

HEALTH ISSUES

1. THE OXYGEN THEORY

Did you know that your body contains 75 trillion cells that provide the energy needed to carry out every brain function, body movement, organ function, as well as all other needs for your body's systems. Each cell needs two things to produce energy – nutrients and OXYGEN.

The following problems can result from cell "Oxygen Starvation:"

- Anxiety
- Blood Chemistry Disturbance
- Cardiac Symptoms
- Confusion
- Dizziness
- Fatigue
- Headaches
- Immune Dysfunction
- Inflammation
- Intestinal Problems
- Itching
- Respiratory Disorders
- Shortness of Breath
- Sleep Disorder and Insomnia
- Stress and Depression
- Ulcers

Dr. Shizuo Inoue, former Chairman of Japan's Oxygen Health Association, spent decades researching the relationship between oxygen levels in the body and the quality of human health.

"My research has convinced me that lack of oxygen is the root of most or perhaps even all disease."

-Dr. Inoue

A daily routine health maintenance program is very important to maintain good health. After all, it's certainly better to avoid a health crisis than to treat one.

Maintaining a healthy body requires the effective intake and distribution of oxygen from the atmosphere. Blood hemoglobin transports oxygen deep into the body tissues so it can diffuse into the cells. Thus, the human body is a highly complex, precision chemical factory.

Metabolism takes place only when oxygen is drawn into the body's systems, which generate energy to perform their vital functions and eliminate waste by-products. In fact, residual waste products in the body indicate an insufficient supply of oxygen. In order to stay healthy and fit, there must be a constant balance between oxygen demand and its supply.

2. OXYGEN-EFFICIENT THERAPEUTIC MASSAGER

At one time it was suggested that the best way for you to re-energize after a long workday was standing upside down. Theoretically, this is a good idea because after a whole day of work, all your internal organs begin to droop. If you stand upside down, your internal organs reverse to their original position. The returning circulation of blood and lymph will accelerate and reduce the stagnation in the lower part. Furthermore, the blood supply in your brain will be increased, so you experience a clearer mind and less fatigue. The problem is most people do not enjoy standing upside down.

When you are lying on a flat surface, your neck and waist are naturally elevated. When you are fatigued and then try to sleep in a bed, your body will ache because your lower back cannot touch the bed's surface. You'll also notice that only the concave parts of your body (neck and waist) have the ability to rotate.

If you observe animals or sea creatures, you'll notice a serpentine movement when they walk, run or swim. For example, you notice that a fish's tail gently swings back and forth; causing its entire spinal cord and muscles to move. This natural action helps promote and maintain overall health.

Human spinal design permits lateral twisting - a fish-like movement - that serves to relieve vertebra joint pressure and promotes a sense of well-being. Unlike children, adults seldom realize the benefit of this bodily movement. Consequently, stress and tension simply accumulate in the body. Observe how a baby stretches and twists in its crib. This is a natural human movement that simultaneously relaxes and relieves minor muscle aches and pains.

The oxygen-efficient, therapeutic massager replicates this undulation of the spine (based on the way fish swim and animals walk). This maximizes the movement of all body cells, which, in turn, supports deep relief. Traditional forms of vigorous exercise provide health benefits, but most also consume vital oxygen and compress intervertebral disks. Fatigue or physical stress generally result.

The oxygen-efficient therapeutic massager supports health without creating an energy deficit, undue stress to the body, or energy-zapping exertion. Quite simply, you get all the cardiovascular benefits of an aerobic workout without the spine-jarring effects of running or jogging - and you don't have to risk life or limb trying to ride a bicycle!

Because the activity is performed while you are reclining and relaxed, weight is removed from the spine. A sense of well-being and pleasure is immediate and noticeable. This also results in a relaxation and relocation of joints and muscles throughout your entire body.

The rhythmic left/right movement may also influence the effects of a hard day's work due to over fatigue, and/or long-term chronic weakness, by helping return relevant organs to their original anatomical position.

Human ligaments may be compared to the rubber band, after stretching for a long time; they'll never regain their original elasticity and tenacity. The oxygen-efficient therapeutic massager can recover the original nature of the ligaments, so that they can support the internal organs as before.

Blood and lymph fluid carry out the action of "transportation corps" for metabolism; nutrients and oxygen are carried to every corner of the body, from here wastes are removed and brought to the kidneys and intestines, and eventually excreted. This transportation is generated through the rhythm of cardiac movement, and is further promoted by rhythmical muscular contraction and cycling of venous blood and lymph fluid. Because you feel relaxed and at ease, you can sleep

soundly after a few minutes of oxygen-efficient passive aerobic exercise.

Free fatty acids do not deposit in the abdomen and are carried away through consumption - a process of weight loss far more effective than any other measures. The undesired fat deposit in the abdomen and buttocks will gradually disappear and original firmness restored. Medication and injections are not used as part of this exercise and it is appropriate for those suffering from obesity or arthritis, as well as cardio-pulmonary patients who are unable to perform physical training.

3. SPINAL INFLUENCE ON HEALTH

Within the brain and extending through the core of the spinal column, is the central nervous system. It branches out from the nerve network that reaches every part of the body and provides all body functions not under conscious control, for example breathing, digestion, heart rate, etc.

This extended "nerve" network is termed the autonomic nervous system and it further divides into the sympathetic and parasympathetic nervous systems, which provides a vital balance to the body's "nerve" functioning. Any impairment to the spinal alignment or abnormal spinal pressure on vertebrae joints can impair the autonomic nervous system resulting in minor and major body dysfunction, disorder and disease.

How The Spine Affects Your Health

If the sympathetic and parasympathetic nervous systems fail to ensure balance of function, insomnia, excessive dreaming, digestive problems, stomach pain, palpitation, anxiety, constipation, neurasthenia and extensive forms of aches and pains, as well as mental stress may surface.

- Cervical Vertebrae: migraine, insomnia, dizziness, amnesia, numbness in facial nerves, ear inflammation, ringing in the ears, high blood pressure, pustulence, tonsillitis, cataracts, myopia, sore throat.
- Thoracic Vertebrae: swelling thyroid, hardened neck muscles, stiff neck, pain in upper body nerves, numbness, lack of strength, tracheal

inflammation, asthma, heart disease, liver disease, diseased stomach function, diabetes, allergies, inflamed kidneys, arthritis, rheumatism, hardening of the arteries, stone formation, apoplexy, decrease in immune system function.

