described above, stress can also deplete levels of water-soluble vitamins (C and B complex) and vitamins A and E. These vitamins are essential to the proper development and function of nervous-system tissue because they act as co-enzymes in chemical reactions and raw materials for nerve cells. Adequate vitamin and mineral intake can help provide the body with the nutrients it needs to function properly, even under stress.



Body Systems

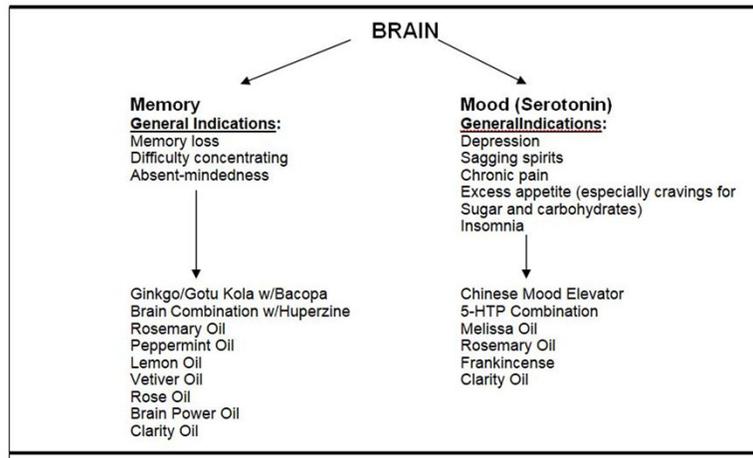
Nervous System





Body Systems

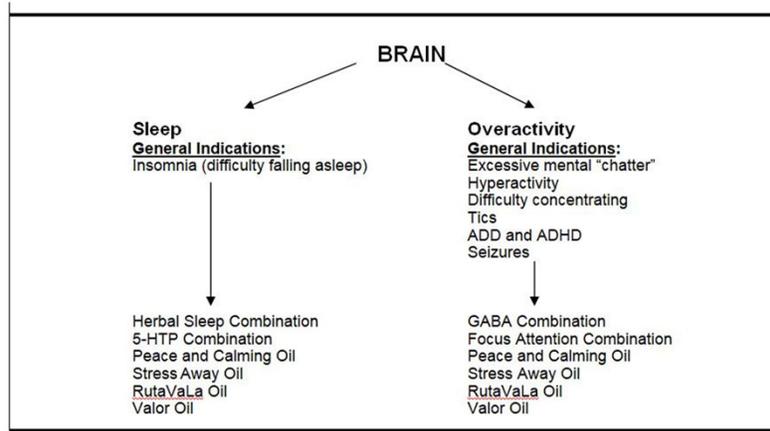
Nervous System Flow Chart





Body Systems

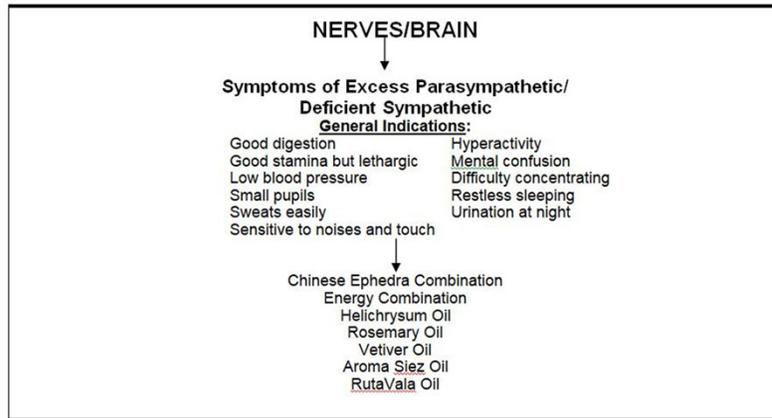
Nervous System Flow Chart





Body Systems

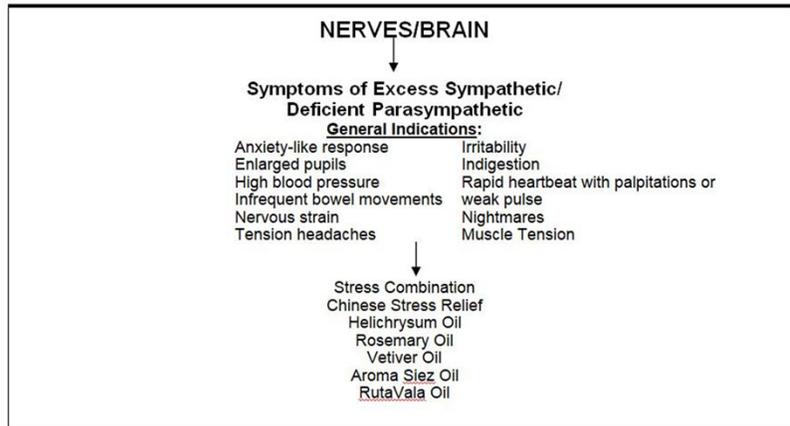
Nervous System Flow Chart

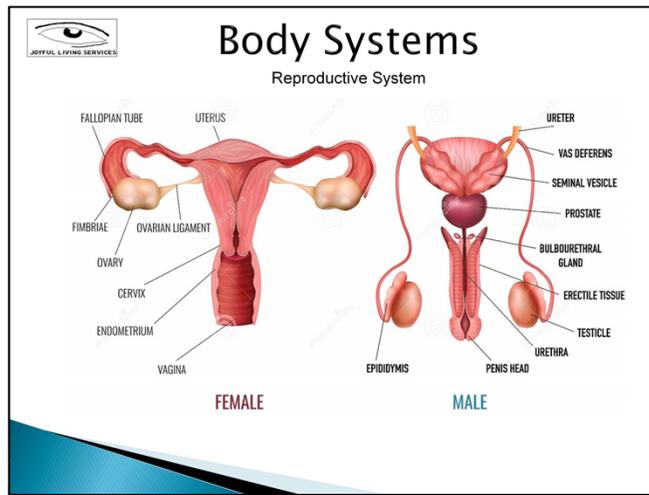




Body Systems

Nervous System Flow Chart



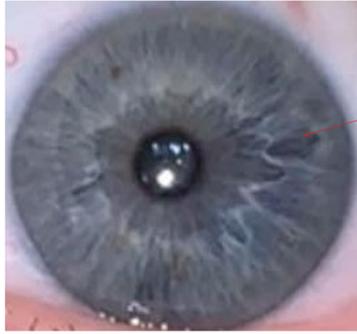


- The major function of the reproductive system is to ensure survival of the species. Other systems in the body, such as the endocrine and urinary systems, work continuously to maintain homeostasis for survival of the individual. An individual may live a long, healthy, and happy life without producing offspring, but if the species is to continue, at least some individuals must produce offspring.
- Within the context of producing offspring, the reproductive system has four functions: (1) To produce egg and sperm cells, (2) To transport and sustain these cells, (3) To nurture the developing offspring, (4) To produce hormones.
- These functions are divided between the primary and secondary, or accessory, reproductive organs. The primary reproductive organs, or gonads, consist of the ovaries and testes. These organs are responsible for producing the egg and sperm cells (gametes), and hormones. These hormones function in the maturation of the reproductive system, the development of sexual characteristics, and regulation of the normal physiology of the reproductive system. All other organs, ducts, and glands in the reproductive system are considered secondary, or accessory, reproductive organs. These structures transport and sustain the gametes and nurture the developing offspring.
- The male reproductive system like that of the female, consists of those organs whose function is to produce a new individual, i.e., to accomplish reproduction. This system consists of a pair of testes and a network of excretory ducts (epididymis, ductus deferens (vas deferens), and ejaculatory ducts), seminal vesicles, the prostate, the bulbourethral glands, and the penis.
