

Natural Health

Introduction

Health and vitality are the natural states of being for the human body. Because of eating habits and lifestyle choices, however, most people are suffering from various health conditions that inhibit their ability to enjoy life to the fullest. Unfortunately, the predominant medical approach is to treat such situations with medication or surgery that may provide temporary relief for the symptoms, but virtually never correct the root cause of the problem. And it is becoming increasingly apparent that the side effects of such medical practices are often more damaging to our health than the original ailment.

“Iatrogenetic” is the medical term for illnesses that are caused by the medical profession. It is difficult to obtain accurate information on the extent of this problem because of potential litigation issues. However, a 10 year study of government statistics completed in 2003 concluded that iatrogenetic illness is now the *leading* cause of death in the United States. And further, it concluded that adverse reactions to prescription drugs are responsible for more than 300,000 deaths each year. That is the equivalent of more than two full jumbo jets falling out of the sky every day!

The intent here is not to criticize the millions of dedicated medical practitioners, most of whom are working long hours every day in an effort to relieve the pain and suffering of patients who are in need. Rather, it is to suggest that the western medical model that relies primarily on medication and surgery has taken a wrong turn.

It is up to each of us to learn how to care for our own body. Unfortunately, most of the information with which we are bombarded on a daily basis is provided by companies who are interested in selling us products or providing us services, rather than helping us understand how to keep our bodies healthy. The human body has amazing resiliency and recuperative powers. If we work in cooperation with the natural functioning of the body, it is seldom too late to make changes that will enable us to begin our journey on the road to full healing and rejuvenation.

The human body is not just a physical mechanism . . . it is a complex unit that also involves our thoughts, emotions and spiritual nature. The purpose of this module is to provide a few basics on how the human body functions, and to offer suggestions, including lifestyle considerations, on how each of us can care for our body in a way that will promote optimum health and longevity.

The Most Common Causes of Disease

The most common causes of disease all relate to a build-up of toxins and residues in the body that inhibit the various organs and systems from performing their normal functions. We may think of this in terms of *internal hygiene*.

As children, most of us were taught to regularly wash our hands and face, brush our teeth, wash our hair, and bathe or take a shower – all aspects of *external hygiene*. But unfortunately, most

of us were never taught the importance or the methods of *internal* hygiene – keeping our internal organs and systems clean and well hydrated.

Our cultural attitude is that the best we can hope for is a reasonably healthy childhood and early adulthood. But as we progress into middle age and eventually our later years, the expectation is that our health, vitality and mobility will gradually deteriorate. We tend to think that our only option is to slow down the deterioration as much as possible. Unfortunately, if we resort to medications or surgery in response to various symptoms of illness within the body, we only tend to exacerbate the problem.

Most of us have never been taught about the regenerative powers of the body – that if we work in harmony with the natural processes of the body, cleaning out the toxins and residues as they accumulate, and making appropriate changes to our eating and lifestyle habits, the vitality and mobility that we experienced in our younger years can be restored. Even if we are approaching the twilight years of life, it is virtually never too late to reverse the trend of deteriorating health.

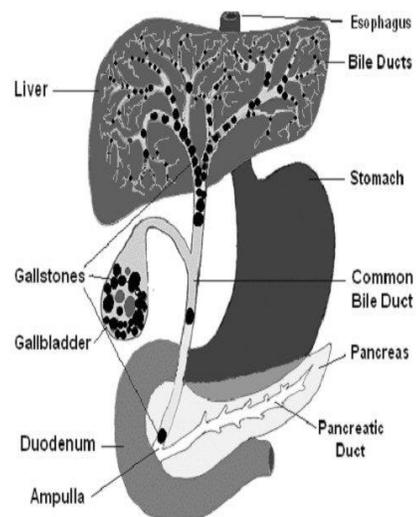
In this module, we will focus on four areas of internal hygiene and hydration of the body, but they are all closely interrelated:

- Congestion within the Liver and Gallbladder
- Dehydration
- Kidney Stones
- Congested Intestinal Tract (Colon)

Congestion within the Liver and Gallbladder

The liver, which is the largest organ in the body, is responsible for processing, distributing and maintaining the body's "fuel supply." Also, it makes new amino acids and converts existing ones into proteins, which serve as building blocks for every cell in the body. Another function of the liver is to break down alcohol and other toxic substances, including bacteria, parasites and certain drug compounds. As more than a quart of blood is filtered through the liver every minute, toxins are removed and nutrients are distributed throughout the body.

Yet another important role of the liver is to produce bile, which is crucial to the proper digestion of food. The gallbladder functions in conjunction with the liver, serving primarily as a reservoir for the bile that is produced in the liver. Bile is produced at a fairly constant rate throughout the day. However, the need for bile varies in accordance with the digestive cycles. During periods of peak demand, bile flow from the liver is supplemented by bile that has been stored the gallbladder.



One of the most common health problems involves the formation of hardened “stones” within the liver and gallbladder. These stones are usually referred to as “gallstones” when they occur in the gallbladder, and “intrahepatic” stones when they occur in the liver. But since both types of stones are of a similar nature, we will refer to them as “gallstones,” regardless of whether they reside in the gallbladder or liver.

Gallstones form as a result of an unhealthy diet and/or lifestyle. They consist primarily of cholesterol and other residues. In a chronic situation, it is not uncommon for a person’s liver and gallbladder to contain as many as several thousand gallstones, ranging from approximately the size of a grain of wheat, to that of a pea. However, they occasionally grow considerably larger. When the liver and gallbladder become congested with gallstones, all of the functions of the liver become impaired. Most commonly, the gallstones become lodged in the bile ducts and inhibit the flow of bile to the digestive tract. In severe cases, the amount of bile reaching the digestive tract may be only 25% of that which is needed for proper digestion.

Gallstones also interfere with the detoxification processes that normally take place within the liver. Over time, as the blood vessels within the liver become increasingly clogged, the normal flow of blood through the liver, and the consequent distribution of nutrients through the body, becomes restricted.

The good news is that gallstones can be removed from the liver and gallbladder through a rather simple series of cleanses. And by maintaining a healthy diet and lifestyle, the liver and gallbladder can be restored to a healthy state of functioning. Almost invariably, there will be a noticeable increase in one’s energy level even after just the first cleanse.

Information on how to do a liver cleanse is available in the book, *The Amazing Liver and Gallbladder Flush*, by Andreas Moritz. It is available at www.ener-chi.com. If one chooses to go through the various cleansing and hydration processes that are recommended, it is important to follow the guidelines that are provided so that the toxins are removed in a gradual, properly sequenced, and safe manner.

It is interesting to note that with health care costs in the United States now exceeding \$1.6 *trillion* annually, the single most important thing we can do to restore and maintain health and vitality – a liver and gallbladder cleanse – can be done at home with items readily available in most supermarkets for a cost of about \$10.

Dehydration

Dehydration of the body is one of the most common health problems. Drinking sufficient quantities of water at appropriate times throughout the day is probably the single most important thing we can do to improve our health. Perhaps this is not surprising when we realize that about 75% of our body consists of water.

Virtually all of the organs and systems within the human body require adequate amounts of water in order to function properly. People who do not drink enough water gradually lower the ratio of the volume of water that exists inside the cells, to the volume of water that is found outside the cells. This undermines all cellular activity, whether it involves cells of the skin, stomach, liver, kidneys, heart or brain.

Whenever there is cellular dehydration, metabolic waste products are not removed properly. This causes symptoms that resemble disease. Since more and more of the water within the body begins to accumulate outside the cells, this may typically manifest as water retention within the feet, legs, arms and face. Consequently, dehydration may not be apparent to the afflicted person. Also, the kidneys may begin to hold on to water, markedly reducing urinary secretion, and causing retention of potentially harmful waste products within the body.

Normally, cellular enzymes signal the brain when cells run out of water. However, enzymes in dehydrated cells become so inefficient that they are no longer able to register the drought-like conditions, and consequently fail to push the “thirst alarm button” within the brain.

A dehydrated person may also be suffering from lack of energy. Under normal conditions the water we drink keeps the cell volume balanced and the salt we eat maintains the balanced volume of water that is kept outside the cells and in circulation. This generates the proper osmotic pressure necessary for cellular nourishment and energy production. During dehydration, this basic mechanism begins to fail, leading to loss of energy and potentially serious cell damage.

Drinking a sufficient amount of fresh water is an essential prerequisite for avoiding disease and slowing the aging process. Anyone who is relatively healthy and wants to stay that way needs to drink approximately 6 to 8 glasses (8 oz. per glass) of water each day. This will ensure that the body maintains a sufficient level of hydration, which is necessary for efficient digestion, metabolism and waste removal. Our water intake should be adjusted to take into account body weight, with larger bodies needing proportionately more water. Also, exercise and other activities that stimulate perspiration create a need for additional water.

Suggested tips & schedule . . .