- Lumbar Vertebrae: constipation, dysentery, hernia, varicose veins, period pains, sciatica, painful knees, difficulty in urinating, too-frequent urination, weak legs, painful soles of feet, urinaemia.
- Sacrum: different leg lengths, bladder inflammation, tilted womb, and inflammation of the caecum, hemorrhoids, and difficulties in getting pregnant.
- Coccyx: Painful tailbone

Spinal Column Bone Marrow

Blood is produced in the spleen and spinal bone marrow. Reduction of splenic blood production can arise from the spleen's susceptibility to damage. Spinal column bone marrow is also a source of immune system globulin upon which middle-aged adults are more dependent, following depletion of globulin production from the "aged" and shrinking thymus gland.

Utilization Of Full Spinal Movement

The design of the human spine permits a sideways "snakelike" movement that serves to relieve vertebrae joint pressure. Modern man fails to exercise this unique design feature, partly because mental stress creates body tension and rigidity. Spinal movement has been reduced to a forward and upright torso momentum, restrained by body tensions.

When you awaken or feel tired, you raise our arms, stretch and yawn, and in the process, flex the spinal column in a twisting snakelike movement. Instantly you feel a pleasurable sensation of energy movement and alertness of mind. When you yawn, the lungs fill with air and greater oxygenation of cells occurs, pressure on the intervertebral discs momentarily releases and the autonomic nervous system is stimulated. (Do a "yawning" stretch now to verify the value of such oxygenation and spinal twist).

Cellular Activation

Stimulation to the sympathetic nervous system opens up the bronchioles providing maximum oxygen access to the lungs, simultaneously the blood flow to and from the lungs is increased, enhancing oxygen exchange from the lungs to the blood and therefore to the body cells, exciting cellular metabolism.

Stimulation of The Autonomic Nervous System
The stimulation of the sympathetic nervous system can restore the vital balance to the nervous system, resulting in restoration of health from such conditions as insomnia, excessive dreaming, digestive problems, stomach pain, palpitation, anxiety, constipation, neurasthenia and extensive forms of aches and pains, as well as mental stress.

4. IMMUNE SYSTEM

Enhanced by Beta-1, 3-D glucan.

Immunologists have long distinguished between cellular and humoral immune systems. It has become clear that these two are closely intertwined. Almost all antigens evoke both responses to some degree. However, one arm is usually more effective than the other and regulatory mechanisms end up directing to one side or the other.

The immune response is the body's way of defending itself against foreign substances that invade it. These invaders, like viruses, bacteria, fungi, etc., cause infection and disease. The immune system's job is a complicated process. It involves the coordinated efforts of several types of white blood cells.

The immune response begins when invaders, such as viruses, enter the body. White blood cells, called macrophages, encounter the invader and consume it. The macrophage does not care what the invader might be. It only knows self or non-self. Meanwhile, other viruses look for nearby cells to infect. Beta-1, 3-D glucan modulates and potentiates the macrophage and keeps it in a more prepared state. With this balancing effect, all subsequent immune response improves. The beta

glucan and the macrophages are oblivious to the type of invader or the health of the host. Again, the macrophage only knows self or non-self. The glucan treated host will enjoy an increase in its arsenal against unwanted offenders.

Next, the macrophage digests the virus and displays pieces of the virus (antigens) on its surface. Antigens may be any substance introduced into the body that the immune system recognizes as non-self. Nearby cells may become infected by the attacking virus. In a healthy immune system, these infected cells will come under attack, be destroyed, and be removed before they can be used to spread the illness.

Unique among the body's different helper T cells (another class of white blood cells), one particular helper T cell recognizes the antigen displayed and binds to the macrophage. There are at least two subsets of the helper T cell, the Th1 and the Th2. They make the decisions as to what type of response will be ordered. Up and down regulatory factors transmitted by this pair of cells (macrophage + T helper) provide many variations for dealing with the invaders.

This union stimulates the production of chemical substances - such as interleukin-1 (IL-1) and tumor necrosis factor (TNF) by the macrophage, and interleukin-2 (IL-2) and gamma interferon (IFN- γ) by the T cell - that allow intercellular communication. These cytokines/lymphokines (fax messages) are required for T cell activation and response. Mere activation is not enough. The Antigen Presenting Cell depending on the type (MHC I or II) of presentation gives co-stimulation (a second go-ahead signal). CK28 (blood test) reflects this co-stimulation and activation process.

Balance of cytokine production is important. Autoimmune diseased patients frequently display low IL-2 and high gamma-interferon. Absolute causes are not established but there are strong indications towards viruses and environmental factors (i.e., sunlight, chemicals, and certain drugs that alter recognized self to non-self cell types). Due to the high incidence of autoimmune disease in women, heredity and sex hormones are suspected since Major Histocompatibility Complex

(MHC) responses are relative to certain genes.

There are numerous studies showing the safety and effectiveness of Beta-1, 3-D glucan, in a host for immune bolstering immune dysfunction, immune dysregulation and last but not least, the selective lowering of LDL cholesterol.

To maximize your uptake of the Beta-1, 3-D Glucan, it should always be taken on an empty stomach. Wait at least 30 minutes before eating or drinking anything. A small amount of pure water should be used to swallow the material. (No coffee, teas, juice, etc.) Normally, simple sugars would be broken down in the digestive system, converted to glucose, and used for energy. This does not occur along the chain of polysaccharides like Beta-1, 3-D glucan. The polysaccharide is carried across the lining of the small intestine into the lymphatic system. It is lined with enterones and enterocytes. They produce a sticky substance on their surface called glycocalix or "the fuzz." In this glycocalix, binding sites (receptors) sit ready to grab the Beta-1, 3-D glucan. From the lymphatic system, the Beta-1, 3-D glucan is carried into the blood stream; this process is called endocytosis and pinocytosis.

