

APPROACHES TO DETOXIFICATION

The expression "everything old is new again" from a popular song can be applied to many things, including detoxification. The idea of detoxification, cleansing, and balancing is new to many people today, but it is actually a very old concept. When you consider that most ancient treatments were really detoxification and cleansing procedures, it becomes obvious that detoxification has been practiced for a very long time. In addition, the first theories of pathology (disease) revolved around the imbalance of various components in the body.

Our detoxification needs and the reasons for them are considerably changed from those of ancient people. Medical treatment that was not available to them is common place to us, but we have many more and different exposures to toxins in our lives. At the same time, we have many more detoxification techniques to help us. However, we have lost the realization of the necessity for detoxification and balancing.

Part I examines evolving detoxification needs and principles. A historical overview looks at the "old" methods and applications of detoxification and cleansing. A contemporary discussion clarifies the "new" ways and how they may apply to you. A broader understanding of detoxification will enable you to identify and understand your needs. You will also learn the various types of professional help available to you.

Detoxification Demystified

In our society today, the majority of disease is blamed on stress, poor diet, genetics, physical and chemical agents, biological organisms, degeneration, inflammation, autoimmunity, lack of exercise, and abnormal growths. While these factors do indeed cause disease, there is an underlying factor that contributes to all health problems. Toxicity is the common component. Exposure to toxins and subsequent toxic accumulation cause untold health problems, both immediate and long term.

Despite our exposures to toxins, however, it is possible to enjoy good health. We do not have to live in fear, nor do we have to be obsessed by "our poisonous world" or to succumb to "germaphobia." Most people do not have to create or escape to a remote, sterile environment. By using simple treatments we can improve our current state of health. Detoxification techniques and balancing methods make it possible for us to rebuild our bodies and immune systems. Common sense protective measures allow us to maintain our health, resulting in longer lives, with a significantly lower risk of degenerative diseases and other illnesses.

What Is a Toxin?

A toxin is often defined as a poisonous substance produced by plants, some animals, and disease-causing bacteria. Another, but rather narrow, definition for a toxin is a xenobiotic, which means a foreign chemical not produced by

the human body. Dr. Elson Haas of the Preventive Medical Center of Marin in San Rafael, California, defines a toxin more broadly as "any substance that creates irritating and/or harmful effects in the body, undermining our health or stressing our biochemical or organ functions."

In this book, the term toxin will refer to anything that can be harmful or hazardous to the body, or that affects the balance of the body.

How Are We Exposed to Toxins?

Since the beginning of human history, people have been exposed to toxins that have affected their health. Over many thousands of years, our bodies have evolved to tolerate most naturally occurring substances. However, the "Chemical Revolution" that has occurred since World War II and ever increasing industrialization in all parts of the world have multiplied our exposures to harmful substances to incalculable levels.

Our bodies have been exposed to over two million new synthetic substances with no time to adapt. Chemical exposures for most people do not occur from a toxic wastes pill or from mass pesticide spraying. They come from small scale exposures that occur day after day, contributing to a build up of chemicals in our bodies. Because our bodies have had no previous experience with these chemicals, they have no efficient mechanism to metabolize or eliminate them.

Today, the health of people is affected adversely on a daily basis. While industry and science have made incredible progress, we have paid a high price for it. Our air is no longer clean; the soil is contaminated; our water supply contains high levels of toxic chemicals and micro organisms; the purity of our food cannot be guaranteed, and its quality is dangerously low.

We are all exposed to toxins as we go through our daily schedules-even by something as simple as taking a shower. Performing our daily toiletries, such as putting on make up or shaving, exposes us to chemicals unless we have selected these products with care. Going to the beauty salon or barber shop can mean a massive exposure. The grocery store provides a wide variety of exposures, including laundry and cleaning products; pesticides, both from produce and treatment of the store premises; and personal care products. Shopping in malls and large discount stores results in formaldehyde exposures.

Even going to work or school can subject our bodies to toxins. Regardless of their occupation, all people are exposed to toxins. Mechanics who generally work with no skin protection are exposed to gasoline, greases, oils, and solvents. Numerous building materials cause toxic exposures for contractors, carpenters, and house painters. Office workers are exposed to chemicals emitted by computers, copy machines, paper, correction fluid, and the personal care products of their co-workers.

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Like office workers, teachers are exposed to office supplies and others' personal care products, but may also be subjected to other toxins. Science teachers use many toxic chemicals in the laboratory, and shop, auto mechanics, and industrial arts teachers work with a variety of toxic materials. Medical supplies, laundry and cleaning products, and pesticides can adversely affect the health of people involved in the health care field.

Typical Daily Exposures for a Female Office Worker



Morning shower: chlorine and other contaminants in water; chemicals in soap, shampoo, and hair conditioner.

Clothes: fabric softener and dry-cleaning chemicals.

Toiletries: deodorant, makeup, hair spray, perfume.

Eating meals: various chemical and biological contaminants.

Traveling to and from work: exhaust fumes from vehicles, air pollution

Workplace: cleaning supplies, office furnishings, outgassing from building materials, indoor air pollution.

Work activities: computers, copiers, machines, office supplies, personal care products of co workers.

Shopping: formaldehyde in stores, pesticides on produce, chemicals from cleaning supplies used and sold in store.

Drinking and cooking with water: various chemical and biological contaminants.

General exposures: tobacco smoke; animal hair and danders at home or on the clothes of co workers; dust and dust mites; mold in bathrooms and kitchens; plant pollens and terpenes.

Homemakers are exposed to cleaning and laundry products, the family's personal care products, pesticides, dust, and mold. Children are subjected to numerous exposures, at home, at school, and in their recreational activities.



EXTERNAL TOXINS

Our exposures to toxins are classified as external and internal. External toxins are those to which we are exposed in our daily lives. Sources of external toxins include foods, water, air, plants, microorganisms, solvents, pesticides, herbicides, agricultural and industrial chemicals, toxic metals, noise, weather, temperature, altitude, and radiation. The exposures may be from serious contamination, such as industrial pollution, or from everyday toxins, such as cleaning supplies, perfume, or cigarette smoke.

Any of these exposures can cause a variety of symptoms in the sensitive person. Symptoms can include headaches, muscle pain, fatigue, mental confusion, emotional upset, poor coordination, skin rashes, neurological problems, and vision disturbances. Toxic chemicals have been associated with decreased immune function, autoimmune disease, enzyme dysfunction, hormonal imbalance, psychological abnormalities, nutritional deficiencies, and cancer.