- *Start the day by drinking one glass of warm water. This will end the "drought" of the previous night's sleep and remove accumulated wastes from the excretory organs. Follow this with a second glass of warm water enhanced with a wedge of lemon and teaspoon of honey. The addition of lemon and honey has a very cleansing effect on the body.*
- *About half an hour before each meal, drink one glass of water. Doing this will keep your blood thin and help it to take in the nutrients your cells need. The water also helps increase the secretion of digestive juices, which is helpful to do right before eating. In contrast, drinking a lot of water or other beverages with your meal dilutes the digestive juices, which greatly undermines the digestive process and can cause weight gain.*
- *Following a meal, the blood uses up a considerable amount of water to distribute nutrients to the cells. In effect, the blood can become water deficient quite quickly. To counteract this, drink a glass of water approximately 2-3 hours after breakfast and lunch to restore the blood's water requirements.*



It is best to drink water that is at room temperature or slightly warmer. Ice water tends to constrict the muscles in the digestive tract, preventing them from functioning properly. If ice water is the only water available, it is best to drink it one swallow at a time, holding it in the mouth to warm it up somewhat before swallowing it.

Restoring proper hydration in the body should be done gradually, otherwise it could have harmful consequences! During severe dehydration, the body's cells are not able to function efficiently. To protect themselves against further loss of water, the cells make their membranes less penetrable to water diffusion by pulling in extra amounts of fats, including cholesterol. In this condition it would be unwise to suddenly start drinking large quantities of water. Since the cells have created a barrier in order to save water, they are in no position to absorb increased water all at once. The water would simply stagnate outside the cells and lead to water retention and weight gain. The transition from a state of severe dehydration to improved hydration should be very gradual and is best monitored by a health practitioner who understands the basics of water metabolism.

Dangers inherent in common beverages . . .

In most modern cultures, the majority of people tend to respond to the body's natural thirst signal by drinking beverages such as coffee, tea, soft drinks, beer, wine, or a wide range of other concoctions. While it is true that such drinks contain water, they also contain other things such as caffeine, alcohol, sugar, artificial sweeteners or other chemicals that act as strong dehydrators. The more of these beverages one consumes, the more dehydrated the body becomes. The effects they create in the body are exactly the opposite to the ones that are produced by water. For example, caffeine triggers stress responses that at first have strong diuretic effects, leading to increased urination. Beverages with added sugar raise the blood sugar level, which coerces the body to give up large quantities of water.

Kidney Stones

The kidneys truly are the body's "master chemists." They not only remove waste products and excess fluids from the body via the urine, but also maintain a critical balance of salt, potassium and acid. The main responsibility of the kidneys is to keep the blood pure and healthy, and maintain proper fluid balance within the body. To accomplish this, the kidneys need to constantly monitor normal blood volume and filter out the right quantity of urine in order to keep it balanced.

There are many factors that can disrupt this process and cause congestion in the kidneys. These factors include improper diet, dehydration, fatigue, overeating, gallstones, blood pressure disturbance, digestive disorders (especially constipation), medical or narcotic drugs, and vitamin supplements. When the kidneys are unable to separate the necessary amounts of urine from the blood, part of the urine keeps circulating around the body, thereby depositing urinary waste products in the blood vessels, joints, tissues and organs.

Tiny crystals are formed in the kidneys when urinary constituents, which are normally in solution, are precipitated. Precipitation occurs when these particles occur in excessive amounts or when urine becomes too concentrated. Stones in the kidneys start off as tiny crystals and can eventually become as large as an egg. The tiny crystals are too small to be detected by X-rays, and since they usually do not cause pain, they are rarely noticed. Yet they are big enough to block the flow of liquid through the tiny kidney tubules. Also, the crystal particles usually have sharp edges. Once released by the kidneys along with urine, they may cut and wear away the inner surface of the urinary canal during their passage to the urinary bladder. This can cause severe pain in the loins or lower back. There may even be blood in the urine, pain running down the legs, numbness in the thighs or difficulty in passing urine.

Most crystals or stones originate in the kidneys, although some may also be formed in the bladder. If a large stone enters one of the two urinary canals, urinary discharge becomes obstructed. This can lead to serious complications, such as kidney infection or kidney failure. Regardless of where the blockage occurs, anytime the kidneys are prevented from removing and regulating water and chemicals, these delicate organs are likely to suffer injury. The kidneys' various functions may be affected separately, so urine output may be normal despite considerable kidney disease.

Typical symptoms of congestion in the kidneys are strong body odor, water retention, abdominal swelling, rapid weight gain, high blood pressure, energy depletion, sweating of palms and feet, skin disorders, puffy eyelids and dark circles under the eyes.

Kidney cleanse . . .

There are various herbs that can effectively and painlessly dissolve kidney stones within a period of 3 to 6 weeks. Regardless of whether or not someone has been diagnosed with kidney stones, doing a kidney cleanse once or twice a year has tremendous curative and preventive benefits. The kidney cleanse not only improves overall physical health, but also tends to reduce stress, fear and anxieties.

We believe that the best source of information and guidelines for doing a kidney cleanse is: *The Amazing Liver and Gallbladder Flush*, by Andreas Moritz. It is available at www.ener-chi.com

Congested Intestinal Tract (Colon)

The body's health and vitality largely depend on the effortless and complete elimination of waste products from the intestinal tract. Most physical problems are caused by a build-up of waste material that may at first accumulate in the large intestine, commonly known as the colon, and then spread to other parts of the body, such as the liver, kidneys, heart and lungs.

When one eats highly processed foods that have been stripped of most nutrients, natural fiber and life force, the muscles wrapped around the colon have great difficulty moving along the partially digested food mass. When this substance remains in the colon for too long, it becomes progressively harder and drier. Accumulated or trapped waste material in the colon may consist of impacted feces, hardened mucus, dead cellular tissue, bacteria, parasites and various other toxic substances. Such toxins can find their way into the blood stream and lymph system, causing one to feel tired, sluggish or ill. Other common colon-related complaints include constipation, diarrhea, bloating, headaches, dizziness, nausea, sinusitis, eye and ear disorders, backaches, bad breath, body odor and disorders of the nervous system. Chronic situations are a common cause of colon cancer.

A healthy colon absorbs water, minerals and other nutrients. But when the membrane of the colon is impacted with plaque, it cannot properly assimilate and absorb these minerals and nutrients. Accordingly, the body will begin to suffer from nutrient deficiencies. Most diseases are, in fact, deficiency disorders. They arise when certain parts of the body suffer mal-nourishment, particularly minerals. The most common cause of mal-nourishment is intestinal congestion. Stated simply, a clean colon is a prerequisite for a healthy body.

Colon Hydrotherapy

Colon hydrotherapy, also called “colonic irrigation” or simply “colonic,” is perhaps one of the most effective colon therapies. Within a short period of time a colonic can eliminate large amounts of trapped waste that may have taken many years to accumulate. During a 40-50 minute session of colonic hydrotherapy, a total of 2-6 liters of distilled water is used to gently flush the colon. Through gentle abdominal massage during the colonic, old deposits of hardened mucus and fecal matter are loosened and subsequently flushed out by the water.

A colonic removes not only harmful, toxic waste, but it also tones, hydrates and rejuvenates the colon muscles. The repeated uptake and release of water improves the colon’s peristaltic action and reduces the transit time of fecal matter. In addition, colonic irrigation helps restore the colon’s natural shape, and stimulates the reflex points that connect the colon with all the parts of the body. This form of colon cleansing can detach old crusted layers of waste from the colon walls, which permits better water absorption and hydration of the colon and the body as a whole. However, it may take at least 2-3 colonic sessions for these latter benefits to take effect.

During a colonic, one may feel a slight discomfort from time to time when larger quantities of toxic waste detach themselves from the intestinal walls and move towards the rectum. However, the feeling of lightness, cleanness and clarity of mind soon afterwards more than compensates for any feelings of mild discomfort.

Colonic irrigation can also help with emotional problems. It is no coincidence that the transverse colon passes right through the solar plexus, which is the body’s emotional center. Most of our unresolved or “undigested” emotional issues are stored in the solar plexus and result in the tightening of the colon muscle. This may slow bowel movement and cause constipation. Colonics can help clear the physical obstruction and release the tension that caused the emotional repression in the first place.

Colonic cleansing is best done when the stomach is empty, or at least 2-3 hours after eating. It is beneficial to drink 1-2 glasses of water afterwards and eat a piece of fruit, or have some freshly prepared fruit juice one-half hour later. The first meal or two after the treatment should be light. After a colonic, the bowel movement will become naturally restored within about two days. If it takes longer than that, it indicates that the colon had accumulated unduly large amounts of waste over a period of many years.

There are several different types of colon hydrotherapy systems currently in use, but all serve the same function. Professional colonic therapists receive their training from a variety of sources, but there are not yet universal standards or licensing arrangements. Fees for a colon hydrotherapy session vary considerably, but a typical one-hour session is in the range of \$50 to \$75.

Healthy Nutrition

In the previous section, our focus was on how to keep our internal organs and systems clean, well hydrated and functioning in a healthy manner. Now it is time to discuss how to provide our body with the nutrients it needs to support a life of health and vitality.