As part of the continuing process, IL-1 helps activate Band T cells; IL-2 instructs other helper T's and a different class of T cells, the killer T's (CTLs or cytotoxic lymphocytes), to multiply. The proliferating helper T's in turn release substances that cause B cells to multiply and produce antibodies. B cells are prepared to recognize antigen without preprocessing. The T cell cannot recognize antigen in its natural state. It must first be broken down and the fragments bound to a Major Histocompatibility Complex (MHC) molecule by the APC. The macrophage is an APC. Glucan causes its receptor site (key slots) to be readied for these presentation chores.

The killer T cells (trained assassins) now begin shooting holes in cells that have been infected by viruses or other pathogens. The killer T cell (CTL or cytotoxic T lymphocyte) becomes a "trained assassin." They respond to the MHC I complex, which is found on almost all body cells. The CTL has the ability to seek and destroy infected human cells in a specific manner. With the injection of

powerful chemicals, these infected cells are killed before they can be used to spread a disease. Natural Killer (NK) cells are large, granule-filled lymphocytes that take on tumor cells and infected body cells. They are known as "natural" killers because they attack without having to recognize specific antigens. Like the macrophage, if it is not "self," it will proceed to kill. NK cells and CTLs both kill on contact. The killer binds to the target, aims its weapons and then releases a lethal burst of chemicals to punch holes in the target.

When a Class II MHC molecule is presented by the APC, the B cell/antibody process begins. This is the humoral side of the immune system. The antibodies released by the B cells bind to antigens on the surfaces of free-floating viruses. The Complement system is made up of 25 proteins that work with the antibodies to destroy invaders. They facilitate phagocytosis (eating by phagocytes) or they directly puncture the invader's cell membrane. C3 is the key protein that triggers the "complement cascade." This cascade results into a "membrane attack complex" that literally blasts a hole into the antibody marked prey. Fragments thrown off by this process bring into play most cells and basophils. By releasing their chemical contents, they produce the redness, warmth and swelling of the inflammatory response.

Finally, as the infection is brought under control, the activated T and B cells are turned off by suppressor T cells (a T-8 subset). However, a few "memory cells" (another T-8 subset) remain behind to respond quickly if the same virus attacks again. Immunologists believe that the body fights cancer in much the same way it seeks to eliminate viruses. Further study of the immune system is expected to reveal ways to bolster it, allowing the body to become a more active partner in the fight against cancer.

5. OXYGEN AND TUMORS

Oxygen and water are the two most important factors for maintaining good health and longevity. No one can live without either of these two factors. The importance of oxygen lies in its role in the cardiopulmonary system. It takes in and sends oxygen into the blood circulation through pulmonary

circulation. The blood is pumped out from the heart and circulates along blood vessels to the whole body for the use of cellular metabolism and growth. It is also used for the functional operation of various organs.

For example, the liver is a big "chemical plant" in the human body, the kidney may be called a "sewage processing station", and the brain acts as the "central headquarters." All these can be done on condition of oxygen nourishment. If you live in a polluted atmospheric environment, you will feel dizzy and confused, behave sluggishly and lack of clear thinking.

On the other hand, if you always stay in a fresh air environment, then your brain is clear, with smart thinking and active response. Hence, it is not an exaggeration to consider that oxygen is the basis of life. Knowing the importance of life, it can confirm from the appropriate aspect that many lesions are related with anoxemia. The continuation and quality of life have an inevitable relationship with oxygen. How to maintain sufficient oxygen supply is the goal for medical specialists to pursue for the past several thousands of years.

Today people understand that insufficiency of oxygen is related to the occurrence of various tumors. As early as 1931, Nobel Laureate Warburg came to the conclusion that the major cause of cancer was insufficiency of oxygen. Another Nobel Laureate named Woodward reached the same conclusion. Tumor cells tend to exist in low oxygen status.

The occurrence and development of many tumor cells are associated with low oxygen tension. As a result, in tumor therapy some medical professionals apply high-pressure oxygen to intensify the effect of radiotherapy with deep X-ray or gamma ray, with the purpose to increase the susceptibility of such treatment.

The increase of susceptibility of anti-tumor therapy resulted from increase of differential oxygen pressure is known as the "oxygen effect" in medicine.

This involves the invention of high-pressure oxy-

gen cabinet to increase the oxygen environment for treatment of diseases, especially for those due to vascular constriction, spastic disease, gangrenous lesions and some sequel of trauma. Now it also is used as adjunct method for the tumor therapy to increase the therapeutic effect of anti-tumor treatment.

Use of ozone cabinet treatment is also reported. The application of trivalent oxygen in the treatment is not yet universal. However, analysis of the available data indicates that it is effective. Of course, people cannot buy an oxygen cabinet to do exercise and it is impractical to buy an ozone generator for health care.

It is, however, possible to possess an affordable therapeutic massager. Family members can easily maintain a daily 10-15 minute activity schedule.

This form of exercise, combined with steady and deep breathing, enables you to inhale more oxygen. The blood vessels throughout the body benefit by the increase of differential oxygen pressure in arterioles and more oxygen is available for cellular metabolism. The normal development of cells naturally reduces the chance of mutation and malformation of cell population. This measure is a preventive step for normal individuals.

In conclusion, it is advisable to do aerobic exercise for patients with tumors and those under treatment, as well as those in convalescent stage. Of course, how much time and what method should be used vary for each person. We recommend individuals consult with specialists and experts in this field.

6. OXYGEN AND MENTAL HEALTH

As we enter the Twenty-First Century, we are faced with new challenges and pressures. It is an accepted fact that mental well-being is critical to maintaining good health. Unfortunately, depression can affect people of all ages, races and religions. Some common symptoms of depression are mental agitation, sleepiness, palpitations, loss of appetite, nausea, vomiting, constipation or diarrhea.

There is a new syndrome called adaptation syn-

drome, mainly caused by tension. The overactivity of the pituitary adrenal axis is due to internal and external tension. This may result in the secretion of a large amount of adrenocortical hormone and could result in hypertension, peptic ulcer, arrhythmia, insomnia, irregular menstruation, or neurasthenia.

Since the use of a therapeutic massager can provide a calming effect, it and can help the secretion curve of the pituitary adrenal axis activity reverse to normal. The sympathetic and parasympathetic nerves of vegetative sympathetic nerve, i.e., the nervous system regulating our viscera, needs to be coordinated and balanced.

