

Applied Lymphology The Balance between Metabolism & Autointoxication

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Applied Lymphology is focusing on the Lymphatic System including Lymphedema of all classifications. Harmonizing with individual health requirements and the goal to stimulate the body's natural recuperative abilities. Selecting eclectic techniques from the field of Physiotherapy including specialized Kinesiology, Balneology, Hydro- and Electrotherapy.

Throughout the years people asked me about my connection to Kinesiology. Back in Germany at the "institut fuer angewandte Kinesiology" in Freiburg. I ran into Jimmy Scott PHD who was teaching "SET" at that time. I was fascinated and wanted to learn more to integrate into my traditional physiotherapeutic techniques. And for some odd reason whatever I did seemed to have a connection to the Lymphatic System!

It is not totally avoidable to get into biochemistry when you talk about metabolism, but I will try to keep it to the bare necessities.

To Get Started

We have to differentiate the terminology. Because most people equate metabolism with calorie burning. Basically, metabolism is "ALL" the chemical reactions that occur in your body. Metabolism consists of absorption of nutrients and the elimination of wastes (toxins). Medical students spend an entire semester studying Carbohydrate metabolism followed by fat metabolism, protein metabolism, liver metabolism, and so on, to realize that it occurs everywhere: brain, liver, digestive tract, muscle, heart, lungs – every tissue or organ. Thousands of metabolic processes are happening every single minute

of every day. Metabolism consists out of many little metabolisms, any one of which can change without indication of specific change. Blood tests for example, are not very reliable, because the change that took place might be so minute that it did not show in common tests, but yet it is important enough to overburden the entire system. Often people show the same symptoms for totally different reasons. Proper investigation of cause is extremely crucial for proper corrections.

My main goal is to explain the unity of the body, the dependence of differently recognized systems to each other. We cannot separate them. Disease does not occur overnight, you don't get fat overnight either, you don't develop rd stage Lymphedema with fibrotic changes overnight. Even though, I deal with mostly cancer patients developing Lymphedema after physical obstruction of Lymphatics caused by surgery, radiation, or chemotherapy. I like to stress here that Lymphedema can also happen to anybody else, unrelated to cancer. Quite often we don't recognize it as Lymphedema.

Mostly those people are told, "You are just fat!!" Stop eating, and then they run out and buy FAT FREE CHEMISTRY and SUGAR FREE POISON!!

The stagnation of Lymph (Lymphostasis) is always an accumulation of toxic metabolic waste (without matter of cause). In order to avoid toxemia == toxicosis == autointoxication, Lymph has to be able to flow freely.

We're born with a fabulous system that is able to repair it self like magic. As long as you keep it active (exercise), you maintain health.

Any doctor can tell you, that patients recover more quickly from injury on their feet than patients laying in bed.

Fat

The human body can make fat out of almost anything. The carbohydrates in bread, pasta, and potatoes can be turned in to fat as well as excess protein will be converted into fat by the liver. Fat is primary fuel for everything, running, dancing, playing tennis.....! The muscle burns both fat and sugar. Sugar burns instantly (quick energy) but the fat continues to burn for a long, long time. You get much, much more energy (calories) from a fat molecule than from a sugar molecule. All athletes will agree: you may run out of sugar playing active sports, but you never run out of fat. Even people who are starving never use up all their body fat. Surprisingly, even anorexic people, looking like skeletons because they lost so much muscle, but still have approximately ten to fifteen pounds of hidden fat. These people do not starve to death, as a matter of fact nobody has ever actually starved to death.

During starvation at some point the body will run out of glucose and it will start using protein for fuel. In the process of burning protein, at some point the body will start to burn the immune system's antibodies, which are proteins which will leave the body highly susceptible to bacteria and viruses. Death will be caused by infection precipitated by lack of protein in the body.

All the proteins we eat end up in the blood as simple amino acids and the carbohydrates all turn into blood glucose. The fats we eat, which go through the exact same digestive processes, saliva, hydrochloric acid and pancreatic enzymes, don't break up to a simple "one-word" end product.