INTERNAL TOXINS

Internal toxins are those which are stored or produced in our bodies. Our bodies act like sponges, absorbing the chemicals to which we are exposed. Water-soluble chemicals are absorbed and then excreted. However, fat-soluble chemicals accumulate in our fat cells and cell membranes, becoming internal toxins. When the body is under stress, it releases these chemicals from the fat to circulate in the blood stream. Later, these chemicals will return to the fat cells and cell membranes, to be released another time. The release and return cycle of these chemicals continues indefinitely unless we help our bodies rid themselves of toxins.

Internal toxins can include normal metabolic products. The improper formation or metabolism of normal body chemicals, such as hormones and neurotransmitters, can cause a harmful imbalance. Internal toxins also include substances that our bodies create in response to various conditions, and

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which become toxic in excess amounts. For example, injury, anesthesia, and pollution cause the body to produce free radicals that are toxic to all tissues. Exercise can cause an excess of lactic acid in the muscles, resulting in stiffness and pain in people who cannot properly process it.

Stress, emotional trauma, and cumulative life experiences can also become internal toxins. People who are experiencing emotional or spiritual challenges will benefit from special detoxification methods.

Symptoms caused by internal toxins include headaches, fatigue, memory loss, mental confusion, "flu like" symptoms, mucous membrane irritation, skin problems, iritis (inflammation of the iris), and musculo-skeletal pains. Internal toxins can also cause gastrointestinal symptoms such as nausea, vomiting, and diarrhea.



What Is Detoxification?

The term "detoxification" means to diminish or remove the toxic quality of a compound, and the body contains mechanisms that do just that. Toxic compounds are changed through chemical reactions into less toxic compounds that can be excreted from the body.

The term "depuration"-which means to cleanse or purify-may be more accurate for describing the methods we use to cleanse the body. In this book, we use the term detoxification for all cleansing processes discussed because it is more commonly used, both by the lay person and in the medical world. The terms cleansing, balancing, and detoxification are often used interchangeably. Balancing, which means to achieve homeostasis or equilibrium in the body, enables detoxification; detoxification cleanses; cleansing leads to balance. This interaction in the body helps to restore and maintain health.

Who Needs to Detoxify?

Our bodies detoxify naturally every day, which allows some people to stay balanced. For many others, a slow detoxification system and a multitude of exposures cause their bodies to gradually become overloaded. The detoxification mechanisms of the body become unable to completely cleanse the tissues and the organs, and the body is unable to maintain balance. In

these cases, detoxification procedures will help the body to cleanse and balance itself, removing the cause of disease before illness manifests.

Almost everyone would benefit from some detoxification measures, although some people are affected more seriously by toxic exposures. Biochemical individuality and genetic differences partially determine the effects of toxins. In 1987, medical experts participating in a workshop by the Board on Environmental Studies and Toxicology of the National Academy of Sciences estimated that approximately 15 percent of the U.S. population is sensitive to chemicals found in common household products.

In 1993, studies by Dr. Iris Bell of the University of Arizona on healthy college students and adults aged 26 to 29 demonstrated that 15 to 17 percent felt ill after exposure to chemicals contained in pesticides, auto exhaust, paint, new carpet, and perfume. Such sensitive people are often called human canaries. Their symptoms signal the presence of toxic chemicals in the environment, just as the death of canaries formerly used in mines signaled the presence of deadly gases.

People who are burdened by a toxic overload will demonstrate numerous symptoms, however, many people are not aware that their symptoms may be a warning sign from their body. Signals that you may need to undergo detoxification include chronic respiratory problems, asthma, or sinus problems; abnormal body odor, bad breath, or coated tongue; frequent unexplained headaches, back or joint pain, or arthritis; environmental sensitivities, food allergies, or multiple allergies; poor memory, mental confusion, insomnia, depression, irritability, or chronic fatigue; brittle nails and hair, psoriasis, or adult acne; and being underweight or over weight.

Even if we lived in a pollution-free environment, ate organic foods from soils that had no pesticide residue, drank pure water, and breathed clean air, many people would still need detoxification from internal toxins, or metabolic products. People who have minor health problems often carry a toxic load in their bodies. Without proper cleansing and balancing, toxins stored in the body will continue to cause health problems and can lead to degenerative diseases later in life.

The Rain-Barrel Effect

People are subjected to a wide range of physical, emotional, and environmental stresses that contribute to their toxic burden. The body burden can be viewed as "rain," which gradually fills the "rain barrel" of our bodies. We can adjust to a few stressors, but as the rain barrel level rises, our metabolism loses its adaptability and we begin to experience toxic overload. Our detoxification mechanisms no longer function adequately and the body cannot maintain its balance. We develop symptoms because our toxin levels are too high. Eventually, the body cannot cope with its toxic burden and our rain barrel overflows, resulting in disease.

If we periodically empty our rain barrel **with detoxification** procedures, we can withstand the stresses of moderate exposures. However, if our rain barrel continues to fill, additional stressors will cause it to overflow, with resulting symptoms. This is why some exposures can, cause us distressing symptoms, while others do not. Our reaction depends in part on how full our rain barrel is at the time of the stress.

It's a Question of Balance

Early civilizations looked on disease as a matter of imbalance or disequilibrium in the body. Today, this philosophical approach is still valid; health can be viewed as a question of balance. A healthy body is a remarkable instrument, maintaining harmony among many elements in order to maintain health.

To have good health, we must be balanced:

- *Allergically:* Allergic reactions imbalance the body by causing an increase in antibodies, an activation of immune system cells, and tissue inflammation as the body releases chemicals in an attempt to heal itself.
- *Biochemically:* Life is possible because hundreds of biochemical reactions take place in our bodies each second. Acid-alkaline balance in the body must stay within an optimal range for the detoxification pathways to function properly.
- *Electrically:* An electrical imbalance in the body causes sleep problems, acute sensitivity to weather changes, and symptoms when exposed to electrical equipment or appliances.
- *Emotionally:* Emotional health depends on balance. Love must be given and received. Anger, grief, and anxiety must be expressed and relieved.
- *Energetically:* The breakdown of organic molecules releases energy that is used by cells. An imbalance in this energy makes it impossible for the body to perform its work and maintain body temperature.
- *Environmentally:* A safe home and work place that has minimal environmental stresses and toxins is necessary to maintain health.
- *Enzymatically:* Enzymes are essential for biochemical reactions. A deficiency or excess of any enzyme affects the efficiency, speed, and balance of these reactions. Detoxification reactions in the body are enzyme controlled.
- *Hormonally:* Hormones play a major role in metabolism, circulation, water and electrolyte balance, reproduction, and stress. An imbalance can greatly reduce or even stop these processes in the body.