- The organs of the female reproductive system produce and sustain the female sex cells (egg cells or ova), transport these cells to a site where they may be fertilized by sperm, provide a favorable environment for the developing fetus, move the fetus to the outside at the end of the development period, and produce the female sex hormones. The female reproductive system includes the ovaries, Fallopian tubes, uterus, vagina, accessory glands, and external genital organs.
- Functionally, the mammary glands produce milk; structurally, they are modified sweat glands. Mammary glands, which are located in the breast overlying the pectoralis major muscles, are present in both sexes, but usually are functional only in the female.
- Externally, each breast has a raised nipple, which is surrounded by a circular pigmented area called the areola. The nipples are sensitive to touch, due to the fact that they contain smooth muscle that contracts and causes them to become erect in response to stimulation.
- Internally, the adult female breast contains 15 to 20 lobes of glandular tissue that radiate around the nipple. The lobes are separated by connective tissue and adipose. The connective tissue helps support the breast. Some bands of connective tissue, called suspensory (Cooper's) ligaments, extend through the breast from the skin to the underlying muscles. The amount and distribution of the adipose tissue determines the size and shape of the breast. Each lobe consists of lobules that contain the glandular units. A lactiferous duct collects the milk from the lobules within each lobe and carries it to the nipple. Just before the nipple, the lactiferous duct enlarges to form a lactiferous sinus (ampulla), which serves as a reservoir for milk. After the sinus, the duct again narrows and each duct opens independently on the surface of the nipple.
- Mammary gland function is regulated by hormones. At puberty, increasing levels of estrogen stimulate the development of glandular tissue in the female breast. Estrogen also causes the breast to increase in size through the accumulation of adipose tissue. Progesterone stimulates the development of the duct system. During pregnancy, these hormones enhance further development of the mammary glands. Prolactin from the anterior pituitary stimulates the production of milk within the glandular tissue, and oxytocin causes the ejection of milk from the glands.