We get:: Fatty Acids
Monoglycerides
Triglycerides
High density cholesterol
Low density cholesterol
and some more tongue twisters.

The fatty acids are extremely small, it is easy for them to pass through semipermeable membranes. They move out of the

bloodstream into a muscle cell to be burned for energy. If they are not used by the muscle cell, they move back into the blood and travel to a fat cell for storage. These highly mobile fat molecules make up less than 1% of the fat contents in blood. They are not associated with heart attacks or other cardiovascular disease, but they can make us fat if they are not used for energy since free fatty acids are the basic fuel for energy.

When fatty acids hang out in fat cells for to long, they tend to form Triglycerides (stored form of fatty acids). Triglycerides do two things, they sit with fat deposits, and they are dissembled back into fatty acids when the muscles need fuel. Once your body starts to metabolize fatty acids, the Triglycerides will diminish.

70% of energy (calories) muscles need, comes from fat,

30% from sugar.

Typically, muscles burn fatty acids and glucose at the same time, but it requires OXYGEN!! Without oxygen, there is only anaerobic, sugar burning.

There are three classes of Enzymes

1. Metabolic Enzymes

Enzymes are protein chemicals that are involved in trillions of chemical activities. All life, plant or animal, requires enzymes. Enzymes are involved in building, repairing, or maintaining. Therefore it is no surprise that the activity of the Lymphatic System entirely depends on metabolic enzymes.

Metabolic enzymes are the body's "construction workers" without them nothing would happen.

2. Digestive Enzymes:

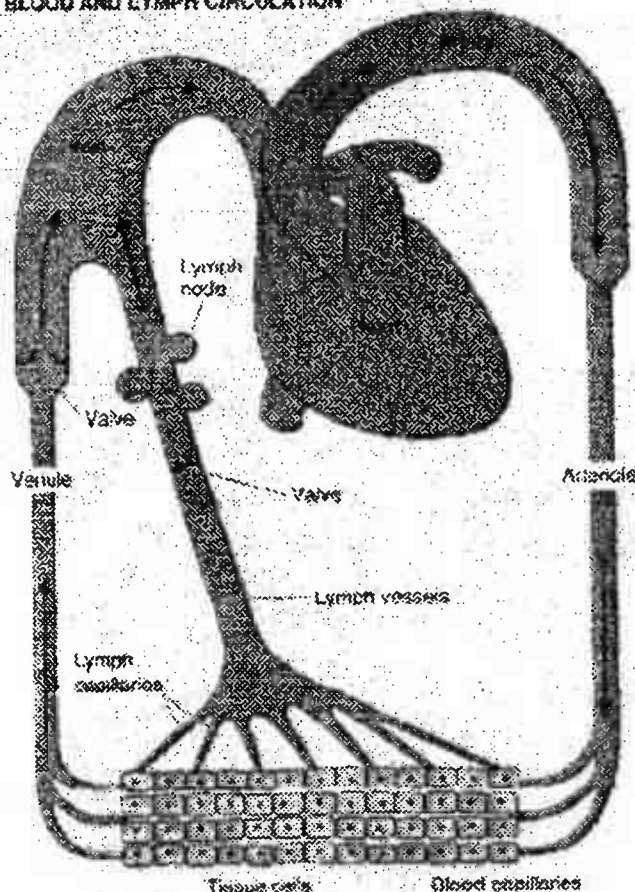
Required to digest food

3. Food Enzymes:

Naturally grown food would contain all the necessary enzymes to break it down in the body for digestion.

Unfortunately we destroy those by cooking. Since food inside the stomach needs to be dealt with immediately, even though all the

BLOOD AND LYMPH CIRCULATION



digestive enzymes have been "cooked out" (destroyed), the body will force the metabolic enzymes mechanism to produce digestive enzymes. This will drastically lessen the effectiveness of your labor force to build, repair and maintain!

Here we are again!!

The Lymphatic System becomes overburdened! Stagnated accumulated amounts of metabolic waste can ultimately make you sick.