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- *Magnetically:* Our brains produce a steady magnetic field, and we project a magnetic field into the space around our bodies. An imbalance affects our biological cycles, such as the sleep cycle.
- *Microbiologically:* Our bodies contain normal microbiological flora that aid in body functions, such as digestion. A deficiency or an overgrowth of these organisms, or an infection by pathogenic organisms, can cause imbalance and illness.
- *Nutritionally:* The body must have a certain balanced amount of nutrients for proper functioning, repair, and good health. A continued deficiency of any vitamin, mineral, essential fatty acid, or amino acid can lead to serious health problems.
- *Psychologically:* Psychological health depends on the proper balance between emotions and the mind. An imbalance of any of the other health factors can affect psychological health.
- *Spiritually:* Spiritual balance is necessary for health. The sense of our higher self must be nurtured by prayer, worship, or meditation, depending upon a person's beliefs. Neglecting this aspect can cause a serious imbalance, resulting in illness.
- *Structurally:* The skeleton must be aligned properly to keep the body healthy and balanced. In addition, all of the cells of the body must be structurally correct and in balance.

The human body is in a constant process of biological change, subject to both internal and external stimuli. It may help to picture a well-balanced mobile formed from all of the above elements. The slightest touch on one part of the mobile causes all of the remaining elements to move. They re-establish balance by conforming to a different but stable position. Larger changes to one part of the mobile cause more active movement of the other elements and more time is needed to achieve a balance. Some changes to our balance occur rapidly, in seconds or minutes, while others may take days or years to occur.

If the tension created by an imbalance remains, the healing process is impeded. When our functions become rigid, unadaptive, and unable to change, disease usually results. Unraveling the imbalance and finding the causative factors can be a difficult and slow process.

Benefits of Detoxification

The benefits of detoxification are many, and can improve every aspect of your health. As your body detoxifies, you can expect digestion to improve, sinus congestion to clear, blood pressure to normalize, mental clarity and memory to improve, and emotional and hormonal fluctuations to stabilize. Once your body achieves balance, your energy level will rise.

With the removal of its toxic burden, the body's immune system will be strengthened, enabling it to cope more effectively with common illnesses. Chronic health problems can be expected to improve or disappear entirely.

In addition to helping restore the body and mind to full health, detoxification increases the effectiveness of any subsequent healing treatment. Over the long term, people who maintain the balance of their body can expect to live longer in better health, to experience fewer degenerative diseases such as diabetes, arthritis, and cancer, and to recover from illness and injury more quickly.

The Way to Health

There are many ways of detoxification but, for complete health, the whole person must be addressed: body, mind, emotions, and spirit. Healing is a comprehensive process of cleansing and re-balancing. People with a low toxic burden will need only a few detoxification methods, and their health will be restored quickly. Those with more serious health problems will have to follow a more complete detoxification program, and their recovery will take longer. If you have serious health problems, consult a qualified practitioner to help you detoxify. Choose a person who is proficient in more than one method of detoxification, who can help you cleanse, re-balance, and rebuild your body.

Once you have taken steps to cleanse and balance your body, you will want to maintain your new level of wellness; thus, methods of prevention are also important. Preventive techniques help to ensure continued good health. We are the guardians of our own health - it is our most precious gift. Without it, our adaptability declines, our quality of life suffers, and our enjoyment of life is mediocre. Cleansing and balancing the body to restore health becomes a learning experience, even an adventure, when we accept the challenge to pursue the best health possible and therefore the highest quality of life.

Historical Approaches

Humans have always interacted extensively with their physical world. The relationship of ancient peoples with their earth was a clean and nurturing one. It provided them with air to breathe, water to drink, food for nourishment, materials for shelter, substances for maintaining their well-being, and beauty for their enjoyment. Except in extreme circumstances, the earth was not toxic, and they were not damaged by their world. Unfortunately, these people sometimes damaged their world. They over hunted and stripped the land of its vegetation, cutting down trees for shelter and fire wood. When the land was depleted and would no longer support them, however, they were able to move to another area.

As civilizations developed and populations increased, people began to congregate in cities. The problem of pollution began in these ancient cities. Garbage was thrown into city streets, and drainage water and sewage ran down the middle of the streets. Drinking water became contaminated. People contracted diseases from the unsanitary conditions. Indoor fires and poor ventilation in the small dwellings of the masses fouled the air in many

homes. Houses were shared with domestic animals that ate the scraps thrown on the floor. Rodents were rampant, spreading infectious diseases.

Because early humans often did not understand the physical origin of their illnesses, they developed the philosophy that disease was a spiritual matter caused by supernatural forces. For many centuries, medicine was a mixture of practical treatments, magic, superstition, and religion. Medicine men and women were the first physicians.

The ancient Greeks separated medicine from religion and formulated the earliest principles of scientific medicine. By the end of the sixth century they had developed the doctrine of the humors, which formed the basis of ancient medical pathology. For centuries, it was believed that an equilibrium between the four humors-blood, phlegm, yellow bile, and black bile-must be achieved to maintain health.

Early medical treatment of illness sought to re-establish humoral harmony through diet, internal medicine, purging, vomiting, bleeding, cupping, and other techniques. All of these were early cleansing and balancing methods.

Cleansing and Balancing Methods

As time went by, it might be expected that each culture would develop its own unique program of medical treatment. This was not the case. The recorded history of all cultures and countries shows almost identical techniques, with some local variations. Many of these treatments evolved concurrently.

BLOODLETTING

Bloodletting was perhaps the favorite of the ancient treatments, but it was not used on the very young or old. The purpose of blood letting was to cleanse and balance the humors by removing "bad blood." Bleeding was used as a cleansing technique in the case of abscesses; swelling of the spleen; fever; diseases of the mouth, eye, and head; headaches; and gynecological disorders. In the case of hemorrhage, whether from a ruptured blood vessel, wound, or childbirth, bleeding was used as a "balancing" treatment.