Healthy nutrition involves a return to the simple gifts of nature – the fresh vegetables, delicious fruits, tasty seeds and nuts. Once we move beyond the fresh produce section of our local grocery store or supermarket, we can save ourselves a lot of money, and our body a lot of distress, if we leave most of the food items on the shelf, rather than putting them into our shopping cart.

Habits do not change easily. Unfortunately, the vast majority of our food preparation and eating habits in the western world are unhealthy – some dangerously so. It is human nature to assume that food producers would not market food products that are hazardous to our health. And even if some food producers are a bit unscrupulous, we still have government “watchdog” agencies who are looking out for our best interests, don’t we? In truth, such is *not* the case.

The first step in moving toward healthier nutrition is to become better informed. That is the intent of this module. From that point on, it is up to each individual to make wise choices for himself/herself, and to help make the best choices for their family . . . especially the children.

We wish you well!

Natural Foods vs. Processed Foods

A healthy diet is one that consists primarily of “natural” foods, including vegetables, herbs, fruits, berries, grains, seeds and nuts. Unfortunately, the diet of the majority of people in the western world consists predominately of “processed” foods. Typical problems with various processed foods are:

- They are infused with harmful preservatives in order to promote “shelf life.”
- They tend to be laden with unhealthy sugars, sweeteners and salts, designed to appeal to our taste buds, but which are detrimental to our body.
- Many processed foods contain artificial vitamins and minerals intended to convince consumers that the food products are “enriched” in nutritional value. In reality, most artificial vitamins and minerals cannot be assimilated into the bloodstream, and only tend to clog the digestive tract.
- Meat and meat products are usually derived from animals that have been fed large quantities of antibiotics, growth stimulants and other additives, all designed to maximize production on “factory farms.” The residuals of such additives find their way into the tissue of the animals and are passed onto consumers. In addition, many meat products are contaminated with illness-producing bacteria, such as Salmonella or E. coli.
- Some food products are “irradiated” in order to kill bacteria and promote shelf life, resulting in food that is lifeless and lacking in nutritional value.

- Most processed foods contain artificial coloring and flavoring designed to appeal to the aesthetics and taste buds of the consumer, but which are toxic to the body in many cases.
- Processed foods are frequently prepared by cooking them in oil that contains significant quantities of polyunsaturated fats, resulting in food that is unhealthy for the body.
- Numerous types of processed foods, such as the traditional “TV dinners,” are prepared and packaged in such a way as to be conveniently heated in a microwave oven prior to eating. Microwave cooking kills enzymes and other important nutrients, leaving essentially “dead” food that has very little nutritional value. Microwave cooking will be discussed in more detail later.

A diet that relies heavily on processed foods is sometimes referred to as the Standard American Diet, or “SAD” – the acronym says it all!

On the other hand, natural foods, if they are grown and prepared properly, and eaten when they are fresh, tend to provide the nutrients and life forces that are needed for a healthy body.

Modern commercial agricultural practices, unfortunately, tend to work against the production of healthy, natural foods. There has been an over-reliance on the use of chemical fertilizers and pesticides that are used to increase food production. With repeated growing cycles year after year, the soil tends to be leached of its natural minerals and other life-supporting nutrients. Such agricultural practices tend to diminish the life force and nutritional value of the fruits and vegetables. Also, chemicals that are used in such fertilization and protective practices tend to find their way into the fibers of the resulting vegetables, fruits and other agricultural products. Virtually all such chemicals are toxic to the human body, some more than others.

The emergence of “organic” farming is an effort to move back to more natural agricultural methods that do not rely on chemicals. Originally, “natural” food stores were the most common source of organic food products. But as consumer awareness has heightened, organic fruits and vegetables are now being sold in “specialty” sections of produce department in most mainstream supermarkets.



Since the marketing of organic produce is still in its relative infancy, uniform standards for specifying the conditions under which produce can legally be labeled as “organic” are not yet well established. So one cannot yet be absolutely certain when purchasing produce that is labeled “organic” that it is, indeed, totally chemical free. On the other hand, one can be relatively certain that produce that is not labeled “organic” probably has been subjected to at least some degree of chemical contamination.

Within the past several years there has been a dramatic increase in the number of “farmers’ markets”, in which local farmers sell their produce directly to consumers. Usually these are set up on a one-day per week basis, such as Saturday. There is no guarantee that such produce is free of chemical contamination, but the likelihood is that the produce grown on small local farms will be much more nutritious than that produced on commercial mega-farms.

The best possible solution to this situation is to have an organic garden of your own. In addition to being certain that the produce is raised in a chemical-free environment, there are other advantages. For example, fruits and vegetables can be eaten at their exact peak of ripeness and maturity, yielding the maximum nutritional value and tastiness. In contrast, commercial fruits and vegetables that must be harvested prior to peak maturity in order to allow for processing and distribution delays. This is a particularly important issue related to fruit, which is much healthier if eaten when it is naturally ripened. Also, for a variety of reasons related to the life force and cycles of the planet, fruits, vegetables and other natural foods are of the greatest nutritional value if they are grown in the same geographic vicinity as the area in which one lives.

Having your own organic garden is obviously much more of a challenge for city dwellers than for people who live in suburban or rural areas. In this regard, European cities have generally been much more progressive than American cities in creating “community” gardens where residents can rent a small plot in which to have their own garden or natural oasis.

Guidelines for Healthy Meals

The previous section provided a perspective on *what* foods to eat. Now we will provide some guidelines on *how* and *when* to eat them.

Cultural habits are hard to break. Dining typically involves not only the consumption of food and beverages, but also provides an opportunity for social interaction. Unfortunately, the eating habits of most people in the western world are detrimental to the promotion of health and vitality.

There are several factors that need to be taken into consideration. First and most importantly, each of us has a unique body, with unique nutritional requirements. One person may thrive on a particular food that might make another person ill. Or, foods that support our health in the winter months may not agree with us in the summer months. And, a food that may be nurturing to our health if eaten at midday may be detrimental to our health if eaten in the evening. However, there are some general “rules of thumb” that apply to most of us, based on the manner in which our bodies process food. Let’s start with the question of raw versus cooked natural foods.

Raw versus cooked . . .

Since heating foods kills enzymes and alters other nutrients, it would seem that eating a diet of nothing but raw natural food, such as fruits and vegetables, would be ideal. There certainly are a lot of other mammals that live on such a diet, and they seem to do just fine. And with the growth of raw food diets and menus catering to them, it appears that raw foods’ popularity is increasing. But it is not quite that simple.

Our digestive tracts need fiber in order properly process the foods we eat. Fiber is the “skeleton” of plants. Its primary role in our digestive process is to stimulate waves of muscular contractions which move the food along through the intestines. There is a commonly held belief that fiber cannot be digested, and leaves our body unaltered. But this applies only to the small intestine. In the large intestine (colon), fiber is attacked and broken down by a large number of “residential” bacteria. This can result in fermentation if the fiber does not pass through the colon in a reasonable amount of time.

Cooked vegetables and grains contain fiber which helps the digestive process, but does not overwhelm the colon. Also, the high water content of cooked foods generally makes the

passage through the intestinal tract much easier. While raw fresh vegetables contain the same fiber as cooked foods, it requires more time and energy to process raw foods through the intestines. Certain body types are more capable of dealing with large quantities of raw food. Many people have gone on virtually 100% raw food diets and have thrived on such a diet for extended periods of time. But in some cases, after as long as 10 or 20 years, their bodies began to suffer a physical breakdown. They could no longer cope with the breaking down of hard grains and raw vegetables.

The fiber in fruits is also beneficial to the digestive process. But ripened fruits have already been “cooked” by the sun. So cooking by artificial means is not necessary.

The safest approach is to maintain a reasonable balance between raw and cooked foods in our daily diet. If adjustments are made to increase the proportion of raw food, they should be made gradually so that the body is able to accommodate it accordingly.

The inclusion of raw vegetable juices in a person’s diet helps to provide enzymes and nutrients to offset those that are altered in the cooking process. Raw vegetable juices will be discussed in more detail later. If raw foods and cooked foods are combined in the same meal, raw foods, such as salads or fresh vegetable juice, should always be eaten first.

Other guidelines for meals . . .

- The main meal of the day should be eaten at mid-day when the sun is at its apex and digestive powers are the strongest, rather than in the evening when digestive strength is greatly subdued. And foods should not be eaten just before going to bed. There should be at least 3 hours between the last meal of the day and bedtime. Otherwise, food may remain undigested in the stomach, causing fermentation, bloating or discomfort, and even weight gain.
- Avoid drinking beverages with a meal, since this dilutes the body’s concentrated digestive juices, resulting in indigestion and weight gain. It is especially important not to use beverages to “wash the food down” prematurely into the stomach. If you desire to drink anything during a meal, it is best to sip warm water or perhaps a mild herbal tea.
- Chew foods well – especially meat and other hard-to-digest foods. Chewing is an important part of the digestive process.
- Keep meals simple – generally no more than 3 or 4 different foods.
- Raw foods should be eaten before cooked foods.
- Eat juicy foods prior to concentrated, solid foods.
- Eat more raw foods in summer, less in winter.
- Eat foods and beverages at room temperature, or warmer if cooked.