Body Systems

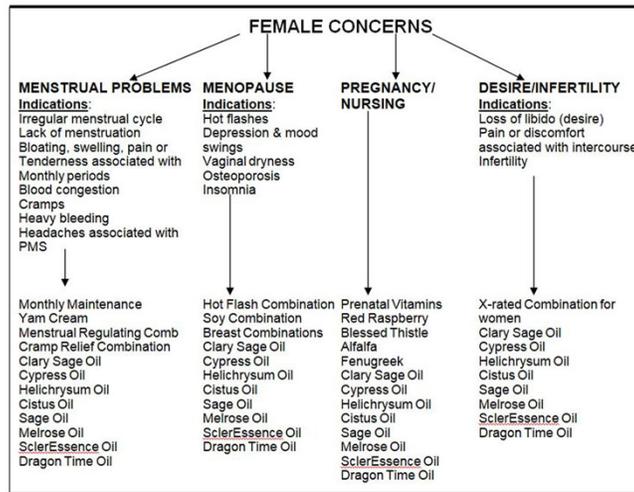
Reproductive System - Breast





Body Systems

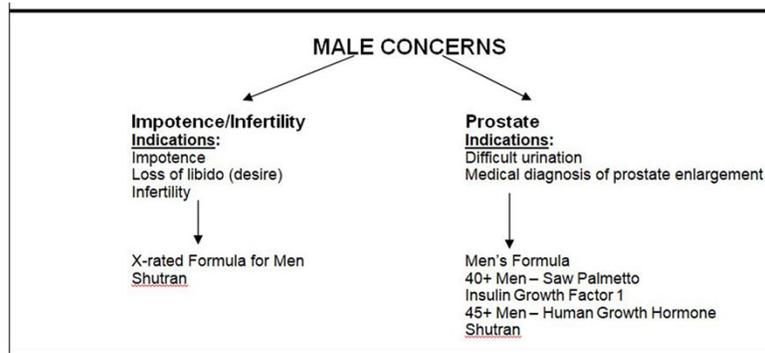
Reproductive System Flow Chart

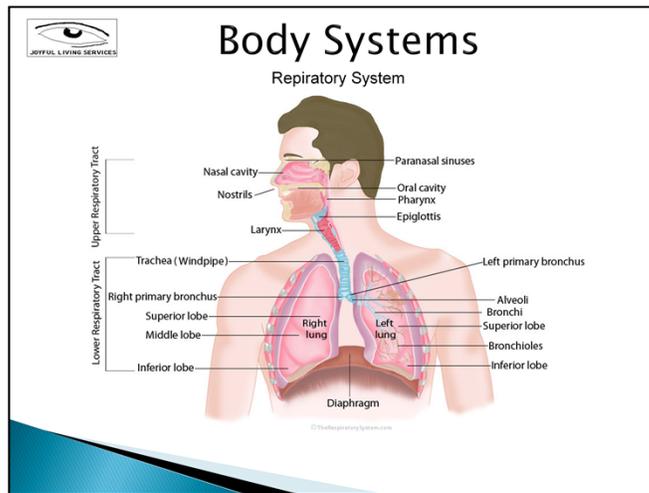




Body Systems

Reproductive System Flow Chart





- Respiration provides oxygen to the bloodstream. All body cells need oxygen to live and function properly. Without oxygen, body cells start dying within minutes.
- Common respiratory concerns include runny nose, sneezing, allergies, post-nasal drip, coughs, colds, bronchitis, sinusitis, pneumonia and asthma. Associated problems can include earaches, sore throats, swollen lymph nodes and tonsillitis. Signs of chronic respiratory weakness include wheezing, shortness of breath and emphysema.
- The respiratory system's primary function is to provide oxygen to the bloodstream. Once in the blood, oxygen travels through the circulatory system to all the cells of the body. The body cells need oxygen to create energy.
- When air enters the body through the nose or mouth, it travels down the trachea or windpipe and into the bronchi. The bronchi branch into smaller tubes called bronchioles, which lead to alveoli. Alveoli are tiny air sacs clustered around the ends of the smallest bronchioles. These air sacs are surrounded by tiny, thin-walled blood vessels called capillaries. Through these thin walls, carbon dioxide leaves the body and oxygen enters it.
- The lungs filter the air we breathe and only allow microscopic particles to actually reach the alveoli. The body also uses a mucous membrane to protect the airways and prevent dust particles and other irritants from being absorbed. Because of the lungs' ability to absorb substances into the bloodstream, some medications are administered this way. For example, many asthma sufferers use an inhaler that allows them to breathe medicine. Essential oils, when inhaled, are also absorbed into the blood via the lungs.