The most common method of bleeding was to open a vein to divert the blood from the problem area or to use fresh water leeches, a milder method of bloodletting. At first, ancient physicians performed all of the bloodletting. When the university schools of medicine were organized around 1000 A.D., bloodletting became the task of the barber surgeons. Both bloodletting and surgery were considered beneath the dignity of the university-trained physicians, and surgeons and barber-surgeons were below them in status. Below them were the apothecaries and bathhouse keepers who frequently rented the leeches to their clients.

Cupping was another favorite blood letting method. A small piece of hemp (tow) was burned in a cup. As soon as it had burned out, the cup was placed over a cut on lightly greased skin. Suction from the cup caused it to fill with

blood. If the skin had not been cut, the cup was left in place until it fell off, producing a blood blister. A cupping glass over the stomach was considered to be an infallible cure for seasickness.

Bloodletting began centuries before the birth of Christ and remained popular into the 19th century. Every civilization in the world has practiced bleeding. It is still practiced today, even in North America, but on a very reduced scale, and for more practical reasons. Leeches are valuable for removing blood from bruises and black eyes, and for removing the congestion from around a reattached amputated limb.

COUNTER-IRRITATION

Another method of balancing the humors by drainage was to cause a chronic inflammatory reaction in the form of a running sore. This sore could be maintained for long periods of time, and the humors could be continuously released from the body. For treatment of asthma and paralysis, counter irritation was as popular as bloodletting. The blister was the simplest method of counter irritation and was commonly produced by applying a poultice of a cantheride (blistering agent). The poultice was left in place until a blister of the appropriate size was formed.

Counter-irritation was sometimes produced by direct application of a cautery, a hot instrument manufactured in a variety of shapes. Different numbers of blisters were called for to treat different diseases, and the design in which these blisters were placed on the skin was thought to be of great importance. In addition to the use of the solid cautery, boiling liquids such as honey, oil, syrup, or wax were used for cauterization. The physician applied the cautery until a sizzling noise, noxious smell, and shriveling of the skin were obtained.

Cauterization is used on a limited basis today to treat nosebleeds. However, a chemical or electric cautery is used to cauterize the skin and vessels in the nose rather than a hot instrument.

ENEMAS

Enemas have been used without exception by all cultures. Not only were enemas employed as a cleansing procedure, but also as a standard beginning treatment for almost every illness, injury, or health problem, including diarrhea. The Egyptians and Greeks routinely gave enemas to treat wounds received in battle. At one time, only physicians administered the enemas, and many early physicians required that an enema be administered before bleeding. Medication and nutrients were sometimes administered in the enemas.

Many cultures used ritual and routine cleansing with enemas to help maintain health. Even today, some cultures still use the enema as a vital part of treatment for all conditions. Enemas can be a valuable part of a detoxification program and are still used to relieve extreme constipation.

CATHARTICS

A cathartic, sometimes called a purgative, is a substance taken orally that causes an active movement of the bowels. Because constipation was considered a disease rather than a symptom, cathartics were used even more frequently than enemas to cleanse the digestive tract.

Cathartics have been used for centuries, but because of their toxicity several of the favorites used by the ancients are now obsolete. Calomel was dangerous because it disturbed the mineral balance of the body and could result in mercury poisoning. Croton oil blistered the skin and deaths were reported from as few as 20 drops.

Cathartics were often considered an essential part of treatment, helping to remove and cleanse morbid humors. Each humor had its specific purgative, which was supposed to act on it and it alone. As with bleeding, purgatives were not used with the very young or very old. This routine use of cathartics for all medical conditions has long been abandoned. However, laxatives—a mild form of cathartic—are still sometimes prescribed by physicians and used by many people.

EMETICS

An emetic is a substance that induces vomiting. Nearly all the ancient civilizations routinely used emetics as cleansing treatments, in addition to cathartics and enemas. An active emetic, such as white hellebore, was supposed to recall the humors from the innermost recesses of the body. Until this century, it was felt that emetics and cathartics cleansed the body of harmful accumulations, increased the appetite, promoted digestion, cooled the system, and destroyed wind.

Emetics were standard treatment for gastric disturbances, and they were used as routine treatment for many medical conditions. Emetics were kept ready for the "ease, comfort, and happiness" of the patient. With our better understanding of physiology and digestion, we now realize that these measures are too harsh, and in some instances can be fatal. Proper diet and nutrition better aid digestion, and cleansing can be accomplished by milder methods. However, emetics are still used today to induce vomiting in some poisoning cases.

TREPHINATION

Trephination involves cutting a section of bone out of the skull. Evidence of trephined skulls dates to around 10,000 B.C. Over the years, many ancient trephined skulls with round or oval pieces of bone removed have been found all over the world. The holes vary in size, and some skulls found in North America contain multiple holes.

For 2,000 years, surgeons have used trephination to relieve brain compression caused by fractures. However, many ancient trephined skulls

show no evidence of fracture. It is believed that trephination was also performed as a purification or cleansing treatment, and that the bones removed were worn as protective amulets. As late as the 17th century, surgeons trephined skulls as treatment for epilepsy and other nervous and convulsive diseases, to "allow evil air to breathe out." Until recent years, some tribal societies used trephination for treatment of chronic headaches.

BATHS

Numerous types of baths have been used by all civilizations to wash away illness and to purify and cleanse the body. Sickness was considered an unclean state, and purification of both the sick person and the home was required. The original baths were taken in rivers, seas, lakes, and pools. Springs were considered to be divine, with special powers for healing, and enhancing fertility.

The temperature of the medicinal bath varied with its medical purpose and the disease involved. For centuries, cold baths and cooling compresses have been used to treat fevers and help reduce pain. Tepid or warm baths were used to calm hysterical and agitated, mentally ill patients, because warm water has a sedative effect that tends to induce both relaxation and sleep.

The most popular was the hot bath, dating back as far as ancient Egypt. A hot bath is clinically analgesic, but is also stimulating to the nervous system. The Greeks and Romans frequented bathhouses in which both hot and cold baths were available. In medieval Europe, there were no baths in private homes and the general public went to bath houses, not just for cleanliness, but for their health. Bleeding, cupping, and massage were available at bathhouses, along with various tonics and herbal remedies.

The hot bath caused sweating, which was considered therapeutic as well as cleansing. According to ancient tradition, there were three kinds of sweat: the sweat of illness, of toil, and of bathing. Steam baths and wet saunas are used today to help respiratory diseases and relieve rheumatic pain. They are also helpful for skin tone and texture.