- With the exception of beans and rice, it is not advisable to retain “leftovers” for meals the following day, because they have no life force left in them after a few hours.
- Meals should be eaten in a peaceful environment, with only pleasant company. It is best not to eat while the mind is dominated by strong emotions such as fear or anger.
- Do not over-indulge at mealtime. As the internal organs of the body are cleansed and revitalized, and as we eliminate toxic “junk” foods from our diet, our digestive processes become much more efficient. Consequently, we can gain all of the nutrients our body needs with less total food intake.
- Avoid sleeping right after a meal, as that can cause sluggishness and weight gain. An ideal situation is to rest for 10-15 minutes after a meal and then go for a 10-15 minute walk.

Sprouts

Seeds are rich in nutrients. After all, they contain all of the nutrients that are necessary to create the initial shoot of a growing plant. But it is difficult for the human body to fully digest and assimilate the nutrients that are present within most seeds.

A good solution to this dilemma is to enable the seeds to germinate and sprout into small shoots. Such sprouts are much easier for the body to assimilate. And the process of sprouting alters the chemistry of the original seed – most notably, making it much less starchy. Also, as the seeds are exposed to sunlight in the later stages of the sprouting process, photosynthesis occurring within the plant creates significant quantities of chlorophyll, an important health enhancer. The sprouting of seeds also develops Vitamin A and Vitamin C in a form that is easily assimilated by the body.

Another advantage of sprouts is that they can be grown in a relatively small space. So even apartment dwellers can grow sprouts and enjoy watching the miracle of nature as tiny seeds germinate and grow into little plants. Various types of seeds for growing sprouts can be found in virtually all “natural” or “health” food stores. Grains and seeds that will sprout can also be found in agricultural supply stores, but often such seeds have been treated with anti-fungal or other chemicals that are hazardous to our health. So, as a general rule, it is wise to obtain seeds and grains for sprouting only from traditional food outlets, rather than from agricultural stores. There is a wide selection of books currently available that provide guidance on how to sprout seeds.

Raw Vegetable Juices

Fresh vegetables are perhaps the most important component of a healthy diet. They contain natural vitamins, minerals and other nutrients that are essential to our health and vitality. They also contain living enzymes that are required for the digestive, metabolic and assimilation processes within the digestive tract.

Enzymes are sensitive to heat. At temperatures above 118° F, they start to become sluggish, just as the human body becomes lethargic in a hot bath. At temperatures above 130° F, enzymes die. A dead enzyme cannot perform its crucial role in the digestive processes of the body.

The pros and cons of cooked food versus raw foods were discussed previously. Raw solid food requires many hours of digestive activity before its nourishment is available to the cells and tissues of the body. Cooked foods are more easily digested. But since cooking kills the enzymes, we are faced with a dilemma. Converting some of our raw vegetables into juices is a good way to accommodate this situation.

In contrast to the long period of time needed to digest raw vegetables, the nutrients of vegetable juices can be absorbed into the bloodstream in a matter of minutes, rather than hours. And the process of juicing, using any of a wide variety of kitchen juicers currently on the market, does not damage or compromise the enzymes or other nutrients in the vegetables.

There is another advantage that raw vegetable juices have over solid vegetables. Residuals of chemical fertilizers and pesticides that are assimilated into the vegetables reside primarily in the fiber of the vegetables. Since most of the fiber of the vegetables becomes a waste product in the juicing process, raw vegetable juices provide a way to derive the nutritious benefit of vegetables without ingesting harmful residual chemicals.

A certain amount of fiber is important to the digestive process, since it acts as a “broom” to help keep the intestinal tract clean. Consequently it is important to continue to include solid vegetables, cooked and uncooked, as a staple in our daily diet. Vegetable juices tend to consist of highly concentrated nutrients, so they should be introduced into our daily diet with appropriate caution.

If there is a downside to raw vegetable juices, it is probably the fact that the nutrients in the juice begin to break down fairly soon after the juicing process – in a matter of hours, rather than days. Consequently, it is important to drink vegetable juices reasonably soon after the juicing process. In busy households, in which time and convenience are at a premium, this can present a challenge.

Unhealthy Foods, Beverages and Cooking Processes

Meat

The *Oxford Vegetarian Study* was a 15 year research effort that began in Oxford, England in the early 1980's. A total of 11,000 volunteers participated in the study; 6,000 vegetarians and 5,000 non-vegetarians. The results of the study indicated that meat eaters are twice as likely to die from heart disease, have a 60% greater risk of dying from cancer and a 30% higher risk of death from other diseases

The American National Institute of Health, in a study of 50,000 vegetarians, found that the vegetarians live longer and also have an impressively lower incidence of heart disease, and a significantly lower rate of cancer than meat-eating Americans.

Researcher Rollo Russell writes in his *Notes on the Causation of Cancer*: “I have found of twenty-five nations eating flesh largely, nineteen had a high cancer rate and only one had a low rate, and that of thirty-five nations eating little or no flesh, none of these had a high rate.”

A major study conducted in California revealed that the cancer rate among Mormons, who are known to eat very little meat, was 50% lower than in the normal population. An even more comprehensive, 8-year controlled study on 50,000 vegetarians of the *Seventh Day Adventist* church in California, compared with the same number of non-vegetarians of the same sex and age, produced similar results as in *the Oxford Vegetarian Study*. The study, which was completed in 1966, found that members of the vegetarian group had an astonishingly low rate of cancer of all types, their life expectancy was significantly longer, and they suffered significantly less from cardiovascular disease than those in the control group.

In the same context, the “forced” vegetarianism of the Danes, due to the allied blockage of Denmark in World War I, led to a 17% reduction of mortality rates in the first year of meat rationing. Norway experienced a similar positive side effect from meat rationing during the years of World War II (1940-1945). There was an immediate drop in national mortality rates from circulatory diseases during the period of meat shortage. The rates returned to pre-war levels when the population resumed meat consumption.

In June 1961, the American Medical Association reported that a vegetarian diet could prevent 90% of our thrombo-embolic disease and 97% of our coronary occlusions. This means that by adopting a vegetarian diet, we would be able to almost completely eradicate heart disease.

Digestion of meat . . .

Let's consider the digestive process. At the heart of the problem lies our inability to properly break down meat protein into amino acids. In a carnivorous animal, unlike in a human, the main digestive work takes place in the stomach, not in the small intestine. Meat stays in their relatively short intestinal tract for only a brief period of time.

In a human, however, chunks of undigested meat pass from the stomach into the intestinal tract. Our small intestine, which is about 16-20 feet (5-6 meters) long, processes most natural foods within a matter of several hours. But if the food happens to be meat, it may stay in the intestinal tract for as long as 24 to 48 hours. By that time, much of it is putrefied or decayed. The rotting process results in the generation of the meat poisons *cadaverine*, *putrescine* and other toxic substances. These poisons begin to act as pathogens (causal factors of disease) in the body.

Since the remnants of undigested meat can be held in the large intestinal walls of humans for 20-30 years or longer, it is not surprising to find colon cancers to be so highly prevalent among meat eaters, but virtually non-existent among carnivorous animals and vegetarians. Colon cancer, in most cases, is just another name for constant poisoning through putrefying meat. While being digested, meat is known to generate *steroid metabolites* possessing *carcinogenic* (cancer-producing) properties.

The kidneys, which extract waste products from the blood, also suffer from the overload of meat poisons, consisting mostly of nitrogenous wastes. Even moderate meat eaters demand three times more work from their kidneys than do vegetarians. Generally speaking, young people may still be able to cope with this form of stress, but as they grow older the risk of kidney damage greatly increases.

A research study conducted in Germany showed that middle-aged people who consumed meat in the evening were more prone to suffer a heart attack during the next morning. Too many proteins entering the blood can thicken it and drastically cut oxygen supplies to the heart and other organs, such as the brain.

Medications and additives . . .

In his groundbreaking 1987 book, *Diet for a New America*, John Robbins discussed the inhumane and unhealthy ways in which animals are raised on contemporary “factory farms.” One of the areas of great concern is the prolific use of additives, pesticides, hormones, growth and appetite stimulants, tranquilizers and antibiotics that are employed in the rearing of animals for meat consumption.



A 10-year study of government data that was completed in 2003 found that approximately 30 million pounds of antibiotics are used in America each year. Of this amount, 25 million pounds are used in the raising of farm animals! According to a report by the FDA, the antibiotics *penicillin* and *tetracycline* alone save the meat industry \$1.9 billion a year. Yet the drugs may be breeding deadly antibiotic-resistant organisms in the consumer’s body.

One of the chemicals added to animal feed in the United States is the growth hormone *diethylstilbestrol* (DES). The FDA estimates that it saves American meat producers \$500 million annually. DES is highly carcinogenic and banned as a serious health hazard in 32 countries.

Unfortunately, the “farms” of an earlier era have become the “pharms” of the modern day agribusiness. There are over 2,500 drugs routinely given to animals to fatten them and to keep them alive. Most of the harmful chemicals are still in the animals at the time of death, and many other drugs are added after the animal has been slaughtered. These drugs will still be present in the meat when it is eaten. Unfortunately, the law does not require listing of the vast array of drugs added to the meat.