Lymphology

Describes the science about the function of the Lymphatic System. The Lymphatic System builds the major part of the body's immune defenses, it fights against infectious pathogens, like bacteria and viruses, it collects interstitial fluids and filters out impurities. Lymph is formed when high arterial pressure forces fluid out of the capillaries into the tissue

spaces. From there it is taken up into the lymphatic vessels.

Anatomy/Physiology

Like the Venous System, the Lymphatic System builds a Superficial System and a deeper system consisting of larger vessels. The Superficial System builds a network of valveless lymph capillaries covering the entire body; (60,000 miles of capillaries) the deeper the lymph vessel are formed by little segments called Lymphangions, which are separated by one-way valves allowing the lymph to flow in one direction towards the nearest filter station made of lymph nodes. Valves prevent back flow of lymph.

As the number of lymph vessels decreases towards the center of the body, their size in diameter increases (thoracic duct).

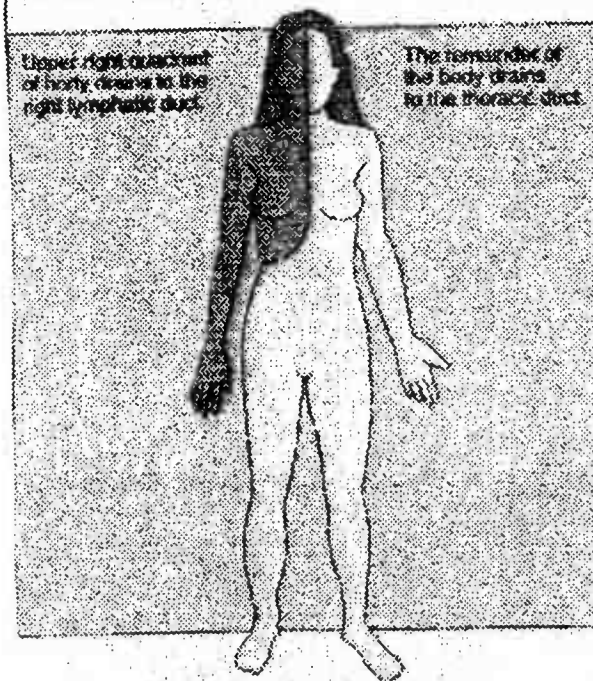
On its way thorough the body, the lymph fluid is cleansed and concentrated by passing through regional lymph nodes arranged in groups or chains. There are approximately 600 lymph nodes throughout the body. Form and size of lymph nodes vary between 2mm and 25mm. Lymphocytes are able to migrate throughout the lymphoid tissues and circulate between different organs via lymphatic channels.

The Lymphatic System interacts with the Circulatory System acting as a Filter and Drainage Network. Arteries transport oxygenated blood, plasma and nutrients towards every single cell.

The Venous System reabsorbs 90% of the deoxygenated, carbon dioxide rich fluid and metabolic waste, 10% remain as lymph obligatory load.

The heart pumps blood under pressure through the arterial and venous system. Lymph is only circulated by muscle contraction.

LYMPHATIC DRAINAGE



The human body consists out of approx. 70% water.

We distinguish between:

- Intracellular fluid (inside the cell)
- Extracellular fluid (surrounding the cells)
- Interstitium or interstitial spaces
- Interstitial fluid

The interstitial fluid serves as Food Supplier and Garbage Dump at the same time. Minerals and Vitamins are supplied and cell residue and metabolic waste is reabsorbed.

Lymphostasis

The correct function of lymphangions can be hindered or stopped due to fatigue, stress, emotional shock, severe colds, infections, lack of mobility, chemicals and food additives causing Lymphostasis. Which means lymph circulation stagnates, fluids, proteins, hormones, fatty acids, immune cells as well as toxins accumulate and cellular functioning is comprised. Long term Lymphostasis can also affect the liver, lungs and intestines, which will lead to dysfunction or even damage of the specific organs.