7. OXYGEN AND CARDIOVASCULAR DISEASES

Unfortunately, physical training increases the burden on the heart and lungs and consumes oxygen for patients with cardiopulmonary diseases. On the other hand, inactivity promotes poor blood circulation and increased bad cholesterol levels, eventually worsening the cardiovascular disease. If the disease at first belongs to cardiac rhythm, then with the development of the disease, the diameter of the blood vessels supplying blood to the heart or coronary artery will be increasingly narrowed. This situation not only reduces the blood supply to heart muscle, but also increases the lesion of cardiac transmission bundle. Therefore rest can't cure this disease.

Utilizing the therapeutic massager, a passive, low intensity and rhythmic movement consumes fats and cholesterol.

Rhythmic shaking, however, can relax your muscles and widen the blood bed, resulting in an improved flow of more blood to the coronary artery. The constriction and dilatation of blood vessels are regulated by the vegetative nervous system. It is not under the control of human consciousness, therefore it is also known as voluntary (automatic) nerves. It consists of mutually controlled and mutually coordinated sympathetic and parasympathetic nerves. As you physically age or become exhausted, the coordination of these nerves becomes uncontrolled and results in hypertension, hypo-tension and many other vas-

cular diseases. Medication adjustments can help the recovery, however, artificial adjustment is not as good as auto regulation. Our ancestors used a meditation method to adjust their nervous systems to relax cardiovascular. Today most people do not have the time to sit quietly and meditate, nor do they have sufficient patience to learn these techniques.

Mimicking the movement of a goldfish to do rhythmic shaking will help regain balance, relax constricted blood vessel and recover the lesions of dilated blood vessels.

8. OXYGEN AND THE RESPIRATORY SYSTEM

The respiratory system is made up of the nose, pharynx, trachea, bronchioles and alveoli. Actually the route from nose to bronchioles is an air passage. The gas exchange in reality occurs in alveoli. The alveoli act as a thin membrane through which oxygen is inspired and carbon dioxide is expired.

For this reason, how the respiratory system works depends upon the functional status of the long air passage and the pulmonary alveoli. Inflammation is the most common cause of respiratory diseases. It causes the thickening (swelling) of the mucous membrane in the trachea and bronchi, and increases the secretion and contraction of the smooth muscle layer of the trachea. The final result is that the airway is narrowed, a vital volume of respiration is reduced and the inspiration of oxygen and expiration of carbon dioxide is obstructed. Moreover, the sputum, which is the mixture of mucus and inflammatory exudate, stimulates the nerve ending of the wall of air way and results in coughing.

A congenital bronchial anomaly may cause bronchiectasis, which in turn hinders normal ventilation and the bronchitis can worsen ventilation. People with this condition are prone to have inflammation, which further worsens the narrow passage of air exchange and edema and the efficient air exchange function is further reduced. On the other hand, the thickening of alveoli due to inflammation reduces the air exchange function, so the patient has anoxia, cyanosis, short of

breath, palpitations, etc. The cascade develops from respiratory system to cardiovascular system and even to brain and nervous system.

In addition, there is a ciliated layer in the tracheal passage to propel mucus and foreign particles. However, in case there is bronchitis, bronchiectasis, etc., the cilia function is much reduced. The impaired function makes the control of inflammation more difficult.

There are people who suffer from allergic asthma, either congenital or acquired, resulting spastic narrow bronchi. A traditional Chinese medicine can be used as an expectorant and anti-inflammatory drug to keep the passage of respiratory tract free, so that sputum is easily expectorated and the inflammation is resolved. However, due to the existence of etiological factors, it is very difficult to achieve.

For those who have these disorders in the respiratory system, aerobic exercise will provide movement to the whole musculature, skeleton, joints and visceral organs. The spastic bronchial wall muscle will be relaxed, and the cilia on the bronchiole tube will recover its ciliate movement.

After aerobic exercise, the visceral vegetative nerves are relaxed and sputum is easier to expel. The final result is a free and healthy respiratory tract.

For those who suffer from colds, bronchitis, asthma and bronchiectasis, a therapeutic massager can be very helpful to the recovery of their respiratory system.

9. INSOMNIA AND SLEEP DISORDERS

Anyone who has experienced insomnia understands how it can affect the quality of life. Insomnia is an important issue among health care professionals. Most people over the age of 25 consult with their doctors about sleep problems and many of them are prescribed sleeping pills and/or sleep induced by hypnosis. These methods are not effective because it is not a physiological sleep and it cannot produce the same effect as physiological sleep.

The therapeutic massager has an unexpected advantage and can improve sleep patterns. A widely renowned Japanese scientist, Dr. Inoue, determined that passive aerobic exercise increases the intake of oxygen. As a result, the metabolism of the brain cells tends to shift to tranquility, and naturally, results in a peaceful, sound sleep.

If you suffer from insomnia, you should eat a light dinner, keep the room temperature low, maintain good indoor ventilation and avoid excessive physical or mental activity in the evening. If you dedicate 10-15 minutes using the therapeutic massager and then go to bed, you won't need sleeping pills.

10. DIGESTIVE DISORDERS

The digestive system's main task is the processing of food, transforming it into different useful products and conveying them for the energy consumption of organs, bones and muscles. For those people with digestive tract ailments, medication frequently does not produce ideal results because the digestive tract is a moving viscera.

If you do not have enough exercise, you lack the proper relaxing and contracting functions. This can cause symptoms of pharyngemphraxis and pharyngeal cancer. If there is lack of movement in the digestive tract and slow peristalsis, then the digestive process cannot be completed. The insufficient movement, as well as the lack of bile and pancreatic secretion, makes the whole digestion process incomplete. Too much gastric acid will induce belch, eructation, or even possibly gastric ulcer or duodenal ulcer. This can worsen and transform into gastric cancer. The stomach and intestines are controlled by vegetative nerves. The excess excitation of vagus nerve will secrete too much gastric acid, which, in addition to taking part in the digestion of food study, would dissolve the gastric wall and result in "digestive ulcer". Therefore, in the treatment of gastric ulcer, some surgeons sever the vagus nerve to reduce the gastric acid secretion and, at the same time, to remove the part that controls its recurrence.