Meat contamination . . .

Research has shown that *all* meat eaters have worms and a high incidence of parasites in the intestines. This is hardly surprising given the fact that dead flesh is a favorite target for microorganisms of all sorts. A 1996 study by the U. S. Department of Agriculture showed that nearly 80% of ground beef is contaminated with disease-causing microbes. The germs and parasites found in meat weaken the immune system and are the source of many diseases. In fact, most food poisonings today are related to meat eating.

Fish . . .

Many of the issues related to red meat and poultry apply to fish as well. Fish raised in commercial fish tanks are subject to much of the same chemical contamination as animals raised on “factory farms.” And with the increasing pollution of our oceans, rivers and lakes, increasing levels of toxic chemicals and substances, such as mercury, are found in fish and shellfish that are harvested from the Earth’s natural bodies of water.

Sugar and Sweeteners

The consumption of sugar and artificial sweeteners has increased dramatically in recent years. If one were to plot the increase of sugar consumption year by year alongside the increase in obesity, immune disorders, blood-sugar disorders and a variety of other ailments, one would find similar growth curves. Sugar and sweeteners are undoubtedly not the only reason for

declining health trends, especially among young people, but they are certainly a major contributor.

Sugar

Refined sugar is rapidly absorbed into the bloodstream. The resulting increase in blood sugar level causes the pancreas to secrete insulin in an effort to restore balance. It also stimulates the adrenal glands to secrete adrenalin in an effort to remove the sugar from the bloodstream. Adrenalin levels can increase by as much as 4 times, causing a stress response sometimes referred to as an “adrenalin rush.” Afterwards, the blood sugar level drops below normal, which often leads to a state of depression, lethargy and irritability, sometimes referred to as the “sugar blues.” In the long term, this can lead to various blood sugar disorders, such as diabetes and hypoglycemia.

Refined sugar lacks vitamins and minerals and must draw upon the body’s micro-nutrient stores in order to be metabolized. When these stores are depleted, metabolization of fatty acids and cholesterol is impeded, causing obesity due to higher fatty acid storage and higher cholesterol levels.

In the past 20 years, sugar consumption has increased from 26 pounds to 135 pounds per person per year. Obviously, only a very small percentage of this is added to our foods and beverages at the dinner table in the form of white granular sugar with which we are all familiar. Most of it is insidiously added to processed foods and beverages by food processing companies. Sugar may be found on food package labels under a variety of names such as Glucose, Fructose, Sucrose, Galactose, Maltose and Lactose.

Aspartame

As more and more people have become aware of the health hazards of sugar, there has been a tendency to look for sugar substitutes. The most widely used artificial sweetener today is aspartame, known under trade names such as NutraSweet, Equal, Spoonful, Equal-Measure, Benevia and NatraTaste. Since the patent on it has now expired, it will undoubtedly show up on the market under a variety of new trade names.

The approval in the U.S. of aspartame for use in beverages and dry foods is one of the most disgraceful chapters of political influence, payoffs and corruption in the history of the Food and Drug Administration (FDA). As a member of the National Soft Drink Association, the Coca-Cola Company opposed FDA approval of aspartame for beverages. Their objections, running to several pages published in the Congressional Record of May 7, 1985, said aspartame is uniquely and inherently unstable and breaks down in the can. It decomposes into formaldehyde, methyl alcohol, formic acid, diketopiperazine and other toxins. In a study on 7 monkeys, 5 had severe seizures and one died – a casualty rate of 86%. In spite of this testimony, after aspartame was approved by the FDA, the Coca-Cola Company introduced Diet Coke, which is laden with aspartame. The story has all too many familiar parallels with the tobacco companies that, in spite of their full knowledge of the severe health risks of smoking, continue to manufacture and promote the use of cigarettes.

The European Common Market has at least banned aspartame for use in all children’s products.

Saccharin

Saccharin, the Latin word for “sugar,” is a chemical that was discovered in 1879, and was the first artificial sweetener. It is 300 times sweeter than sugar and does not metabolize in the body, so it has no calories. Saccharin, which is derived from coal tar, has a very controversial history. In 1907 it was banned for use in the United States by the forerunner of the FDA because of health concerns. Due to industry pressure, it has been reinstated and then banned again several times since then.

Saccharin continues to be available as little pink packets of Sweet’N Low in most restaurants, and is still used as an artificial sweetener in an array of food products. For example, Diet Coke and Diet Pepsi use a blend of saccharin and aspartame, as does Tab.

Healthy Sweeteners

A bit of sweetness is not out of place in a healthy diet so long as it is in balance with other foods. There are several natural sweeteners that have few, if any, harmful side effects. But just as sweet fruits and fruit juices need to be consumed in moderation, and in appropriate relationship to other types of foods, the same is true of the following natural sweeteners.

Honey

Honey is the oldest known natural sweetener, with references to it dating back virtually as far as recorded history. As we know, it is produced by bees from the nectar they collect from the blossoms of plants and trees. Most honey is gently heated to enable filtering out of the wax and other agents. But the temperatures are kept low (less than 96° F) in order to preserve its enzymes and other nutrients. Such “raw” honey tends to crystallize over a period of time, so much of the honey found in grocery stores and supermarkets has been pasteurized to prevent crystallization. Unfortunately, this destroys the enzymes and many of its inherent nutrients. Therefore, it is much better to find a local source of raw honey. Honey contains various disease-inhibiting antioxidants, similar to some common sweet fruits.

Xylitol

In spite of its ominous-sounding name, Xylitol is a natural carbohydrate that is found in fibrous plants and vegetables, including birch and other hardwood trees, berries, almond hulls and corncobs. It has been approved for use as a sugar substitute in over 35 countries. Xylitol is a sugar alternative that looks and tastes like real sugar, but contains less than 40% of the calories. Xylitol enjoys wide acceptance in Japan and the Scandinavian countries. In Russia it has been used for decades as a sweetener for diabetics, and in Germany in solutions for intravenous feeding. In the United States, Xylitol is approved as a direct food additive for special dietary uses. Numerous clinical and field studies performed over the past 30 years have demonstrated the safety and efficacy of Xylitol as a healthy alternative to sugar and artificial sweeteners. It can be purchased in bulk form from health food stores and many online sources.

Stevia

Stevia is an herb, native to Paraguay, that has been used as a sweetener and flavor enhancer for centuries. The Guarani Indians had known about the unique advantages of this plant long before the arrival of the Spanish invaders. Prior to 1900, stevia had grown only in the wild, and consumption was limited to those having access to its natural habitat. With the

gradual introduction of stevia as a commercial crop, it eventually began to attract attention throughout Latin America and beyond. Stevia is usually marketed in the U.S. as an extract, either in liquid or powder form. It can be found in most health and natural food stores.

Other Natural Sweeteners

There are other sweeteners that deserve consideration. Most “natural” sweeteners are certainly preferable to refined sugar or chemical sweeteners.

Date sugar is a powder made by grinding up dried dates, so it enjoys the same health benefits as dates. However, date sugar does not dissolve well in liquids.

Pure maple syrup is made from the sap of sugar maple trees. Although it has a wonderful flavor, the boiling process used to thicken it damages many of its natural nutrients.

Unhealthy Beverages

There are many types of processed beverages widely available that are not healthy for the body. We will focus on three categories of beverages that have the most devastating effects on human health: soft drinks, alcoholic beverages and coffee.

Soft Drinks

The caffeine contained in most soft drinks (Mountain Dew, Coke, Pepsi, etc.) and most power drinks not only stimulates and stresses the central nervous system and immune system, but also acts as a powerful diuretic. For every can of cola you drink, you relinquish up to three times as much water – water that your body cannot afford to give up without suffering some sort of damage. Caffeine removes water from the body faster than the body can absorb it again, thereby generating constant thirst. People who frequently drink soft drinks are never able to really quench their thirst because their bodies continually run out of cellular water. There are some people who drink as many as 10-15 cans of cola a day. Eventually, they tend to confuse their body’s never-ending thirst signal with hunger, and they begin to overeat, causing excessive weight gain.



Unfortunately, caffeine is not the only culprit in soft drinks. There are approximately 8 to 9 teaspoons of sugar in a 12-oz. can of Coke, Pepsi or other well-known soft drinks. Because sugar is absorbed into the bloodstream so quickly, the blood sugar level rises dramatically. This causes the pancreas to secrete insulin in order to compensate for the excessive blood sugar. And it stimulates the adrenal glands to secrete adrenalin in an effort to remove sugar from the bloodstream. Adrenalin levels can increase by as much as four times normal, creating a state of “fight or flight” stress response within the body. Many people experience this as a boost of energy that they believe they are getting from the soft drink, but it is anything but that. This stress reaction also increases the production of both cholesterol and cortisone. Cortisone inhibits the immune functions, making one much more vulnerable to colds, the flu and other disorders. Afterwards, the blood sugar level drops below normal, which often leads to a state of depression, lethargy and irritability, sometimes referred to as the “sugar blues.” In the long term, this can lead to various blood sugar disorders, such a diabetes or hypoglycemia.