Cyst formation

Other lymphatic tissue

Thymus gland

Tonsils

Adenoids

Appendix

Spleen

Peyer's patches in the small intestine

Lymph Edema

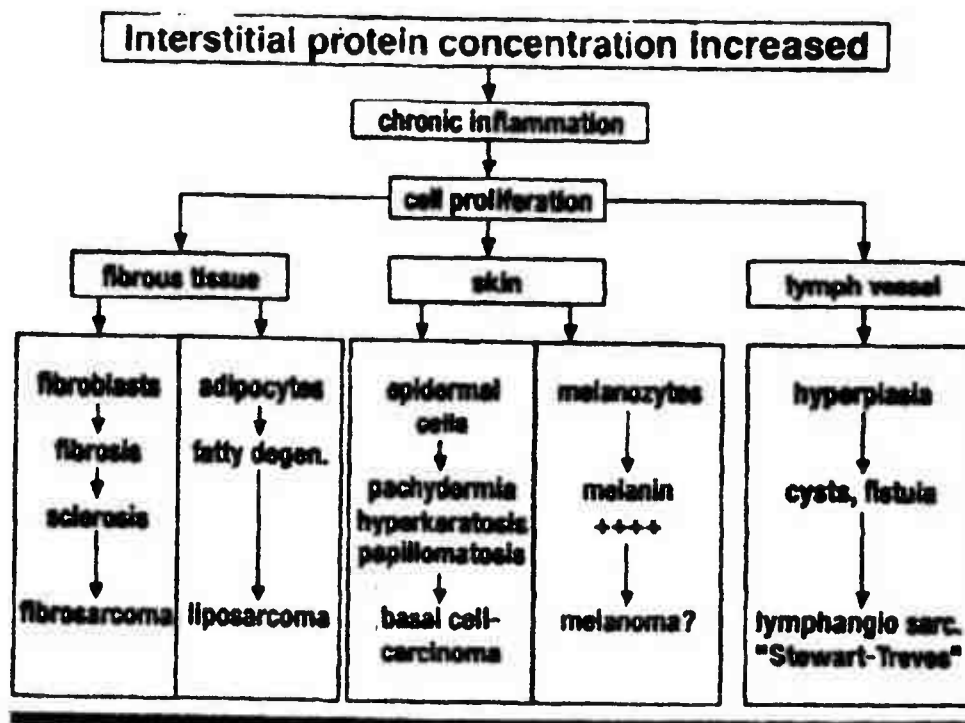
Ignored lymphostasis will lead to Lymph Edema. Untreated Lymph Edema is progressing! Protein rich interstitial fluid will be replaced by fibrotic tissue causing low oxygen tension and severe secondary infections (erysipelas/cellulite).

Lymph Edema is a malfunction or insufficiency of the lymphatic transport capacity for several reasons: cancerous and non cancerous tumors, surgical or non surgical scar formation due to normal wound healing, radiation, or chemotherapy. Even minor disturbances in the micro circulation of the connective tissue can result in congestion and edema. It is essential to differentiate the cause of swelling, location, leading lymph vessels and lymph nodes (Troubleshooting).

- Lymph nodes may swell to block access for bacteria or virus towards vital organs
- Lymphatics may swell to protect the trunk from invasions of allergens (sinus, tonsils, neck)
- Lymphostasis of the face e.g. may be a result of adhesion formed by scarring after accidents, injuries, surgeries and radiation of sublingual lymph nodes. Relieving congestion and lymph Edema through Manual Lymph Drainage has been scientifically proven to prevent pathology.

Immunity

Immunologists have proven that lymphocytes are responsible for the production of antibodies, which combat viral or bacterial infections. The ability to survive in an environment filled with micro-organisms highly depends on the strength of our functioning lymphatic system.



Long term effects of a chronically increased interstitial protein concentration

Two types of lymphocytes, T and B lymphocytes, are known. These cells do not originate in the spleen or in the lymph nodes. They originate inside the red bone marrow, but they migrate into these organs of lymphatic tissue during an early stage of their development.

T-lymphocytes can kill directly. They are responsible for cellular defense and usually assist the B-lymphocytes in recognizing antigens. A successful defense against infection by microorganism depends on the presence and resistance of immunity.