- Although we think of the lungs as doing all of the respiratory work, the sinuses and trachea also play critical roles in this system. The sinuses filter and humidify the air we breathe. They also regulate the temperature of incoming air. The trachea, bronchi and bronchioles are lined with cilia – tiny hairlike structures that pulsate continuously, pushing mucus and foreign particles up toward the pharynx so they can be swallowed, broken down and eliminated.
- The bronchi and bronchioles are surrounded by smooth muscle. In some people these muscle spasms make breathing very difficult. This condition is known as asthma, and it affects millions of Americans, often limiting their activities. Doctors at Tel Aviv University in Israel found that 45 percent of asthmatics who took a megadose of vitamin C (2,000 mg) before exercising were able to do so without coughing, sneezing and experiencing shortness of breath. Another 10 percent of participants also experienced benefits, though they were less significant.
- You can take steps to promote respiratory health. Practice good hygiene (wash your hands frequently), don't smoke and avoid second-hand smoke, get plenty of sleep, exercise regularly, practice deep breathing, eat a balanced diet, be wary of air pollution and reduce the amount of stress in your life.
- Many supplements also promote respiratory health. Two key herbs for this system are mullein and lobelia. Mullein, a mucilant, is very soothing to the respiratory tract. It has expectorant properties (promotes the elimination of mucus through the mouth) and helps heal inflammation of breathing passageways. Lobelia acts as an antispasmodic on smooth muscles, helping the bronchi to relax. It also has nervine and expectorant properties.