MASSAGE

Humans have practiced some form of massage throughout their history. Some massages were no more than an oil rub. Others involved deeper bodywork to relieve muscle tension and help eliminate waste matter from the muscles. Massage also served as a mechanical cleanser, pushing out waste products, particularly in those suffering from constipation.

Massage has been described with many different terms, such as passive exercise, therapeutic manipulation, stroking and kneading, rubbing, and mechano therapy. As medical theory and practice have expanded, bodywork has kept pace. During this century, there has been an explosion of

techniques, practitioners, and discoveries of new ways in which the hands can be used to affect human physiology. Regardless of the technique used, massage helps to cleanse and balance the body.

ACUPUNCTURE

Organized medicine began in China in the first millennium B.C. Although the origin of acupuncture in China is not clear, the first written reference to it dates to 90 B.C. It is probable that the technique is older.

Acupuncture involves inserting, into the skin, fine metal needles one-half to several inches in length. Some needles are inserted gently and others are inserted with force to different depths. The needles may then be heated, twirled, or vibrated. They are left in place for varying amounts of time, depending on the condition being treated.

The points where the needles are inserted are called acupuncture points, which are located on meridians that run the length of the body. These meridians are called energy pathways and are believed to control certain physical conditions. Traditional Chinese physicians believe that all disease or pain is the result of imbalance in the energy flow along these meridians. Inserting acupuncture needles at the appropriate points restores and balances the energy by diminishing an excess and replenishing a deficiency. Order and harmonious balance are thus restored in the chi, or life force, that circulates through all the organs of the body.

FASTING

True fasting means complete abstinence from food and beverage, including water. Early humans began to fast in an attempt to placate divine powers they believed to be displeased with them. As time went by, fasting became part of religious and purification rituals. Hippocrates and other early physicians felt that fasting dried the body and balanced the humors, but it was not used with infants or the elderly. Although fasting was occasionally prescribed as a cleansing treatment, most early physicians preferred the emetic, cathartic, and bleeding approaches to cleanse and balance the body.

Today many people use periodic fasting as a cleansing procedure and in religious observances. Very few people follow true fasting, but consume some type of juice or broth in addition to water.

EARLY MEDICATIONS

Early medications in most cultures were prepared from plants. Flowers, fruits, roots, barks, leaves, juices, oils, and resins were used. Many plants were believed to have specific applications for balancing a particular humor or

element. The Chinese claim to have used herbal remedies for over 10,000 years, to balance their five elements of fire, metal, earth, water, and wood. Ancient literature in India listed 760 plants as having medicinal properties. They, too, were used to balance their five elements of wind, fire, water, earth, and space. However, history points to the Egyptians as the first people to use plant remedies in an organized way.

Resinous materials were used as remedies for their antiseptic properties, while wine and other alcoholic preparations were widely used for their anesthetic properties. Mineral remedies were also used, particularly in Egyptian and Hindu pharmacies. In most cultures, mercury was considered the "king of metals" and was given both externally and internally.

Many cultures, especially in the ancient East, felt that water had cleansing and cooling properties, and purified both body and soul. Water was employed for its own medicinal properties and also as a vehicle for other remedies.

Several ancient civilizations classified medicines according to their function, such as emetic, purgative, laxative, tonic, and aphrodisiac, for a total of 35 different classifications. Medications were prescribed in several forms, including infusions, mixtures, pills, salves, syrups, pastes, plasters, poultices, powders, ointments, suppositories, tinctures, and fumigations. Preparation of these various forms of medication was governed largely by astrology. A particular phase of the moon or positions of the planets and stars were considered an important prerequisite in preparation procedures.

Treatment with all medications was an attempt to cleanse, purify, or balance the humors or elements of the body. Although most ancient remedies are not in use today, some medicinal herbs are still given for the same conditions. Modern scientific research into the medicinal actions of these herbs continues to verify the effectiveness of many of these "folk remedies." Many modern prescription medicines have been derived from plants.

Contemporary Approaches

Many different cleansing, detoxification, and balancing techniques are discussed in later chapters. In order to better understand these therapy modalities, it is necessary to understand the philosophy of the medical discipline offering that therapy.

Current Medical Disciplines

As the practice of medicine evolved over the centuries, many different schools of thought and methods of treatment developed. Several medical ideologies exist today. In some instances, these ideologies work in harmony but, sadly, there is often conflict and competition among them.

Most people are unaware of the differences in medical disciplines and what each has to offer. Every person should have enough knowledge to be able to

make an informed decision about the type of practitioner with whom the responsibility for health care will be shared.

ALLOPATHY

In North America, the most common medical practice is allopathy, sometimes called orthodox or modern medicine. Although medicine is often described as the art of healing, allopathy is based on a belief in medicine as a science. Physicians with an MD degree are allopaths, and most of the medical schools in North America are allopathic.

There are two general divisions in allopathy: medicine and surgery. The medical division is descended from the European university system, established over 1000 years ago. Surgery's historical roots come from the barber-surgeons who practiced minor surgeries for hundreds of years. Although a medical doctor may choose to be a general practitioner (GP), both medicine and surgery have many different types of specialties:

Medicine Surgery

Internal medicine - Surgery

Cardiology - Orthopedics

Gastroenterology - Urology

Pediatrics - Ear, nose, and throat

Geriatrics - Obstetrics and gynecology

Dermatology

Immunology - Anesthesiology

Epidemiology - Ophthalmology

Allergy

Neurology

Psychiatry

Radiology

Pathology

Because of these specialties, allopathic practices often tend to be rather compartmentalized, focusing on parts of the body or particular body systems, frequently without considering the emotional and psychological aspects that are always involved in both health and illness. For traumas, acute bacterial

infections, and medical emergencies, allopathic medicine is very effective, but it does not handle viral infections, degenerative diseases, serious cancers, mental illness, or functional illness nearly as well.

Allopathic medicine defines health primarily as the maintenance of a certain level of measurable values and vital signs. These include normal values for blood pressure, body temperature, pulse, respiratory rate, visual acuity, auditory threshold, electrolyte balance, height, and weight. Many of these values are determined by lab tests, and in general, allopathic medicine relies on technology for diagnosis and treatment. The body and its functions must display no abnormalities; dysfunctions in the life processes are considered to be disease.