Specificity of Immunity

Under immunity we understand the protection the body builds against a second attack of an infectious disease. But immunity against measles does not protect us against other infectious diseases.

Resistance is the entire defense complex the body is able to mobilize. Resistance is not antigen specific. It is determined by genetic and environmental factors (nutrition, exhaustion, disease). Manual lymph Drainage

is able to strengthen the resistance of the body in fact that pathogenic substances (if present in the body fluids) are transported rapidly by manual manipulation towards the lymph nodes where those are inactivated or destroyed.

Manual Lymph Drainage

Manual Lymph Drainage is a gentle, non invasive, rhythmical massage technique redeveloped and refined in the 1930's by Dr. Emil Vodder in Europe. Having its roots in a technique first introduced by Alexander von Winniwarter in the late 1800. Manual Lymph Drainage relaxes the sympathetic nervous system, reduces pain and appears to enhance the body's immune defense. It is effective in the treatment of acute and chronic lymph edema, acne, headache, sinus congestion, neuromuscular disorders and fascial dysfunction. It is indicated to remove congestion and minimize scar formation as pre- and post surgical procedure. Manual Lymph Drainage facilitates removal of metabolic waste, excess water, toxins, bacteria and large proteins from the tissue via initial lymph vessels and capillaries. Manual Lymph Drainage enhances the action of lymph

angions applying a specific, directional pumping force over them.

Most of the techniques involve a rotary motion that torques the lymph vessels in a way to stretch receptors inside the angion walls. Manual Lymph Drainage applies longitudinal and lateral stretch to the lymph vessel.

Lymph flow is affected through direct action on the lymph vessel which stimulates drainage of the connective tissue by increasing the resorption into the venous capillaries.

Main Effects of Manual Lymph Drainage to Improve Lymph Flow

1. Increasing lymphatic vasomotor activity
 2. Mobilization of stagnated fluid
 3. Softening of fibrous connective tissue
- > Decongestion

Reflectoric application of sports tape after Manual Lymph Drainage (if allowed by skin condition) can improve lymph circulation by applying stretch force over lymph capillary. It increases range of motion as well.

Lymph Edema Classifications

We differentiate between:

- Lymph Edema congenital (present at birth)
- Lymph Edema praecox (starts to develop from puberty to age 35)
- Lymph Edema tarda (develops after age 35)

Classification by Cause:

Primary Lymph Edema (ca.10%) due to a congenital absence of Lymphatics or congenital obliteration of the thoracic duct.

Praecox Lymph Edema occurs when some functioning Lymphatics are present but not in adequate numbers to return flow as the child grows.

Secondary Lymph Edema or acquired Lymph Edema occurs due to the disruption of Lymphatics after surgery, trauma or radiation.

Neuro-Lymphatic Reflexes (Chapman's reflexes)

The Neurolymphatic Reflex correlates to the Sympathetic Nervous System. Whenever the neurolymphatic reflexes are blocked, the Sympathetic Nervous System is overloaded. Extreme or continuous stress causes "sympathetic dominance", or adrenal exhaustion, which weakens the body's immune defenses. The lymphatic system becomes impaired, lymphatic drainage blocks and metabolic waste accumulates.

- Painful lumps
- Neurolymphatic points become palpable

Touch for Health Kinesiology recognizes neurolymphatic reflexes as switches, which promote lymph flow changes via the sympathetic and spinal nerves. Neuro-lymphatic reflex points of the liver are mostly found anterior and posterior to the intercostal spaces. "These I mostly integrate into my treatments". The NL's are reflex points or switches, which effect changes in the lymph flow. The stimulation of the Neurolymphatic reflexes help the body to "turn on" the mechanism to aid the lymph flow, but not the flow of the lymph brings about the change, the stimulation of a specific communication system activates a whole series of impulses which "unblock" (remove static) and allow the body to communicate more effectively. During detoxification therapy it is most important to assure that the excretion of toxins from the superficial, the deep and the intermediate tissue layers is balanced. The removal of toxins from the tissues should **never** be faster than the possible elimination, to avoid unpleasant reactions select carefully.