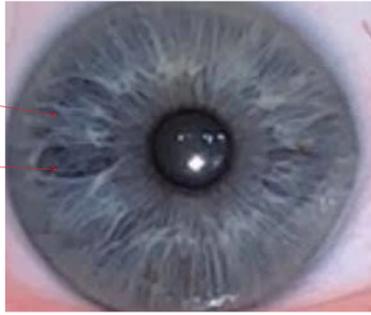


Body Systems

Respiratory System and Breast

Respiratory

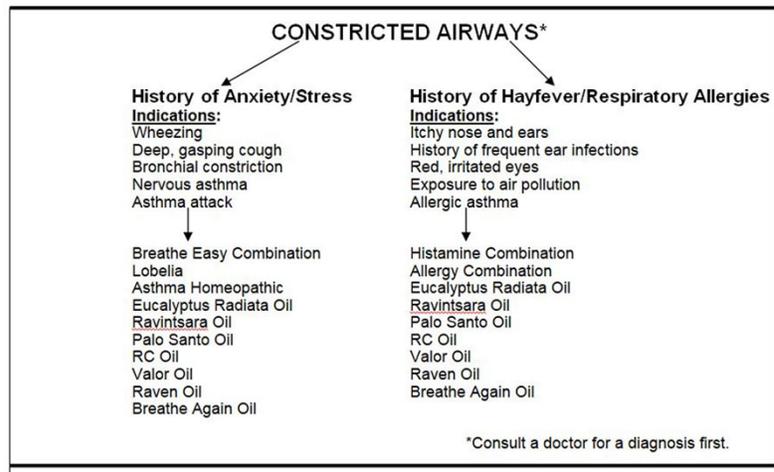
Breast





Body Systems

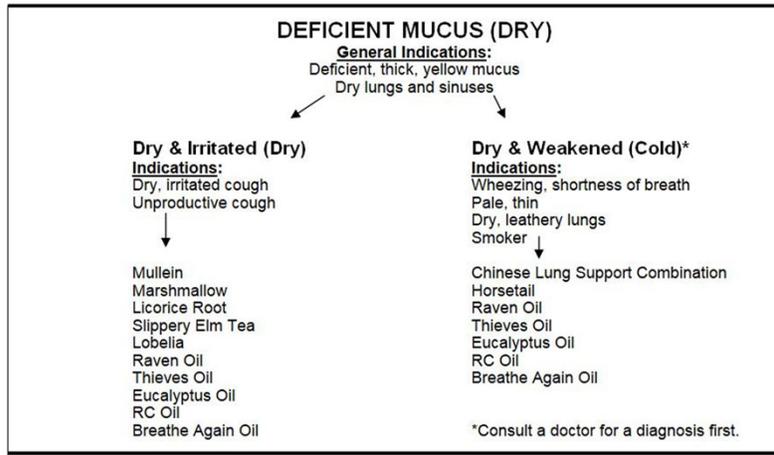
Respiratory System Flow Chart





Body Systems

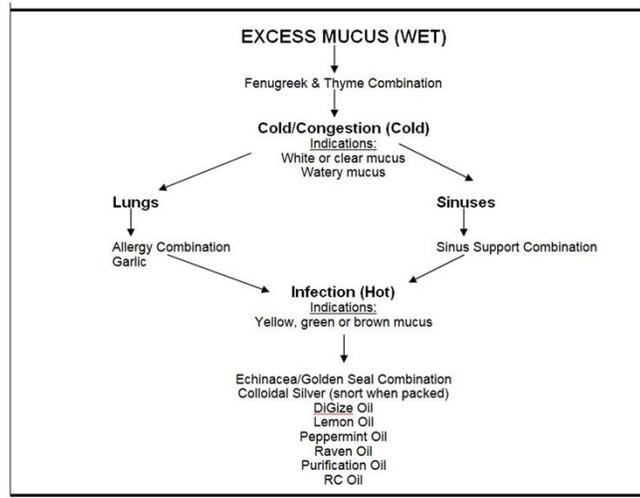
Respiratory System Flow Chart





Body Systems

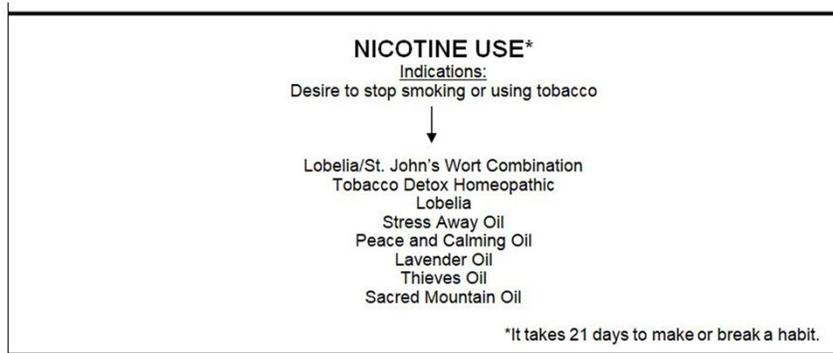
Respiratory System Flow Chart

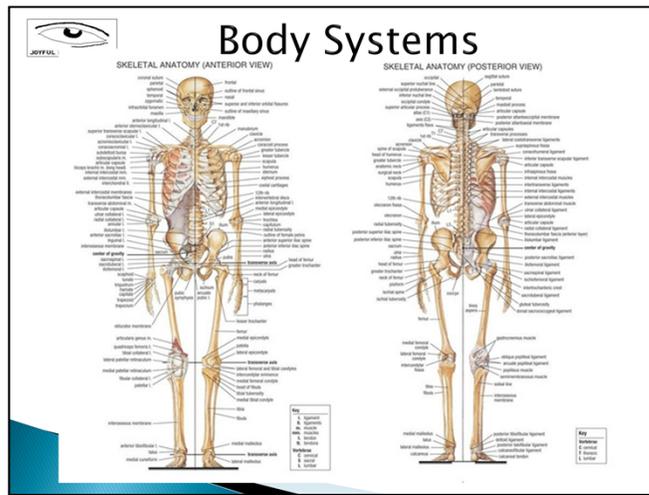




Body Systems

Respiratory System Flow Chart



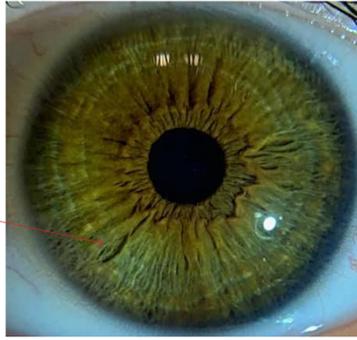


- The structural system consists of the skeleton (bones), muscles, skin, membranes and connective tissues. The bones provide a strong, stable, yet mobile, framework on which the muscles can act. The skeleton also supports and protects body organs, notably the brain and spinal cord (which are encased in the skull and spine) and the heart and lungs (which are protected by the ribs).
- Structural system problems and disorders can include infections and inflammations (arthritis, gangrene, tetanus, warts, dermatitis, cold sores, ringworm, psoriasis, acne, ulcers), muscular dystrophy, tumors and fibroids, cramps, fibromyalgia syndrome, and autoimmune disorders (lupus, arthritis).
- The skeleton plays an indispensable role in movement. In effect, it consists of a series of independently movable internal levers on which the muscles can pull to move different parts of the body. The skeleton also supports and protects body organs, as explained above. The ribs make breathing possible by supporting the chest cavity so the lungs are not compressed, and by helping in the breathing movements.
- Another function of the skeleton is the production of blood cells, which are formed in bone marrow. The skeleton also acts as a reservoir for minerals, like calcium, which can be utilized when needed by other parts of the body.