The severing of vagus nerve reduces the stimulus to secrete gastric acid and prevents the relapse of

gastric ulcer. On the other hand, the excitation of vagus nerve will reduce the peristaltic movement of gastrointestinal tract. The indigestion resulted will in turn induce peptic ulcer and cancer. Therefore, how to maintain and recover the normal movement of gastric digestive tract and the secretion of its accessory glands is the basis related to the prevention and treatment of digestive tract disorders.

Another problem commonly seen in the digestive tract is constipation. Fecal material is accumulating when the peristalsis is impaired. As a result of chemical change, a toxin is produced. If the peristalsis is normal, the fecal material is defecated long before toxin is produced. The toxin produced by people suffering chronic constipation is absorbed into circulation and causes severe damage to the body.

Many people do not exercise enough...they stay inside for long periods of time and depend on driving instead of walking. We understand many people cannot tolerate vigorous oxygen consumption exercise, but it can adjust the balance of vegetative nerves; it can transform the excited constitution of vagus nerve through stimulating the sympathetic nerve to balance the vagus nerve and eventually attain a mutual balance between them.

The therapeutic massager does not consume a large amount of oxygen and produces very few acid products, thus eliminating or reducing the presence of ulcer inducing or carcinogenic substances. Once you have a healthy digestive activity and strong functions, constipation is naturally resolved. Therapeutic massage is a very good method to recover your normal digestive function, to treat and prevent digestive ulcers and tumors and is the most physiological and fastest route to treat constipation.

Those who expect themselves to have a healthy digestive function need to make therapeutic massager a high priority and it is especially appropriate for those who cannot do regular gymnastic exercises.

11. ENZYMES, CALCIUM, AND LONGEVITY

The comparative study of the enzyme content of the blood, urine, and digestive fluids of the human population can create some very important data. For example, the average diet is predominately heat-treated and possesses only a fraction of its original enzyme content.

It has been shown that young adults have a high value of enzyme reserve in their tissues. In older persons, the potential enzyme tissue reserve is much lower and essentially depleted.

When a young person eats cooked food, there is a greater outpouring of enzymes from the organs and body fluids than in adults. This is because years of eating a cooked food diet have depleted the adult, whereas the young adult's tissue reserve is still at maximum.

A further experiment in relation to saliva and its amylase content was performed at the Michael Reese Hospital in Chicago. One group of young adults between the ages of 21-31 and another group of older adults ranging from 69-100 were used in the experiment. It was shown that the younger group had 30 times more amylase in their saliva than the older group.

The increased amount of enzymes is why younger persons can tolerate a diet of white bread, starches, and predominately cooked food.

However, as our enzyme reserves are depleted over the years, these same foods can cause illnesses such as constipation, blood diseases, bleeding ulcers, bloating and arthritis. In some individuals, the enzyme content of the body has been depleted and these kinds of foods are not properly digested. They ferment in the digestive tract, producing toxins that are then absorbed into the blood and deposited in the joints and other soft-tissue areas.

A "chronic disease" is a disease that has lingered in the body for many weeks, months, or sometimes years. It has been a constant drain on the body, depleting it of its enzymes, vitamins, minerals, and trace minerals. During chronic disease processes, there is usually a low body reserve of

enzymes. Dr. Volodin, in the Archives *Vendanugskrankh*, found that after studying the enzyme levels in urine, blood, and intestines, the levels were usually decreased in people with diabetes. In many cases, studies of feces showed incomplete digestion of meat and fats.

In five out of six diabetic patients, the lipase and trypsin (proteolytic enzymes) of the pancreatic juice were found to be decreased. Dr. Ottenstein, in a similar study pattern, showed low blood amylase levels in skin afflictions, such as psoriasis, dermatitis and pruritis.

Another interesting experiment showed 40 patients suffering from liver diseases, such as cirrhosis, hepatitis, and cholecystitis (inflammation of the gallbladder) showed low levels of amylase. It was found that when there was a rise in the blood amylase level, there was an improvement in the general condition of each patient, as well as an improvement in the liver condition.

It is an indisputable fact that chronic disease results in a lower enzyme content in the blood, urine, feces, and tissues. In acute diseases and sometimes at the beginning of chronic diseases, the enzyme content is often found to be high. This shows that the body has a reserve and the tissues are not yet depleted; consequently, there is a larger outpouring of enzymes in the battle against the disease. As the disease progresses, the body's enzyme content is lowered.

This correlation between a diminished enzyme content during chronic disease and old age is often misunderstood. A low enzyme content in old age is often looked upon as "normal." A low content during chronic diseases is considered a pathological state.

The truth of the matter is that age is not so much a matter of chronology, but rather is a matter of the integrity of the body tissues. These tissues depend upon the amount of enzymes present to carry on the metabolism of every cell in the body. It is common to find a man or woman 60 years of age with the body of someone in their 40's.

There is a definite correlation between the amount

of enzymes an individual possesses and the amount of energy they have. Increasing age causes a slow decrease in enzyme reserve. When the enzyme level becomes so low that metabolism suffers, death will finally result.

Any time the metabolism is falsely stimulated by coffee, a high protein diet, or other stimulants, the metabolism increases, enzymes are used up. This results in a false sense of energy and the individual feels a sense of well-being. At Brown University, a group of 158 animals were overfed. They lived, on the average, 29.6 days. Another group was maintained on a starvation diet, given only small amounts of food and fluid. They lived, on the average, 39.19 days - an increase of about 40%. At the very least, this study should make each of us look at our own intake and determine if we are indeed over-ingesting.

A high protein diet is very stimulating to the body, but can cause serious damage. When the diet consists of more protein than is needed, the excess is broken down by enzymes in the liver and kidneys. The major by-product of protein breakdown is urea, which is a diuretic. Urea stimulates the kidneys to produce more urine. Along with water, minerals are lost in the urine. One of the most important minerals lost is calcium.

Experiments have shown that when subjects consumed 75 grams of protein daily, even with an intake as high as 1400 milligrams of calcium, more calcium was lost in the urine than was actually absorbed. This deficiency must be made up by the body's calcium reserve, which is taken from the bones. Deficient bones are a stepping-stone to osteoporosis (a condition that causes bone to break easily). The aforementioned experiments all have shown that when excessive amounts of protein, or food in general, are eaten; there is a corresponding decrease in enzyme, vitamin, and mineral levels.