Many people, aware of the adverse effects of sugar, opt for so-called “diet” drinks, such as Diet Coke or Diet Pepsi. Unfortunately, this can lead to even worse health complications. The sweetener that is most commonly used in diet soft drinks is aspartame. The health risks related to aspartame have already been discussed.

Alcoholic Beverages

When a person drinks an alcoholic beverage, about 20% of the alcohol is absorbed in the stomach, with the remaining 80% being absorbed in the small intestine. The alcohol then enters into the bloodstream and circulates throughout the body. As alcohol enters the nerve cells within the brain, it interferes with communication between the nerve cells and all other cells. The excitatory nerve pathways are suppressed, while the inhibitory pathways are stimulated. This has the effect of causing sluggishness of the body, which is characteristic of the behavior of someone who is under the influence of alcohol.

Depending on the level of alcohol within the bloodstream, certain centers of the brain are affected more than others. The first center to be affected is the cerebral cortex, which is why rational thinking tends to become blurred. As the alcohol level rises, it begins to affect the limbic system, involving our emotions and autonomic nervous system. The next center in the brain to be affected is the cerebellum, which among other things, affects our spatial orientation. This is why intoxicated people have difficulty walking in a straight line. And, if the alcohol level continues to increase, the next center to be impacted is the hypothalamus and pituitary gland, which together control the entire endocrine system of the body. And finally, excessive alcohol in the bloodstream reaches the medulla (brain stem), acting as a depressant on the entire central nervous system.

The body’s natural defense mechanisms attempt to eliminate alcohol from the bloodstream in three different ways:

- The kidneys eliminate about 5% of the alcohol through the urine.
- The lungs eliminate about 5% through the breath, which can be detected through a breathalyzer device.
- The liver chemically breaks down the remaining alcohol into acetic acid.

As discussed earlier, the liver has a wide range of responsibilities related to keeping the body healthy. It functions according to a system of priorities, giving its attention to the most dangerous threats to the body first. Since alcohol is so toxic to the body, it assigns a high priority to the task of breaking it down so that it can be eliminated from the body. But while it is doing this task, other functions of the liver must take a back seat and wait their turn. So regular consumption of alcoholic beverages inhibits the ability of the liver to carry out its normal health-maintenance functions. Excessive consumption of alcoholic beverages over a long period of time usually leads to alcoholic liver diseases, such as hepatitis and cirrhosis. And alcohol, like caffeine, severely dehydrates the body. In fact, an alcoholic “hangover” is the result of dehydration of the cells of the brain.

Coffee

The primary health risk associated with coffee is its high caffeine content – about 170 milligrams in a regular cup of coffee. Caffeine is a strong diuretic, and the manner in which caffeine tends to dehydrate the body has already been discussed. And, coffee is highly acid-forming, which means that it draws heavily on the alkaline reserve within the body in order to maintain a safe acid/alkaline balance.



Studies have shown that in North America, approximately 85% of adults drink 3 to 5 cups of coffee per day. Since it is a \$90 billion industry, concerted efforts are made to downplay the health risks associated with coffee.

One of the incentives for drinking coffee is its perceived ability to serve as a stimulant when one's energy level starts to drop. But since coffee has no real energy of its own, just stimulants, where is the stimulated energy coming from? Obviously, the body is providing it. Stimulants are nerve toxins that trigger a powerful defense reaction in the body. This immune response is what one experiences as a boost in energy when one drinks a cup of coffee. So in reality, the energy boost that one experiences is actually an energy loss for the body. Repeated stimulation by drinking coffee through the day tends to deplete the energy reserve within the body.

If caffeine is the primary ingredient in coffee, and coffee is harmful to health, then what about decaffeinated coffee – does this eliminate the health risks? A recent study was conducted that involved three groups of people: one group drank regular coffee, another group drank decaffeinated coffee, and a third group drank no coffee. The results were reported at a November, 2005 meeting of the American Heart Association. The primary difference noted among the three groups was that those who drank decaffeinated coffee developed a higher level of blood fat associated with harmful LDL cholesterol.

In the October, 2005 issue of *American Journal of Epidemiology*, Danish researchers reported the effects of coffee on pregnant women. The study found that women who drank 4 to 7 cups of coffee daily while pregnant had a 33% higher risk of fetal death. Further, they found that pregnant women who drank 8 or more cups of coffee a day had a 59% greater risk of fetal death.

Microwave Cooking

Microwave cooking technology was originally developed in Nazi Germany in the early 1940's. The motivation for the development related to logistics of the war effort. If food for troops being deployed to distant locations could be cooked easily and quickly with microwave energy, it would eliminate the need to transport fuels needed for conventional ovens.

At the conclusion of the war, both the Russians and the Americans obtained microwave cooking equipment along with data from tests that had been conducted by the Germans. In Russia, extensive testing related to microwave cooking began about 1957. As the tests ensued, the mounting volumes of data related to the negative impact on human health were so disturbing that in 1974 Russia banned the use of microwaves for cooking in that country, and issued an international warning about its dangers.

The April 1992 *Journal of Pediatrics* reported that researchers at the Stanford University Medical Center discovered significant changes in human breast milk that was microwaved just enough to warm it. The changes included the destruction of 98% of its immunoglobulin-A antibodies and 96% of its liposome activity, which inhibits bacterial infections.

In 1991 there was a lawsuit in Oklahoma concerning a woman who had undergone a routine hip surgery. After the surgery, a blood transfusion was administered to her. Blood for transfusions is routinely warmed, but not in microwave ovens. In this particular case however, the nurse, unaware of the risks, *did* warm the blood in a microwave oven. The patient died 90 minutes after the transfusion. It seems obvious from this case that microwave ovens are doing something to substances other than warming them.

The concerns related to microwave cooking fall into 4 categories:

- The effects of microwave radiation on people who are in the vicinity of the microwave oven while it is being used.
- The potential negative impact on the nutritional value of food that has been cooked in a microwave oven.
- The potential of carcinogens and other health-endangering agents being created within the food as a result of being bombarded by microwave energy.
- The effects on human health as a result of eating food that has been cooked in a microwave oven.

Microwave Radiation

The dangers of microwave radiation are well known. The hazards first became apparent in conjunction with the development and use of radar, which utilizes bursts of microwave radiation at very high power levels. Until the effects were better understood, and appropriate precautions taken for workers in the vicinity of radar systems, microwave radiation resulted in numerous cases of severe illness and even death.

Although radiation standards have been established for the manufacture of microwave ovens, nobody really knows for certain what levels of radiation can be considered "safe." One thing that *is* known about the harmful effects of microwave radiation is that they are cumulative. So radiation levels that may be relatively "safe" based on infrequent or occasional use, may not be at all safe for someone who uses a microwave oven on a daily basis.

The intensity of microwave radiation varies exponentially according to the distance from the source. Unfortunately, microwave ovens tend to be located in kitchens based on convenience, rather than safety. Oftentimes this means they are located at eye level, resulting in the greatest radiation exposure to the head. This is particularly disconcerting in view of the fact that one of the common effects of excessive microwave radiation reported by the Russians is a degeneration of brain circuitry and increased levels of disturbance in alpha-, delta-, and theta-wave signal patterns.

The Hertel-Blanc Study

Dr. Hans Hertel worked for many years as a food scientist with one of the major Swiss food companies that conducts business on a global scale. In 1991, he, along with Dr. Bernard Blanc of the University Institute for Biochemistry, conducted a quality clinical study to determine the effects of microwave cooking on food, and the resulting effects on the physiology of those who consumed the food.

The results of the study were sufficiently alarming such that in 1993, a powerful Swiss trade organization filed for, and obtained a “gag” order to prohibit publication of the findings. Finally, in 1998, a Swiss court determined that the gag order prohibiting Hertel from declaring that microwaved food is dangerous to health violated the right to freedom of expression. The order was reversed and the Swiss government was required to pay compensation.

Essentially, the Hertel-Blanc study found that microwave cooking significantly changes the food’s nutrients, resulting in changes in the blood that could cause deterioration in the human body. More specifically, the study found a marked increase in the leukocytes in the blood. Leukocytes are of significant concern because they are often signs of pathogenic effects on living systems, such as poisoning and cell damage. The study also showed a decrease in white blood cells after consuming food cooked in a microwave oven.

Summary

Microwave ovens are found in more than 90% of the kitchens in the United States. Virtually every package of frozen or processed food that needs to be heated has instructions for microwave use. Even though there are growing concerns over the increasing incidence of cancer across a wide spectrum of the population, and a proliferation of health-related issues in young people, there has been an alarming void in microwave research conducted in this country. In view of the data from other countries, this void seems more than irresponsible.



Obviously, it is up to each of us to make our own decisions about the use of microwave ovens for cooking our daily meals. Perhaps we can blame the Nazis for inventing microwave ovens, but we can only blame ourselves if we continue to use them in light of the potential risks. Some health conscious people who have decided to discontinue using them for cooking have found a creative use for them – unplug them and use them as a place for storing your vegetarian cookbooks or for growing health-enhancing sprouts!