- Muscles are structures composed of bundles of specialized cells that contract and relax to create movement. Muscles move both the body and the organs within it. The brain controls the voluntary movements of the skeletal muscles. Muscle activity is affected by changes in chemical composition of the fluid surrounding the muscle cells. A decrease in potassium ions causes muscle weakness; a reduction in calcium ions causes muscle spasm.
- Membranes are layers of tissue, often very thin, that cover a body surface, line a cavity, divide a space or organ, or form the boundaries of individual cells. We have several membranes, including the meninges, peritoneum and tympanic.
- Body tissues are collections of cells specialized to perform a particular function. Connective tissues include blood, adipose tissue (fat) and various fibrous and elastic tissues (tendons, ligaments, cartilage, etc.) that hold the body together.
- Skin is the body's largest organ. It protects the internal organs from the environment. Its cells are continually being replaced, as they are lost to wear and tear. The skin consists of a thin outer layer (the epidermis) and a thicker inner layer (the dermis). Beneath the dermis is the subcutaneous tissue, which contains fat. The hair and nails are extensions of the skin and are composed mainly of keratin – the main constituent of the outermost part of the epidermis. The skin acts as a barrier, shielding internal organs from injury, bacteria and harmful sunlight rays. It also regulates body temperature through perspiration.
- You can help maintain structural health by getting adequate minerals in your diet, especially calcium, magnesium and phosphorus. These minerals, along with vitamin D, have been shown to help treat and prevent osteoporosis and osteomalacia (the softening and demineralizing of bones). Vitamin D is essential to the metabolism of calcium and phosphorus in the body.