At the University of Toronto, a team of scientists showed that life runs its course in direct proportion to the "catabolic rate." (The catabolic rate is a measure of the rapidity of the wear and tear of the body or the rate of tissue breakdown. This is in direct proportion to the aging process.) This tissue

breakdown is performed by enzymes. The faster the breakdown, the more enzymes are used up.

Dr. Howell further states that, "Enzymes are a true yardstick of vitality. Enzymes offer an important means of calculating the vital energy of an organism. That which we call energy, vital force, nerve energy, and strength, may be synonymous with enzyme activity."

Our logic tells us that the buildup and the breakdown of tissues are performed by enzymes. In other words, our metabolism is maintained by enzyme activity. When our enzyme level is lowered, our metabolism is lowered, and so is our energy level. Do not misunderstand this statement. We are not saying that the source of life is enzymes, but that there is a correlation between enzyme levels and the youth of the tissues of an organism and its energy levels.

Investigations have shown that in warm temperatures, enzymes are used up more rapidly than in cool temperatures. When starch-digesting enzymes are added to potato starch and placed in a room that has temperature of 80° F, the starch is digested much more rapidly than starch with enzymes placed in a temperature of 40° F. As the temperature increases, the enzymes work harder and are used up faster.

The prevalent thought here is that enzymes are not actually used up, but many tests have shown that various enzymes are found in the urine after fevers and athletic activity. Enzymes are found in the urine, feces, and sweat, along with the used-up substances from proteins, enzymes, fats, carbohydrates, vitamins, and minerals.

Other food substances, such as vitamins and minerals, are replaced daily in our food intake. Not enough attention is placed on taking enzyme supplements or eating raw food. If we do not replenish our enzyme level and only consider vitamins and minerals, we defeat ourselves. The body must replace enzymes from within itself, stealing enzymes from all parts of the body, which in the end causes exhaustion, premature aging, and a low energy system.

The utilization of vitamins depends upon enzymes, and enzymes often depend on vitamins. Under clinical observation, it has been shown that when taking vitamins combined in capsules with enzymes, smaller amounts of vitamins and minerals are needed.

12. FAR INFRARED

Within the magnetic spectrum some rays, such as light, can be seen by the unaided human eye. Most, however, are totally invisible to us. Far Infrared (FIR) are well beyond the ability of the naked eye to see. FIR gently and delightfully gives the body a feeling of well-being. When FIR penetrates our bodies, it is converted into the appropriate energy. This activates the self-regulating systems in our living tissue and alleviates the bodily imbalance and leads to recovery.

The human body is a natural thermal source. Physicists believe that any thermal source can radiate FIR; therefore, the human body is also a natural FIR radiant source. Research shows that the FIR wavelengths radiated by human skin is in the 3-50 micron range. It turns out that 46% of the total energy radiated by the human body is in the 8 to 14 micron range. Our research also shows that the wavelength radiated from typical infrared lamps (80%) is less than 3 microns. Consequently, they will not have much effect on the human body. The effect of traditional infrared therapy cannot be compared to the new types of FIR.

FIR can elevate the temperature of subcutaneous layers thus expanding blood capillaries, stimulating blood circulation, increasing metabolism between blood and tissue, promoting tissue regeneration and reducing cramping. It is also effective in adjusting the autonomic nerve function and reducing the over stimulation of sensory nerves. Therefore, FIR can be not only a beneficial health therapy, but can also be a substitute for other therapeutic modalities. One scientific journal announced, "Because of its heat penetration property, FIR radiates to the meridian points of human body, just as acupuncture needles reach deep into tissue but without leaving any marks on the exterior dermis."

Summarizing the Role of FIR in the Human Body

First: FIR penetrates four or five centimeters into the dermis - from muscles into blood vessels, lymphatic glands and nerves. It affects every living cell and produces warmth. In other words, through cell tissue "micro-friction" and the vibration of molecular resonance, chemicals within cells are activated.

Second: The human body is warmed internally through molecular resonance. Capillaries expand activating blood circulation throughout the whole body to enhance metabolism. As a result, metabolic disturbances are ameliorated, tissue regeneration is promoted, and there is markedly enhanced growth potential.

Third: It plays a comprehensive and compensating role in living things. The warming effect can be very helpful in elimination of such things as the waste products generated by aging, heavy-metals, toxic substances secreted by the sweat and dermis-layer fat glands.

(Source: "Far Infrared- Hopes For Cancer")

Far Infrared (FIR) and Health

Far Infrared (FIR), a part of natural sunlight having the longest wavelength, cannot be seen with the naked eye. When we bask in the sun, the sunlight activates every cell in the human body. Since ancient times, people have believed that appropriate exposure to sunshine can maintain and even enhance health.

However, long exposure to the summer sun has a negative impact on the skin. This fact is undeniable. Excessive sunlight can lead to freckles or other skin changes, some of which can be detrimental. Although FIR cannot be seen with the naked eye, it has the ability to penetrate, refract, radiate and reflect. The human body can absorb FIR because of FIR's deep penetrating ability.

All matter is made up of uniquely arranged atoms and molecules and the molecules are all moving in unison. Molecules are composed of atoms. There is a continuous cyclical vibration among and between those atoms. When molecules are

illuminated with electromagnetic radiation of the same intrinsic vibration frequency as the substance itself, the electromagnetic wave energy is absorbed and the amplitude of that substance's molecular vibration is increased.

The increased vibration produces heat through friction. Many organic molecules have the same intrinsic vibration frequency as FIR. That's why when FIR, having the same vibration frequency, illuminates a substance, that substance will filter out the FIR and experience "resonance absorption." This is a process known as "resonance-absorption to heat-generation" with the aid of FIR.

In other words, the vibration of atoms and molecules will generate heat and result in resonance absorption. In skin, the result will be elevated dermis temperature, expanded blood capillaries, and stimulated blood circulation. Metabolic disturbances, such as extra-vascular blood (bruising) will be scavenged, cell tissues are activated and production of enzymes is enhanced. Wastes from the aging process, the result of the natural process of metabolism, and detrimental aqueous substances will be eliminated through the sweat glands.

The warming effect of FIR can stimulate metabolism and blood circulation. It can also promote the elimination of such things as poisonous, carcinogenic heavy metals, toxic substances from food processing, lactic acid, free fatty acids, and subcutaneous fat associated with aging and fatigue, excess sodium associated with hypertension, and uric acid, which causes pain. Furthermore, if sebaceous glands are activated, accumulated cosmetics in pores can be eliminated through the skin rather than by the kidneys. FIR is helpful in this respect.