Healthy Lifestyle

Lifestyle is at least as important to our health as internal hygiene and nutrition. We all know the importance of exercise – some people get sufficient exercise in the course of their daily jobs, but most of us with a more sedentary lifestyle need to incorporate additional exercise in order to maintain a healthy body.

Adequate rest and sleep are also crucial factors. We may be able to go for short periods of time with minimal sleep, but in the long run, we simply cannot sustain our health on a diet of inadequate or irregular sleep habits.

The negative effects of smoking on our health have received so much attention during the past decade that there is no need to dwell on these here. It is clear by now that the detrimental effects of smoking are caused not just from the tobacco, but also from a long litany of chemicals that are added to cigarettes which drug the body, creating addiction. Simply stated, smoking and good health are incompatible.

Perhaps less obvious are the effects of our thoughts and emotions on our health. Stress, anger, resentment and frustration all interfere with the healthy functioning of our body's organs and systems. On the other hand, love, joy, happiness and creative expression all have a positive impact on our health and well-being. Let's explore these subjects in more detail.

Exercise

Exercise is an essential part of a healthy lifestyle. Some of the reasons why exercise is important are obvious; others less so. Following are some of the more important considerations:

Muscle Tone

Maintaining muscle tone and a physically attractive body is undoubtedly the most important motivator for most people when it comes to exercise. We know that muscles tend to atrophy if they are not regularly used. So for most of us, maintaining our muscles in good working condition and our body in good physical appearance is an important part of a healthy self-image.

Skeletal Mobility

The joints in our skeletal form need movement in order to maintain a full range of flexibility. The exercising we do to maintain muscle tone normally takes care of this need without special attention. However, certain types of stretching routines, such as yoga, can be very beneficial in maintaining an agile body.

Aerobic Exercises

Aerobic exercise uses large muscle groups in a rhythmic and continuous manner to elevate our heart rate and breathing for a sustained period of time. This can be in a simple form such as walking, jogging or swimming; or it can take a more rigorous form such as step, spin or dance routines found in many workout programs. Accelerated breathing that accompanies aerobic exercise brings more oxygen into the bloodstream. And the increased heart rate maximizes the flow of blood to all parts of the body.



Perspiration/Detoxification

The skin has an important role in eliminating toxins from the body through the sweat glands. So any exercise that causes a person to break into a sweat can be helpful in this regard. As the body generally becomes detoxified through the cleansing processes discussed earlier, and

through an improved diet, the need for elimination of waste products through the sweat glands becomes less imperative, but still important.

Lymphatic System

The lymphatic system, which drains toxic and noxious substances from the connective tissues of the organs and muscles, depends on the daily movement of all the parts of the body to function properly. Unlike the blood, which has a heart to circulate it around the body, the lymph fluid has no such direct pumping device. The lymphatic system relies heavily on our breathing. When the muscle responsible for the breathing action of the lungs (diaphragm) extends into the abdomen, it exerts great pressure on the intestinal lymph vessels, thereby squeezing their contents. This forces the lymph to move through the lymph ducts. Thus, each inhalation and exhalation acts as an indirect pump for the lymphatic system. Shallow breathing that accompanies a sedentary lifestyle has a detrimental effect on proper lymph drainage. Exercise, however, can greatly improve lymphatic functions, thereby preventing a multitudes of diseases.

Cerebrospinal Fluid System

The cerebrospinal fluid circulates within the spinal column and the space between the inside of the skull and the surface of the brain. It is a primary conductor for life energies, or “chi”, within the body. Like the lymphatic system, the cerebrospinal fluid system depends on the movement of the body, particularly deep breathing, to circulate its fluid.

Emotional Clearing

Emotions that cause tension, such as anger, fear or frustration, can become lodged in the muscular structure of the body. Regular physical exercise is an important aid to clearing these energies from the body before they create health problems. Massage also can be of great benefit in this regard.

Body-Mind-Spirit Integration

Some forms of exercise from Eastern traditions, such as Yoga, Tai Chi and Qigong, are designed to incorporate movement, breathing and mental focus in a way that promotes harmonious integration of body, mind and spirit. Ideally, they are done in a natural setting that can deepen our connection with the world of nature that surrounds us. But even if done in an indoor environment, they can provide needed exercise for our body in a way that nurtures all aspects of our beingness.

When and How Much?

The optimum type and amount of exercise naturally varies according to age, body type, and a variety of other factors. A 70 year old person does not need the same type or amount of exercise as a 20 year old.

It is best not to exercise at more than 50% of your capacity, whatever that means to you. The purpose of exercising is not to prove to others how capable you are, but to derive personal benefit and satisfaction from it. If you are able to run for 30 minutes before you are tired, then make the choice to run only for 15 minutes. Getting tired during exercising defeats the very purpose of exercise. Feeling refreshed, revitalized and energetic afterwards indicates that the

workout has been successful. In due time, your capacity for exercise will naturally increase on its own.

Stop exercising when you feel the need to breathe through the mouth. Once you are forced to breathe through the mouth, rather than through the nose, you have gone beyond the 50% threshold of your capacity for exercise at that time. This is a sign that your body has moved into the adrenaline-breathing mode, which uses up your basic energy reserves and depletes cellular oxygen. You have reached your limit when you feel your heart pounding excessively, when you begin to sweat profusely, or when your body shakes. In that case it is good to finish off with a short period of walking and breathing normally. The basic rule is to always breathe through the nose and not through the mouth, and to exercise to the point of perspiration once a day.

Additionally, it is best to exercise during daylight hours. Vigorous exercise in the evening hours is not healthy because the body needs to slow down to prepare itself for a restful and rejuvenating sleep. Never exercise just before or after a meal, as this interferes with the digestive process, and can cause indigestion. However, walking leisurely for 15 minutes after meals works as a good digestive aid. Always drink water before and after exercising to prevent the blood from thickening and the cells from becoming dehydrated.

Daily Biological Cycles

The biological processes within our bodies are synchronized to the daily planetary cycles of light and darkness. By understanding the nature of these cycles, and adjusting our daily routines accordingly, we can better support our body's natural biological functions. The ancient science of Ayurveda divides the daily cycles into six 4-hour segments. Even though there are variations in the ratio of light to darkness as the Earth moves through its annual cycle around the Sun, the timing of the body's internal activities remains relatively consistent throughout the year.

6:00 AM to 10:00 AM

The first cycle begins with the "birth" of a new day. Let's assume that sunrise occurs at 6 am. About an hour before sunrise nature starts to awaken, becoming increasingly active as the sun rises to higher positions. Likewise, during this first segment of the day, your body is still a bit slow, but gradually gathers strength and stamina.

At around 6 am the kidney glands secrete the stress hormones cortisol and adrenaline to get your body going, similar to a battery starting an engine. This is also the time when the sex hormones in the body reach their peak levels. And, provided your eyes are open to see the natural light of the day, the brain increases its production of the powerful hormone serotonin, which helps you start your day on a positive note.

10:00 AM to 2:00 PM

By 10 am, the energy of the sun begins to increase, reaching its peak levels by about noon. During this 2-hour period, we are at our most alert and cognitive best. At noontime, the digestive energies reach their peak efficiency, and the digestive juices (bile, hydrochloric acid, enzymes, etc.) are profuse and concentrated. For this reason, it is best to eat your main meal of the day between 12 pm and 1 pm. Provided the food you eat is wholesome and nourishing, the digestive process will provide you with the energy and vitality you need during the remainder of the day.

2:00 PM to 6:00 PM

During this period, digestion of the noon meal continues. This segment of the day is conducive to efficient mental performance due to increased nerve cell activity. This makes it a good time to absorb and retain information. Studies conducted at the University of Wales showed that students who had afternoon or early-evening classes performed better in exams than those who had morning classes.

If there have been ongoing problems of poor intestinal absorption and unbalanced metabolism, they would likely become more pronounced at this time. Such an imbalance may manifest as increased irritability, nervousness and cravings for sugary foods or other stimulants such as tea, coffee, soft drinks, chocolate or cigarettes. Most alcoholics will start looking for their first drink during the latter part of this period.

6:00 PM to 10:00 PM

As the energies from the sun begin to fade, the physiological activities of the body such as digestion and metabolism begin to slow down. Those who are in tune with their body cycles usually feel inclined to take it easy with the arrival of the evening hours. For these reasons, it is best to eat only a light dinner, preferably at around 6 pm. This gives your body enough time to digest your food before bedtime. Research has found that the most important digestive enzymes are no longer produced after 8 pm. Eating a meal later in the evening (after 7 pm) will, therefore, not be properly digested and will decompose while it is still in the stomach.

Most people begin to feel sleepy or drowsy between 9 pm and 10 pm. This sleepiness or drowsiness results from the secretion of a natural tranquilizer that the brain makes when it wants you to go to sleep. According to researchers from Harvard Medical School, most of the brain cells are “turned off” during sleep by some chemical signal sent out by a group of cells located in the hypothalamus, which is considered to be the brain’s brain. This “turning off the lights” assists us in going to sleep.