Body Systems

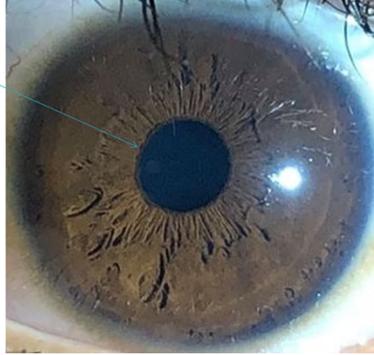
Structural System – Lumbar/Liver





Body Systems

Structural System – Pupil Flattening





Body Systems

Structural System Flow Chart

MUSCLES/BONES/JOINTS/HAIR, SKIN & NAILS

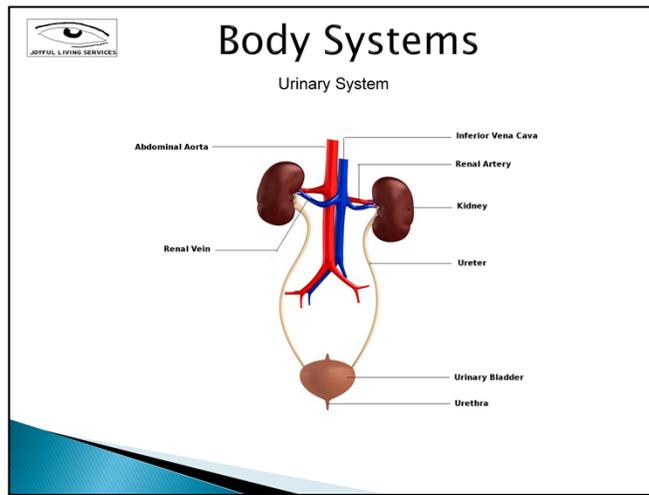
WEAK BONES

General Indications:

Brittle or easily broken bones
Bone or joint injuries
Lack of exercise
Menopause
Insufficient calcium
Vitamin D deficiency
Diet high in phosphate-containing foods such as animal products, alcohol and caffeine; smoking
Hydrochloric acid deficiency



Skeletal Combination
Herbal Calcium
Boron – Bone Hardener
Thyme Oil
Helichrysum Oil
Northern Lights Black Spruce Oil
Cool Azul Oil
Aroma Slez Oil
Deep Relief Oil



- The urinary system filters the blood and removes waste chemicals and excess water from the body. The kidneys, ureters, bladder and urethra make up the urinary system.
- A host of problems and disorders can affect this system. These include kidney stones, diabetes mellitus, hypertension, kidney cysts and tumors, infections, water retention, incontinence and back pain.
- Humans have two kidneys, each about 4-5 inches long and about 6 ounces in weight. They lie in the abdomen, one underneath the liver and the other underneath the spleen. The kidneys filter the blood and excrete waste products and excess water in the form of urine.
- Inside the kidneys, the renal arteries divide into smaller and smaller branches until they become capillaries in the glomeruli, the kidney's primary filtering units. Each kidney contains about one million glomeruli, which pass the filtered blood through long tubules. The glomeruli and the tubules make up the nephrons, the functioning units of the kidneys. The efficiency of the kidneys diminishes with age as the number of functional nephrons decreases.
- The kidneys have many functions and responsibilities. In addition to filtering the blood, they regulate water and electrolyte levels, eliminate waste products and control the body's acid-base balance. When excess water is ingested, the kidneys excrete it. When water is lost (as a result of diarrhea or sweating), the kidneys conserve it. The digestion of proteins generates ammonia, a powerful toxin that the kidneys eliminate from the body in the urine. When blood and body fluids become too acidic or too alkaline, the kidneys alter the urine acidity to restore balance.
- The kidneys also produce or release several hormones. These include erythropietin (stimulates the production of red blood cells), renin (increases the reabsorption of sodium), angiotensin (stimulates aldosterone production and increases sodium reabsorption) and aldosterone (affects salt and water balance).
- Urine travels from the kidneys through ureters (tubes) and into the bladder. Outflow is controlled by valves that prevent urine from flowing back up the ureters.
- The bladder serves as a temporary storage tank for urine. It has flexible walls, allowing it to expand as it fills. As the bladder reaches capacity, the person senses the need to urinate. When the bladder empties, its walls contract, forcing the urine out.
- The urethra is a single tube that carries urine from the bladder out of the body through the genitals. The urethra in males is about 10 inches long; while in females it is only about an inch long. Consequently, women are much more susceptible to urinary tract infections than men.