When we feel hot, we will instinctively seek shade. When we feel cold, we seek the warmth of sunshine. We have an innate desire for a comfortable temperature. Comfortable temperatures are actually synonymous with a comfortable energy frequency or "wavelength". That wavelength happens to be 8 to 14 microns – the same as FIR.

The seventy-five percent of our bodies composed

of water, protein, fat and other substances all must function properly to sustain life. When living things absorb FIR of 8 to 14 micron wavelength, they experience resonance absorption. The vibrating movement of molecules in living tissue produces an increase in heat energy, which in turn activates cells and enhances metabolism.

FIR has three properties: radiation, deep penetration, and resonance absorption. Let's look at the relationship between these three properties and living things.

Radiation: It means it can directly reach human bodies just like light does. For example, sunlight, which is also radiation, reaches earth through the vastness of space.

Deep Penetration: FIR can reach well into subcutaneous layers of the body with its deep penetration ability, generating internal warmth suitable for molecule activation in living tissue.

Resonance Absorption: Once illuminated, there is intrinsic vibration of body components -water, protein, fat, and enzymes. And, the interior of molecules - atoms and atomic structures - experience the resonance absorption of FIR of the same frequency. This elevation of molecular energy is known as "resonance and absorption".

In summary, FIR not only makes the human body warm, but also can activate bodily functions. In other words, it will enhance and energize both your physical and spiritual states. Now that FIR's outstanding properties are gaining worldwide recognition and acclaim, we are beginning to see it appear in a wide variety of medical applications.

13. REFLEXOLOGY

Definition

The human body is a delicately balanced machine that is synergetic... everything working together for the benefit of all. You can compare it to a racing machine, which works best when it's in tune... each part functioning at its peak... all parts working in harmony to make the machine work at optimum capability.

It is believed in ancient China that the bottoms of the feet can be divided into 25 parts, each representing different parts of the body. Reflexology is a science that deals with the principle that there are reflex areas in the feet and hands that correspond to all the glands, organs, and parts of the body. Reflexology is a unique method of using the thumb and fingers on these reflex areas. Reflexology includes, but is not limited to, relieving stress and tension, improving blood supply and promoting the unblocking of nerve pulses, and helping nature achieve homeostasis.

Reflexology Relaxes Tension

Since approximately 75% of today's diseases are attributable to stress and tension, various body systems are affected in different ways and to varying degrees. One person may exhibit cardiovascular problems, another gastrointestinal upset, palpitations, sweating, headaches... to mention but a few of the myriad of bodily reactions to stress.

Reflexology Improves Nerve and Blood Supply

In order to keep the body at a normal balance, it is imperative that the blood and nerve supply to every organ and gland be at a maximum. Of course, the organs and glands contribute to the overall well-being of the body, each making contributions to maintaining an efficient, fully operating mechanism, but receiving their instructions from the most intricate of all networks - the nerves.

These cord-like structures, comprised of a collection of nerve fibers, convey impulses between a part of the central nervous system and other regions of the body. They are the wiring system of the house you call your body. As with any complex wiring system, a short circuit can mean trouble.

A short circuit is often caused by tension putting pressure on a vital nerve plexus or even a single nerve structure supplying a vital organ. As tension is eased, pressure on the nerves and vessels is relaxed, thus improving the flow of blood and its oxygen-rich nutrients to all parts of the body.

Reflexology Helps Nature Achieve Homeostasis

Overactive glands or organs can be helped to return to normal. Conversely, if an organ or a gland is under-active, Reflexology can help return it to its normally functioning level. It is important to note here that the normalization action of Reflexology is never one of opposite extreme. In other words, once homeostasis or a normal condition is achieved, it cannot be unbalanced by working the area too much. Over working can cause some minor reactions such as diarrhea or perhaps some nasal mucus being secreted (runny nose). These reactions are cleansing the poisons from the body. Reflexology cannot harm a system; it simply brings it back into balance.

The Zone Theory

Reflexology embodies the relationship of the reflexes in the feet to all of the glands and organs in the body. Let's now discuss this relationship. Just How does one small area of the foot affect something like the pituitary gland? What is the link?

This is where the ZONE THEORY becomes significantly important to every Reflexologist. The zones are like the wiring in a house, the reflexes travel through the zones similar to electricity through the wires. But please note that this analogy is not to be confused with the nervous system in the body... reflexes, as far as we know today, are not nerves.

The link from the feet to the organs and the glands in the body is a series of imaginary longitudinal lines, each encompassing a zone. In order to locate the zones accurately in the arms and hands, the thumbs need to be placed toward the body, the opposite of the anatomical position.

The word zone is used for several significant reasons. There are ten zones. Easy enough to remember: one for each finger, and one of each toe. Zone one start at the thumb and great toe. These zones run the length of the body, from the top of the head to the tips of the toes.

It is extremely important that Reflexologists become zone oriented, so they must be thorough-

ly familiar with the basic zones and the anatomy associated within them. An organ or a gland found in a specific zone will have its reflex in the corresponding zone of the foot. Any sensitivity located in a specific area on the foot will signal to you that there could be congestion in that area. It should become evident then, that by working the entire foot, you are affecting the entire side of the body, (the left foot representing the left half of the body). It is important to remember another significant aspect of Reflexology: an abnormality in any part of the zone may affect anything in that zone.

Organs... The Inside Story

The body is packed with vital organs and glands, which are packed on top of everything else in the body.

Start with the spine, the midline of the body, as a means of orienting yourself to the relationship between the foot reflex points and the organs of the body. Now you have a reference point for each foot. Then use the waistline guideline for your horizontal or lateral marker. The most important body organs are located in four distinct quadrants.

The feet are a reflection of the body with all its glands, nerves, and organs having distinct locations on the feet. Being sure that you are thoroughly familiar with this concept of location makes the zone theory so much easier.

Referral Areas

The referral areas are an interesting and extremely useful adjunct to Reflexology. They allow you to refer one area of the body to an alternate area.