Chronic Disease and Detoxification

Most chronic diseases are caused by intoxication which over the years triggered acute reactions suppressed with allopathic drugs.

- Minor intoxication of the liver, after repeated suppressive therapy can develop into malignant diseases of liver or other organs.

Fibrocystic Breast

May be a sign of hyperestrogenism or poor hormonal metabolism.

Polycystic Kidneys

Appendicitis, often caused by bowel toxemia, liver burden and constipation.

Chronic Pain:

Can involve the vascular, lymphatic, neural and humoral systems singly or in combination. An old muscle injury may gradually turn fibrotic. This in turn constricts the neighboring blood and lymphatic vessels and may compress both afferent and efferent nerves. Without the blood and lymphatic system to bring in the necessary tissue scavengers and collagen lysing agents the fibrosis becomes more and more pronounced. In the meantime the affected nerves transmit and receive with impaired efficiency, and the blood supply to and from the area distal to the obstruction is diminished. As the lymphatic system gradually backs up, the tissues proximal to the obstruction are not properly drained, and muscles may begin to exhibit some of the side effects of local lactic acidosis, and the condition gradually spreads. There is no single definition of pain, however, as with other medical disease entities, pain is usually a symptom of some other physical or even mental abnormality. The roles of nociceptive impulse neurotransmitters such as acetylcholine, substance P, serotonin, bradykinin, dopamine and some of the prostaglandins are gradually being clarified. The complexity of the receptors, and how they initiate the electrochemical neural impulses, which the brain translates as 'pain', is a study of its own.

Chronic Tonsillitis and Enlarged Tonsils:

Indicates lymphatic insufficiency (tonsils guard against ingested or inhaled intruders).

- Requires long term support of liver, kidneys and immune system. Manual Lymph Drainage often improves situation.

Substances that directly enter systematic circulation through the skin in a dissolved solution, diffuses into extracellular fluids and

then through the lymphatics. Substances readily absorbed include oxygen, carbon dioxide, fat-soluble vitamins, steroids, plant resins like poison oak and poison ivy, paint thinners, & heavy metal salts.

Specific Industrial Toxins:

Chromium
Nickel
Acids
Radioactive Substances
Arsenic
Aluminum

Special Environmental Toxins:

Insecticides
Pesticides
Fungicides
Herbicides
Dyes
Preservatives
Petrochemicals

Vaccines

Tetanus
Diphtheria
Small Pox

Iatrogenic Toxins:

Antibiotics
Corticosteroids
Gold
Hormones
Psychotherapeutics
Neuroleptics

Improving Lymph-Flow by Supporting the Liver

Lipotropic Nutrients:

B-vitamins: choline, inositol and methionine
Milk Thistle
Turmeric (curcuma)
Red Root
Dandelion
Burdock

The liver has to metabolize hormones and fats in circulation as well as removing wastes from the bloodstream, which explains why liver disease may lead to hyperestrogenism and fibrocystic breast.

Improving Lymph-Flow by Increasing Circulation

Therapeutic Massage, Myofascial and Deep Tissue Massage assist to remove accumulated lactic acid and waste products from the muscle by increasing the arterial blood flow, which might be contraindicated in cases of lymph Edema of all classifications due to increased release of fluid into the interstitial spaces. Massage is well indicated in cases of lymphostasis due to stress, lack of physical activity or general adhesions.

Hydrotherapy

Use of hot or cold wet packs of different sizes.

Fango or Clay:

The drying action of the wet clay draws toxins out of the tissue for absorption into the clay.

Hot Towels, Wet Towels or Lavender Towels:

Promote oxygenation, detoxification which increases the body's immune defense.

Hydrotherapy describes the strategic use of water for therapeutic use. Temperature is most important ranging from hot to ice application. Hydrostatic pressure plays an important role as well.

Mud Bath:

Extracts from clay and earth samples have powerful antibacterial properties by binding toxins with function of heart and kidneys as well as heat regulating centers remain undisturbed. A 39 degree Celsius mud bath has stimulating effect on metabolism, absorption of inflammatory masses and regeneration of tissue.