Body Systems

Urinary System – Kidney





Body Systems

Urinary System Flow Chart

KIDNEYS/BLADDER

IRRITATED/INFLAMED (HOT)*

General Indications:

Scant, dark urine
Burning urination
Hot feeling over kidneys
Puffiness/darkness under eyes
Urination produces standing foam
General symptoms of heat



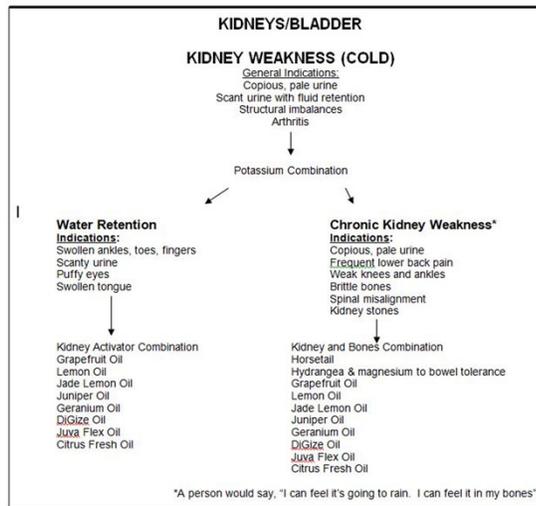
Urinary Combination
Marshmallow
Jade Lemon Oil
Helichrysum Oil
Juniper Oil
Orange Oil
Citrus Fresh Oil
Frankincense Oil

*Consult a doctor for a diagnosis first.



Body Systems

Urinary System Flow Chart





Body Systems

Urinary System Flow Chart

KIDNEYS/BLADDER

URINARY INFECTION*

Indications:

Diagnosis of urinary infection
Prevention of urinary infection



Cranberry & Buchu Combination
Echinacea & Golden Seal Combination
Grapefruit Oil
Lemon Oil
Jade Lemon Oils
Juniper Oil
Geranium Oil
DiGize Oil
Juva Flex Oil
Citrus Fresh Oil

*Consult a doctor for a diagnosis first.



Body Systems

Herbs that should not be used with Medications

Anticoagulants

Warfarin (Coumadin)

Alfalfa
Chinchona Bark
Clove Oil
Gihkgo
Garlic
Ginger
Ginseng
Feverfew

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If you are on these medications be cautious about possible interactions with these herbs

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Feverfew



Body Systems

Herbs that should not be used with Medications

Antiplatelet Drugs

Aspirin
NSAIDs
Ticlopidine (Ticlid)
Clopidogrel (Plavix)

Alfalfa
Chinchona Bark
Clove Oil
Ginkgo
Garlic
Ginger
Ginseng
Feverfew

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Clopidogrel (Plavix)

Alfalfa
Chinchona Bark
Clove Oil
Ginkgo
Garlic
Ginger
Ginseng
Feverfew



Body Systems

Herbs that should not be used with Medications

CNS Stimulants

Decongestants	Guarana
Methylphenidate (Ritalin)	Kola
Dextroamphetamine (Dexedrine)	Ma Huang
Beta2 Agonists	St. John's Wort
Caffeine/Theophylline	Yohimbe

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Body Systems

Herbs that should not be used with Medications

CNS Depressants

Alcohol	Hawthorn
Benzodiazepines	Kava-Kava
Opioids	Skullcap
Antihistamines	Valerian

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Body Systems

Herbs that should not be used with Medications

Antidepressants

Tricyclics

MAO Inhibitors

SSRIs

Ginseng

Ma Huang

Passion Flower

St. John's Wort

Yohimbe

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