Allopaths treat disease with medications that produce different effects from those that the disease produces. Many allopaths use only pharmaceuticals; if they use nutritional therapy, it is usually as a minor secondary treatment. They only receive approximately 10 to 20 hours of nutritional instruction in medical school. However, it is becoming more common for allopaths to ask patients about their dietary habits or to attempt to correct some health problems with changes in diet.

There are allopaths who have augmented their practices with techniques that are not part of traditional allopathic procedure. For example, environmental medicine physicians receive additional hours of training in nutritional, homeopathic, herbal, and many other therapies. They treat environmentally ill patients and patients in need of detoxification, using contemporary cleansing and balancing methods. Other physicians have added basic "hands-on" modalities developed by chiropractors that allow them to both balance and treat the body.

Detoxification and Allopathy

Few detoxification treatments are offered in allopathic medicine. It does not generally acknowledge the effects of chemicals on the body except in cases of poisoning and death. The allopathic **use** of drugs for most treatments introduces more chemicals to bodies that are already laboring under a toxic load.

Practitioners do use chelation therapy - a method of removing chemicals from the body- for lead poisoning, but most do not acknowledge its value for atherosclerosis. Some physical therapy treatments, such as soaks and whirlpools, offer minimal detoxification possibilities.

While some allopaths suggest special diets and exercise, which can be cleansing, these are not primary constituents of allopathic practice. Most allopaths seldom recommend nutritional supplements or acknowledge their role in detoxification, repair, and maintenance of health. Some practitioners even feel that nutritional supplements are injurious to health.



OSTEOPATHY

The basic theory of osteopathy has altered little since its inception in the mid-19th century. Osteopathy accepts the interrelation ship of all parts of the body, as well as the body's inherent capacity to resist disease and to repair itself. The osteopathic philosophy of disease considers that strains or dislocations in the skeletal system affect the body's structural integrity and can result in disease. Osteopaths use physical manipulation to correct skeletal and other problems.

Osteopaths are often primary care physicians, who prescribe drugs and perform surgery. They combine broad medical knowledge with their manipulation techniques. Nineteen osteopathic medical colleges in the United States grant Do degrees. Osteopathic pharmacology and medical specialties are the same as allopathic pharmacology and medical specialties. Osteopaths and allopaths take the same medical licensing exams.

Osteopathic manipulations balance the skeleton, restore nerves, increase lymph and blood circulation, and relieve muscle spasms. These are valuable balancing and cleansing techniques. Although it depends on the practitioner, osteopathy generally places more emphasis on diet and exercise than does allopathy. Many osteopathic physicians also have additional training in alter native methods of treatment.

CHIROPRACTIC

Chiropractic derives from the Greek words *kheir*, meaning hand, and *praktikos*, meaning practical. It was developed by D.D.Palmer in 1895 and was conceived as a natural approach to healing, drawing upon the recuperative powers of the body. From 17 chiropractic colleges in North America, chiropractors receive a Dc degree, which permits them to use spinal manipulation to correct spinal imbalances. They believe such imbalances can cause many diseases and other health problems.

Chiropractic was negatively affected by the Flexner Report (1910), which consolidated allopathic medical education and strengthened its position (see Homeopathy, below). With time, government support and financing became available to allopathic medical education, while chiropractic education remained tuition driven and received no external support for research.

Organized medicine also promoted licensing regulations, believing that chiropractic graduates would be unable to pass the exams. However, chiropractic schools upgraded their curriculum and their graduates began to pass the Basic Science Board exams. In 1974, the Council of Chiropractic Education (CCE), which received recognition from the Department of Education, was established and set up standards for the chiropractic profession. All North American chiropractic colleges are now accredited by the CCE.

Modern chiropractic treatment has added diagnostic techniques, including X ray and applied kinesiology, but chiropractors cannot prescribe drugs or perform surgery. Much emphasis is placed on exercise, diet, and nutritional supplementation. Chiropractors incorporate treatments with heat and ice, massage, electrical stimulation, traction, ultrasound, and trigger-point therapy (locating and working with the specific points on the body that cause the tension or pain).

Chiropractic offers several cleansing modalities. Manipulation treatments both balance and cleanse. Their knowledge of nutrition enables chiropractors to recommend many cleansing and balancing nutrients. Trigger-point therapy and electrical stimulation also cause the release of toxins.

Chiropractic practitioners have developed many new hands-on techniques that are useful in balancing the body. These include Contact Reflex Analysis (cRA) and Nutritional Reflex Technique (NRT). These two techniques utilize the body's reflexes to analyze the structural, metabolic, and nutritional needs of the body, allowing determination of the root cause of a health problem. Bio Set, Nambudripad's Allergy Elimination Technique (NAET), and Total Body Modification (TBM) are techniques that combine kinesiology, acupuncture, and other methods to treat allergies and other health problems.

HOMEOPATHY

Homeopathy is a medical system developed 200 years ago by German physician Samuel Hahnemann (1755-1843). Hahnemann was critical of the harsh, suppressive, conventional medical therapies of the day. He developed the Law of Similars, based on his experiences and the writings of Hippocrates and Paracelsus, which states that a substance that causes symptoms in healthy persons can help cure a sick person who has similar symptoms.

Hahnemann chose the word homeopathy to describe this medical system. The Greek root *homoios* means similar, and the root *pathos* means suffering

or disease. Hahnemann discovered that the body's responses to illness are an effort to heal itself. He realized that these efforts to heal were not always strong enough to complete the healing process, and he concluded that treatment should stimulate the symptoms developed by the body in response to illness.

To cure a patient, Hahnemann found he had to choose the homeopathic remedy that most closely fit the patient's main symptoms, as well as the way in which the symptom is affected by qualities such as heat, cold, and motion. Emotional symptoms may be as important or even more important than physical symptoms. An important principle of homeopathy is the individualization of the remedy to the person's physical and emotional characteristics.

Hahnemann treated the "vital force"-a person's overall, interconnected energetic and defense processes that aid in self-healing. The vital force guides the homeopath to determine whether or not a remedy is working. Hahnemann realized that he was practicing "energy medicine," as the body seemed to "resonate" with the remedy used.

Homeopathy spread throughout Europe and then the United States. The first national medical association in the United States was the American Institute of Homeopathy, founded in 1844. The survival rate of patients treated with homeopathic remedies in 1900 was two to eight times that of patients given the conventional medical care of that era. Homeopathy was used successfully during cholera, typhoid, scarlet fever, and yellow fever epidemics.