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Basic List

- Amino Acids
- Bacteria
- Enzymes
- Molds & fungi
- Phenolics

Basic List

- Hormones
- Vitamins
- Flower essences
- Matrix

Begin scan

- 1. In results:
 - Print the top 100 falls.
 - MPRS.
 - Duration.

Review Data

- Compare the greatest Falls to the MPRS and Duration.
- Highlight the common relationships.
- Load to single channel all substances that you wish to address.
- GO TO SINGLE CHANNEL.

Single Channel.

- Go to Work Set.
 - Click to active (do not highlight).
 - Test all points that might be affected.
 - Lungs, lymph, nerve, heart, allergy food, allergy chemical, sugar metabolism.

Active hold.

- Highlight hold tank.
- Set potency to 1v.
- Recheck points
 - (In most cases the points will change substantially).
 - Insert into hold tank 1

Create New Hold Tank.

- De-activate Hold tank 1

Create New Hold Tank.

- Go to Mini Scan of Work set, by pressing Alt and F1 keys.
 - Click mini scan, and a dilution will appear at the top, (highlight) and double click.
 - Now a potency set will appear, click Mini scan again and a potency will be selected by the unit. Highlight top potency and double click.
 - You will now be asked which Hold Tank to load too, (load to Hold tank 2).
 - Repeat this process 3 times.

Retest affected Points.

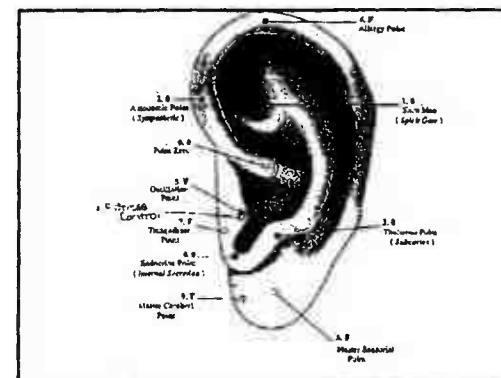
- Recheck the points that showed the most deviation in the original test.
- If points are balanced at this time move on to the clearing process.
- If not, repeat the steps of loading from work set 4 more times (loading approximately 7 sets in hold tank 2).
- Recheck points. (generally points will balance at this time).

Balance body.

- Step 1.
 - With client holding brass conductor and the second hold tank active, have them cover with their thumb, the nail beds of the little finger and the ring finger.
 - Using a laser pen hit and hold light on the allergy point in the ear (either one) for at least 15 seconds.

Balance body.

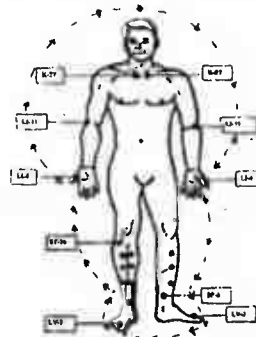
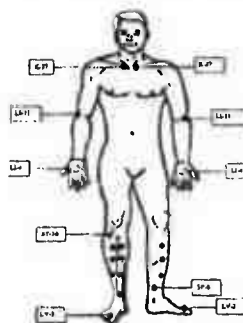
- Step 2
 - Repeat the process, only now have the client place their thumb, ring finger and little finger with tips touching tips.
 - Again using the laser pin hit the ear point for allergies.
 - (These two steps balance positive and negative polarity).



Balancing the body.

Step 3.

- Again with client holding active brass conductor, starting on the Right side physically stimulate the acupressure points starting with LI-4, LI-11, K-27 right, K-27 left, LI-11, LI-4, ST-36, gently squeeze on both sides of the tibia (moving down) about 3 movements, SP-6, LV-3 left, LV-3 right, SP-6 right, moving up the tibia (3 movements) to ST-36 and finishing on LI-4 right.



Balancing Body.

Step 4.