The right and left hands are referral areas for the right and left foot, respectively. When the palm of the hand is facing forward in the anatomical position, the arm will bend in the opposite direction from the leg. This will orient you to the anatomical relationships:

- The palm of the hand refers to the plantar surface of the foot
- The inner forearm refers to the calf of the leg
- The bony part of the forearm refers to the shin bone
- The elbow refers to the kneecap
- The front of the elbow refers to the back of the knee
- The front of the upper arm refers to the back of the thigh
- The back of the upper arm refers to the front of the thigh

Note the relationship of the thumb and great toe, the thumb being in the opposite position to the great toe. The basic reason we call these areas referrals is simply because of the anatomical relationship existing between them. The articulated movement of the ankle would correspond to that of the wrist for motion.

Now, suppose there were a misstep and an ankle became badly sprained. As a Reflexologist, we would know that pressure would soon build up in the area of the sprain unless immediately relieved. Naturally, the ankle is too injured to touch, much less work, so we would work the wrist, for it is anatomically related to the ankle, a logical choice to prevent soreness, swelling, or other possible complications.

A referral area is an anatomically related area, which can be worked instead of, or in addition to, the affected area. This is true of all referral areas. One way to remember this is when thinking of the ankle, refer to the wrist; when thinking of the elbow, refer to the knee, etc.

And why is all of this so significant?

For the simple reason that if you can't work on an area on the foot, you can work the corresponding area on the hand, or the elbow, etc. When there is a severe injury, for example, a broken leg, the corresponding area on the arm would be selected and that area would be worked in order to help the circulation to the injured areas and ultimately hasten the healing process. The basic reason the Reflexologist uses the foot is simply because it is one of the most pampered and protected areas of the body and is one of the most sensitive to touch. Also, the foot's resemblance to the body's outline makes it easy to visualize the body on the foot.

Helper Areas

Helper areas are additional areas worked to aid the specific area of congestion. They are the reinforcements you send to aid the specific area. For instance, if you have a headache, the great toe would be worked, which represents the head. To help that area, the neck, seventh cervical and coccyx reflexes would be worked, since this may be the area causing the headache. A headache is usually telling us that there is an imbalance somewhere in the body.

Helper areas are just that. They are areas that, when worked, help to relieve tension or congestion associated with the afflicted area. They are reflexes that may have a direct or indirect effect on the afflicted area and are the reinforcements needed to make sure you reach the desired results. You are sending help to the afflicted area.

Common Reflexology Terms and Definitions

Medial Side of The Foot - is the great toe side, or the inside of the foot.

Lateral Side of The Foot - is the little toe side, or the outside of the foot.

Dorsal Surface or Dorsum of The Foot - the top of the foot.

Plantar Surface of The Foot - the bottom or sole of the foot.

Distal Part of The Foot - the part farthest away from the body, e.g. the toes.

Proximal Part of The Foot - the part nearest the body, e.g. the heel.

Basic Thumb Technique - executed by bending the first joint at a 45-degree angle while using the medial edge of the thumb.

Basic Finger Technique - executed by working with the medial edge of the finger, in conjunction with bending the first joint of that finger.

Basic Holding Technique - executed by placing the heel of the hand on the ball (metatarsal pad)

of the foot with the fingers relaxed over the toes. Push the foot back and drop the wrist. It is very important to drop the wrist because this action relaxes the longitudinal tendon.

Leverage - obtained by the use of the fingers in opposition to the working thumb or when you are working with the fingers, the leverage will be made with the thumb in opposition to the fingers. The leverage gives the thumb or fingers the strength and endurance for smooth walking.

Relaxation Techniques - special techniques that feel very good and are designed to promote relaxation. These techniques are also used for working the relative reflex area to help improve the circulation.

Pin-Point Technique - used when working a very small and exact reflex area, such as the pituitary gland or sigmoid flexure. These are areas that have to do be contacted with great accuracy in order to be effective.

Hook-In, Back-Up Technique - used when a reflex area needs to be pinpointed such as the pituitary gland, ileocecal valve and the sigmoid flexure reflexes. The medial corner of the thumb is placed on the specific reflex and, instead of walking the thumb, it is pushed in and the thumb is pulled back toward the hand, then the wrist is dropped. This is a steady motion where the thumb is planted with pressure and moves slightly back towards the hand.

Diaphragm Guideline - a thin muscle forming the floor of the chest at the base of the lungs and forms the roof of the abdominal cavity. The guideline to the diaphragm will be found at the base of the distal metatarsal heads where the skin color and texture changes.

Waistline Guideline - found by locating the high spot on the lateral side of the foot about halfway down. This high spot is the protrusion of the head of the fifth metatarsal bone. After finding this high spot, draw an imaginary line across the foot; this will be the waistline guideline.

Longitudinal Tendon Guideline - found on the

plantar surface of the foot when the great toe is extended back. The longitudinal tendon (between the diaphragm guideline and the pelvic guideline) will protrude and feel like a taught band.

Pelvic Guideline - located on the medial side, at the end of the soft arch areas where the heel starts. The heel itself is often darker in color and of a heavier texture, and the guideline is where these two areas meet. Draw an imaginary line across the foot and this will be the pelvic guideline.

Walking The Ridge - refers to where the base of the toes join onto the foot and is used when working the eye and ear reflexes.

Criss-Cross Motion - obtained by working an area in several directions, first with one hand and then with the alternate hand. Usually, you will be working at an angle across the foot from the medial to the lateral side and then from the lateral to the medial side. The reason for working in this manner is to be sure you cover the whole area thoroughly. Sometimes there will be more sensitivity from one direction than from another.

Cuboid Notch - found as you run your thumb or finger down the lateral side of the foot until you reach the low spot. This soft, hollow area below the waistline guideline of the foot will be the cuboid notch.

Gritty Reflexes - found in the feet when you are working some of the reflexes, i.e., the neck and shoulder reflexes. They will feel like little grains of salt under your fingers or thumbs. You will have to develop some sensitivity with your fingers and thumbs in order to recognize them. Gritty reflexes are not found in all areas of the foot.

Tender Areas - reflex areas that feel tight or grainy under your thumb and may provide the client with some discomfort when pressure is applied to this area. You can sometimes tell when you have reached a tender spot as the person tenses up or winces. Watching the client's face can tell you when to lighten your pressure.

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