Homeopathy offered an integrated, coherent, systematic basis for its practice, and it threatened orthodox medicine of the day. Partly in response to the growth of homeopathy, a rival medical group, known as the American Medical Association (AMA), formed in 1847 to slow the development of homeopathy. In 1855, the AMA ruled that orthodox physicians would lose their membership in the AMA if they consulted with a homeopathic physician or other "non regular" practitioner.

By the early 1900s, there were 22 homeopathic medical schools and more than 100 homeopathic hospitals in the United States. Education at the homeopathic medical schools was of similar quality to that offered at the orthodox medical schools of the day. However, in 1910 Abraham Flexner prepared a report for the Carnegie Endowment for the Advancement of Teaching in cooperation with leading members of the AMA.

The Flexner Report gave the homeopathic colleges poor ratings. As a result, the homeopathic schools converted to a more orthodox medical program based on "pure science" and the theory that germs (micro organisms) cause disease. Less time was spent studying homeopathic principles and remedies. With this change in curricula, graduates of homeopathic schools were not as skilled at homeopathic prescribing as were earlier graduates.

Pain-killing drugs and antibiotics that seemed to work magically soon became the most used medicines in North America. Orthodox physicians were able to

see and treat patients in a shorter period of time because their approach was less comprehensive than that of homeopaths. Drug companies, which controlled the major medical journals, were antagonistic toward homeopathy. By 1950, all homeopathic medical schools in the United States had closed or were no longer teaching homeopathy.

In the last 20 years, however, homeopathy has regained popularity because of people's desire for more natural treatments without the serious side effects that can accompany pharmaceuticals. (See chapter 28, Homeopathy and Bach Flower Remedies, for further discussion of remedies.) Homeopathy is used widely in Europe, India, and Britain. In Britain, 42 percent of physicians refer patients to homeopaths, and India has more than 100 homeopathic medical colleges. There are now several academies in the United States where a homeopathic education may be obtained.

Flexner Report

The Flexner Report described the "unscientific basis" of some medical schools. It placed the highest value on those medical schools with a full-time teaching faculty who taught a more "scientific" analysis of the human body. Only graduates of the schools that received a high rating were allowed to take the medical licensing exams.

HOMOTOXICOLOGY

In an attempt to synthesize medicine, the German physician Hans-Heinrich Reckeweg proposed the concept of homotoxicology in 1955. It is considered by some to be a "marriage" between allopathy and homeopathy, and is based on the assumption that the body is a dynamic system that constantly adjusts to the environment to remain in a state of balance. Reckeweg considered disease to be the body's struggle against endogenous (internal) and exogenous (external) homotoxins- substances that are toxic to humans-and the attempt to compensate for homotoxically related damage.

Reckeweg described five interlinked sub systems of the body's defense that combat and render toxins harmless:

- production of antibodies
- use of neuronal adaptation hormones
- toxin defense by the nervous system
- detoxification by the liver
- detoxification by the connective tissue

Homotoxicological remedies stimulate and regulate the self-healing capabilities of the body, and avoid any damage resulting from the therapy. Reckeweg felt that treatment should involve as few side effects as possible

because the body is already under stress. His treatments were designed to give rapid, optimum relief with no inhibition or suppression of symptoms, which prevents the body from eliminating the homotoxins.

For simple treatments, Reckeweg prescribed individual homeopathic remedies, organ and tissue preparations, sarcodes (remedies made from healthy tissue), nosodes (remedies made from diseased tissue or microorganisms), trace elements, catalysts, and homeopathically prepared allopathic drugs. For syndromes, in which a group of symptoms occur that characterize a particular disease, Reckeweg used combination homeopathic remedies. These remedies cover a broad range of possible causes of the health problems and functional disorders, including constitutional circumstances and environmental influences.

There are no homotoxicological medical schools in the world, but some practitioners from other medical disciplines have adopted homotoxicological principles in their practices. Homotoxicology offers many of the same cleansing and balancing techniques as homeopathy.

NATUROPATHY

Naturopathy had its beginnings in treatments that included clean air, food, and water. It was first brought to the United States from Germany in 1892. In 1902, a group of German homeopathic physicians enlarged the treatment methods to include herbs, homeopathy, and physical therapy. The name naturopathy is a combination of the words nature and homeopathy.

The philosophy of naturopathy includes the following principles of healing:

- To first do no harm
- To recognize the healing power of nature
- To treat the whole person
- To identify and treat the cause of illness
- To realize that prevention is the best cure
- To teach the principles of healthy living and preventive medicine

Naturopathic physicians receive training in clinical nutrition, physical medicine, homeopathic medicine, botanical medicine, naturopathic manipulations, psychological medicine, cleansing protocols, and minor surgery. They may elect to do further training in naturopathic obstetrics, acupuncture and Oriental medicine, and Ayurvedic medicine.

In the early 1900s, there were as many as 45 naturopathic medical schools in the U.S. These schools were affected by the 1910 Flexner Report, as were

homeopathic and chiropractic schools. By 1955 there were only two schools left, and by 1978, just one.

Today there are five accredited naturopathic medical colleges in North America: the National College of Naturopathic Medicine in Portland, Oregon; Bastyr University of Natural Health Sciences in Seattle, Washington; the Southwest College of Naturopathic Medicine in Scottsdale, Arizona; Bridgeport University in Bridgeport, Connecticut ; and the Canadian College of Naturopathic Medicine in Toronto, Ontario. Graduates of these schools are trained to be primary care physicians and are granted an ND degree. Several states currently provide licensing for naturopathic physicians.

Naturopathy

Naturopathy offers numerous treatment possibilities for detoxification and balancing, using herbs, homeopathic remedies, and extensive diet and nutritional therapy.

AYURVEDIC MEDICINE

Ayurvedic medicine is more than 5,000 years old, and is the oldest medical system known. This Indian system of preventive medicine and health care is still practiced to day, in India and around the world. The Ayurvedic practitioner concentrates on the constitutional type of the patient rather than the presence of disease.

In Ayurvedic medicine, treatment is based on *doshas*, which are metabolic body types. Doshas influence physique, and have a great influence on a person's health and well-being. Body type dictates appropriate diet, physical activity, and the correct choice of medical treatments, as well as specific prevention techniques. The dosha is like a blueprint that maps the innate tendencies in a person's system, including both physical and mental attributes.