10:00 PM to 2:00 AM

This is a crucial period of time during which most of the body’s energy is used for cleansing, rebuilding and rejuvenating the body. The liver receives most of the energy and conducts an astonishing range of activities. These include the supply of vital nutrients to all parts of the body, breaking down of noxious substances and keeping the blood clean. In addition, the liver cells produce bile at this time, which is needed to digest food, particularly fats, during the following day. Another important function of the liver during this time is to synthesize proteins, which serve as the main building blocks of cells, hormones and blood constituents.

Why Proper Sleep is So Important for You!

The liver requires all the energy it can get to fulfill these and many other responsibilities. This can only happen sufficiently, though, if you sleep during this time period. If you use up the nighttime energy for eating or for mental and physical activities, the liver is left with too little energy to do its extremely vital work. The kidneys also need energy during this time period to filter the blood plasma, and keep the body fluids balanced and blood pressure normal.

Although the brain makes up merely 2% of our body mass, it normally contains more than 25% of the body's entire blood supply. However, during this phase of the night, most of the blood located at the back of the brain moves into the liver for purification. If you are mentally or physically active at this time, the liver does not receive enough blood to work with, so it cannot cleanse the blood sufficiently. This results in the accumulation of toxic material in the blood stream. If toxins keep circulating in the blood, they will settle in the interstitial fluid (connective tissues) of organs and systems, thereby raising acidity and damaging them, including the liver itself. High blood toxicity can lead to secretions of stress hormones, brain fog, and injured capillaries, arteries and heart muscles. Most heart disease is the result of a poorly performing liver that is unable to remove all toxic, noxious substances from the blood on a daily basis. If we do not give the liver the energy it needs to conduct the most basic physiological activities, we sow the seeds of illness throughout the body.



Respiration is an important part of the cleansing and rejuvenation process, with a significant percentage of the body's waste materials being eliminated through the lungs. This underscores the importance of sleeping in a room with ample ventilation.

Sleep can be divided into two main parts – before-midnight and after-midnight. For adults, the most important processes of purification and renewal occur during the two hours of sleep before midnight. This period involves deep sleep, often referred to as “beauty sleep.” It typically lasts for about an hour, from 11 pm to midnight. During this period, you enter a dreamless state of sleep where oxygen consumption in the body drops considerably. This results in profound physical rest and relaxation. The benefit to your body of this single hour of deep sleep is approximately equivalent to that derived during the three hours following midnight, when the oxygen consumption rises again.

Growth factors, commonly known as growth hormones, are secreted profusely during the hour of deep sleep. These powerful hormones are responsible for cellular growth, repair and rejuvenation. People age faster if they don't produce enough growth hormones. The latest “fashion” in the beauty market is to consume synthetic growth hormones, which create remarkable rejuvenation results, but which also can have devastating side effects, including heart disease and cancer. On the other hand, if the body makes natural growth hormones at the right time and in the correct amounts, as happens during deep sleep, they can help keep the body vital and youthful.

Deep sleep virtually never occurs after midnight and it usually comes only if you go to sleep at least two hours before midnight. If you routinely miss out on deep sleep, your body and mind tend to become overtired. This triggers abnormal stress responses that initiate secretions of stress hormones such as adrenaline, cortisol or cholesterol (yes, cholesterol is a stress hormone that rises with stress!). Once the body's energy reserves have been depleted, chronic fatigue results. Fatigue can be considered a major contributing factor in today's health problems.

Doctors at the University of California at San Diego have found that losing a few hours of sleep not only makes you feel tired during the following day, but also can affect the immune system, possibly impairing the body's ability to fight infection. Since immunity diminishes with tiredness, your body is unable to defend itself against bacteria, microbes and viruses, and cannot cope with the build-up of harmful substances in the body.

2:00 AM to 6:00 AM

The primary focus of the body during this segment of the daily cycle is on moving the body's waste products from the liver, cells, intestines and other areas of the body towards the organs and systems of detoxification and elimination. The lymphatic system neutralizes harmful microbes, metabolic wastes, cellular debris, worn out cells and cells damaged by disease. The rectum forms fecal matter, which triggers a bowel movement, and the kidneys pass urine to the bladder, which induces urination. The skin also receives waste products that begin to surface at this time; hence, the importance of washing or showering in the morning.

To be able to fully support efficient waste removal, the body needs to be awake and in a vertical position. Therefore, it is preferable to awaken and be out of bed slightly before sunrise. Young children and early teenagers have a slightly different melatonin cycle, and may require an extra hour of sleep in the evening and again in the morning.

Summary

Structuring our daily lives in a way that honors our body's natural cycles is one of the most important things we can do to enhance our health and well-being. There are inevitably situations that arise in life that necessitate making exceptions to our normal daily cycle. But the more consistently we maintain a regular pattern of living, the better we are able to support our body's natural processes of health and regeneration.

Our Body's Response to Stress

Stress is one of the greatest deterrents to health and well-being. Virtually all of us experience stress in our life from time to time, and our bodies are designed to respond accordingly. For example, if we encounter physical danger, the "fight or flight" stress responses within our body are designed to help us protect ourselves from that danger. So long as experiences of this nature are infrequent, our body is generally able to restore its normal equilibrium without any significant long-term effect on our health.



The more damaging situations are those to which we are exposed on a recurring basis, such as a stressful job, an inharmonious relationship or constant worries about finances. Even watching the daily television news programs tend to create levels of stress within us as we react emotionally to situations that seem tragic or unjust.

Growth or Protection

In his book, *The Biology of Belief*, Dr. Bruce Lipton discusses the concept of "growth or protection". Essentially this concept illustrates how the physiological processes within our body are dramatically affected by fear and stress.

The growth center of our body is the "visceral" area, which includes the digestive system, and organs such as the lungs, heart, liver, and kidneys – all of the organs that play a key role in the sustenance and regeneration of our body. The protection aspect of our body involves two facets: *internal* protection and *external* protection. The primary system with responsibility for

internal protection is the immune system. Our external protection involves the somatic system, such as our arms and legs that enable us to respond to a “fight or flight” situation.

Under normal circumstances, if our life situation is reasonably peaceful and we feel a sense of security, our body will be in a state of growth most of the time. However, if we are suddenly confronted with a dangerous situation, such as an earthquake, our body immediately shifts to a state of protection. This shift is initiated by our nervous system, working through our endocrine glands.

When our body shifts from a state of growth to a state of protection, we are impacted in three primary ways:

- The flow of blood is constricted in our visceral area, and re-directed to our somatic system (arms, legs, etc.). Consequently, the functioning of our life-sustaining systems, such as our digestive system, is throttled back to a minimum.
- Since the threat in the example of an earthquake is an *external* threat, rather than an *internal* threat, the immune system is essentially put on temporary hold in order to conserve energy and make it available for somatic activity. This is analogous to the situation involving a modern commercial airplane – just prior to heading down the runway for takeoff, the pilot turns off auxiliary systems such as the air conditioner, so that all of the thrust of the engines is available to support lift-off.
- The blood flow in the brain is re-directed from the forebrain, where our rational thinking takes place, to the hindbrain, which involves our reflex responses. Since it is the frontal lobes of the forebrain that support rational thinking, when we shift into a state of protection, our ability to think logically is impaired. We frequently hear stories of experienced hikers that become lost in bad weather. If fear and panic overtake a hiker, they often do not make rational survival decisions. For example, they may continue to hike aimlessly as fast as they can to the point of exhaustion, rather than using their energy to build a shelter in which to wait out the storm.

If our body remains in a state of protection for a relatively short period of time, little damage is done to our internal growth-related processes. However, if we are regularly dealing with stressful situations, the impact on our health can be very significant. For example, we know that under conditions of stress or turmoil, we frequently suffer from indigestion. We also know that during periods of stress, we are more likely to come down with a cold, or experience other aches and pains within our body.

Conclusion

Living a life of health and vitality is our natural birthright. It has been our intent to provide information about how each of us can work with the natural processes of our body to cleanse the accumulated residues from our various organs and systems, and to make wise choices about the foods we eat. We have also provided examples of how our health is impacted by our thoughts, emotions and lifestyle.

Although our focus has been on working with the natural processes of our bodies, we certainly do not want to imply that conventional Western medicine is of no value. It is difficult to imagine

what our world would be like without emergency rooms to deal with trauma such as physical injuries.

Our hope is that you will be inspired to learn more about how your body functions so that you will be able to make enlightened decisions related to your health and well-being. We invite you to take your health into your hands and feel empowered by the wealth of life-nurturing choices at your fingertips.

Recommended Resources

The information in this module has drawn heavily on books and teachings of Andreas Moritz, who is world renown in the field of alternative health. We would especially recommend his following books, all of which are available through his website: www.ener-chi.com .

- *Timeless Secrets of Health & Rejuvenation* (This is his most comprehensive book on alternative health.)
- *The Amazing Liver & Gallbladder Flush*
- *Cancer is Not a Disease! . . . It's a Survival Mechanism*
- *Heart Disease No More!*
- *Ending the AIDS Myth*
- *Diabetes No More!*
- *Feel Great, Lose Weight*
- *Heal Yourself with Sunlight*
- *Simple Steps to Total health*