The three basic doshas are Vata, Pitta, and Kapha. Most people are a combination of two dosha types, with one dosha more prominent. Vata is the most active dosha and causes the majority of problems, especially if the disorders relate to stress. A balance between all three doshas is essential for optimum health.

Ayurvedic medicine teaches that when the doshas are balanced a person will have good health and energy. If the balance is disturbed, the body will be susceptible to stressors such as micro-organisms, overwork, or poor nutrition. Balancing the body prevents disease and promotes emotional and spiritual growth. Diet, exercise, daily routine, and seasonal routine all work to balance the body.

There are two approaches to Ayurvedic treatment, constitutional and clinical. Their

use depends on the type and severity of the disorder. Balancing the doshas is the goal of both types of treatment. Constitutional treatment utilizes diet, mild herbs, specially prepared mineral substances, and lifestyle adjustments to balance the body and return it to harmony. Clinical treatment employs strong herbs and medications, purification and cleansing methods (including medicated enemas), therapeutic vomiting, nasal medications, and therapeutic bloodletting.

The herbs used in both types of Ayurvedic treatment are selected according to their taste or essence, which indicate their properties. For example, herbs that are pungent, sour, and salty cause heat and increase Pitta. Sweet, bitter, and astringent herbs cool the body and decrease Pitta. All plants are categorized by these properties, which the Ayurvedic herbalist utilizes in determining the correct prescription.

There are robust medical colleges in India that grant degrees in Ayurvedic medicine upon completion of a five-year course and a hospital residency. In North America, there is no state or provincial licensing for practitioners of Ayurvedic medicine, although there are several private colleges. Ayurvedic

medical care is available from some Indian practitioners who have come to North America. In addition, some non-Indian practitioners (including naturopaths, chiropractors, osteopaths, and allopaths) have added Ayurvedic medical treatments to their practices after receiving training through Ayurvedic seminars and institutes.

Ayurvedic Medicine

The Ayurvedic physician considers every aspect of life, including physical, mental, emotional, and spiritual. This medical system can treat chronic illnesses connected to lifestyle, as well as acute and traumatic conditions. Its techniques emphasize balancing and detoxification.

CHINESE MEDICINE

Chinese medicine is another ancient system of health maintenance and healing that is still available today. It has been practiced for over 3,000 years in China and is now utilized by many Western practitioners. In Chinese medicine, a balance between yin and *yang* determines health. These are two complementary qualities that co-exist in all of nature, including the body. Yin is negative, feminine, contractive, small, dark, and associated with water and metal. Yang is positive, masculine, expansive, big, light, and associated with fire and wood.

All substances, places, and times are either yin, yang, or a combination of the two. Organs of the body are classified as either yin or yang. Yin organs function in partnership with a corresponding yang organ, with hollow organs considered to be yang, and solid organs yin.

Lesson 2 – Approaches to Detoxification

Chinese medicine also classifies all substances and objects by five elements: fire, wood, earth, water, and metal. Organs of the body, foods, and drugs are all designated by their elemental content.

Organs in Chinese medicine are actually considered as "spheres of function." When a Chinese physician speaks of an organ, he is considering not only the organ, but the functions related to that organ. There are twelve organs (tsang) in Chinese medicine, although two—the "circulation-sex" and "triple warmer"—have no exact anatomical equivalent. The "circulation-sex" or pericardium (sac around the heart) is known as the "gate of life." The "triple warmer" assimilates and transports energy and maintains body temperature. Some people feel it correlates with the endocrine system.

Beyond the qualities of yin and yang, and the five elements, a universal, vital energy called *chi* (spelled in many different ways) flows both into and throughout the human body. Some of our chi is inherited from our parents and the rest comes from the air we breathe and the food we eat. Chinese medicine directs that chi must be balanced; each organ must have the optimum amount of chi for the body to function properly. A deficiency or an excess of chi is considered to constitute disease. Diagnosis requires locating the chi imbalance, and treatment corrects the chi balance in the organs.

Chi flows along invisible energy meridians throughout the body. Each meridian is named for the organ through which it flows. Meridians transport chi, serve as the communications system for the body, regulate organ systems, and connect the interior and exterior of the body. Exterior flows mirror the deep, internal flows of energy in the body. All treatment is done on the surface, exterior flows, leading to the correction of internal chi.

Chinese doctors make a diagnosis through looking, listening and smelling (these two words are identical in Chinese), asking, and touching. The Chinese physician also examines the tongue, palpates parts of the body, and takes the pulse. There are 28 different pulse qualities that are diagnostic of distinct imbalances.

After examination of the patient, imbalances are identified, including whether they represent a deficiency or an excess. Treatment may include acupuncture, herbal remedies, massage, exercise, diet, or a combination of these and other treatments.

Training in Chinese medicine is available in North America, with over 30 schools of acupuncture in the United States alone. Programs vary in length, depending on the school. Licensing laws vary from state to state and province to province. Schools that teach only acupuncture techniques grant degrees for licensed acupuncturists (L.Ac.). Schools that teach a full Chinese medicine curriculum in addition to acupuncture grant either an OMD (Oriental Medical Doctor) or a DOM (Doctor of Oriental Medicine) degree. The two degrees are equivalent.

VIBRATIONAL MEDICINE

Vibrational medicine is energy medicine. Dr. Richard Gerber of Livonia, Michigan, the author of *Vibrational Medicine*, defines it as a healing philosophy that treats the whole person—the mind, body, and spirit—by delivering measured amounts of frequency specific energy to the human multi-dimensional system. It seeks to heal the physical body by balancing the higher energetic systems.

Modern medicine is based on the Newtonian concept of the human body as a complex machine. Vibrational medicine, based on the Einsteinian viewpoint, considers the human body to be a multidimensional organism made up of physical systems that are interrelated with complex regulatory energetic fields. Vibrational medicine techniques direct healing energy into these energy fields.

Although alternative medicine more commonly uses vibrational healing methods, modern medicine does use some energy techniques. The use of electromagnetic fields to stimulate fracture healing, radiation to treat cancer, and electricity to alleviate pain are all energy modalities.

Vibrational Healing

Vibrational healing methods include homeopathy, acupuncture, some types of bodywork, Reiki, flower essences, gem therapy, sound therapy, color therapy, and other techniques. All of these therapies affect and heal the body on an energetic level. Vibrational medicine cleanses and balances the body at the deepest cellular level.