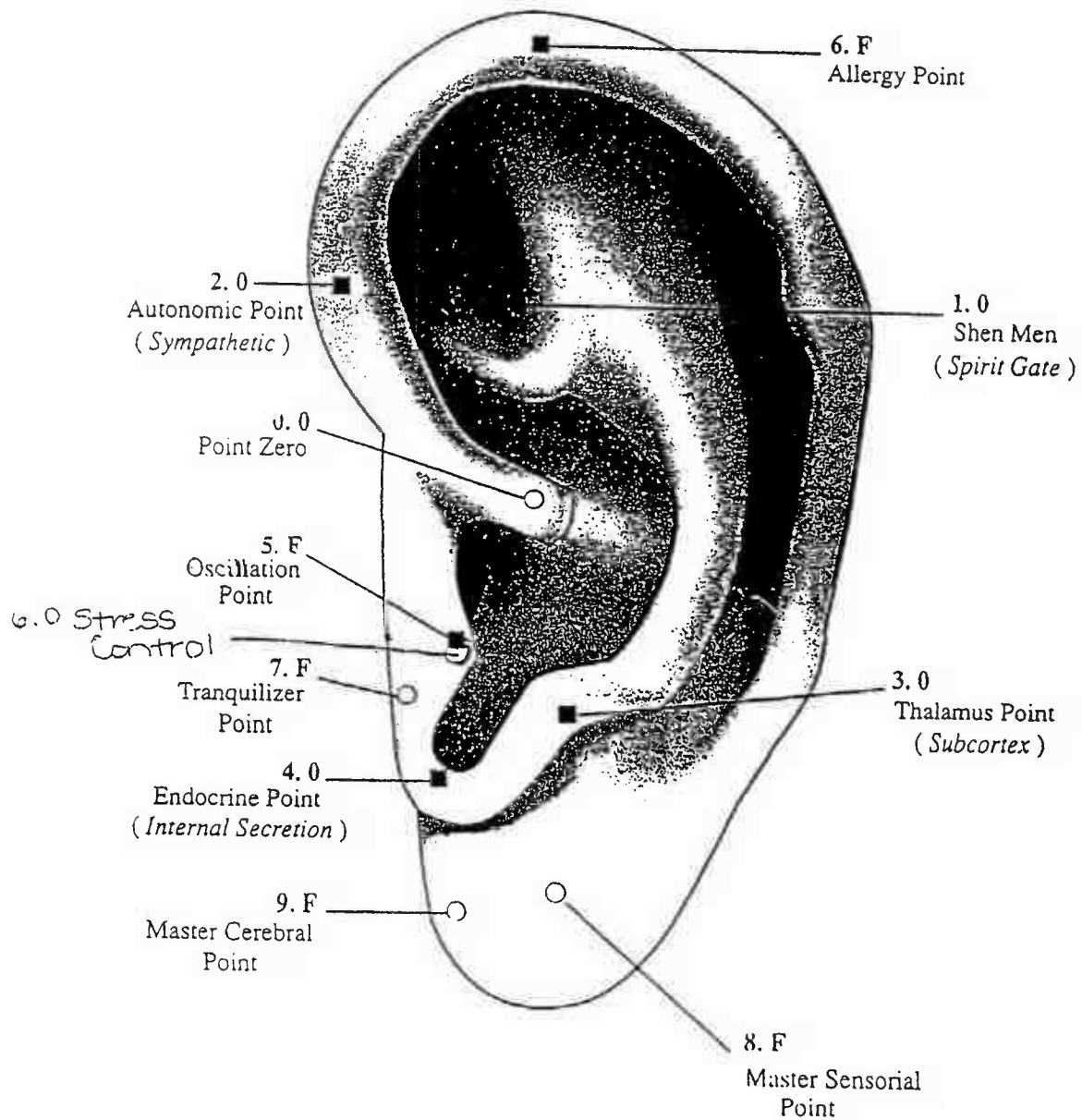
- Attach the right middle-finger to the harness middle-finger conductor.
 - (this will make the unit output a sound, indicating that a circuit has been established with the Phazx device.)
- Now click the Imprint icon and allow the vibration load to reset the body.

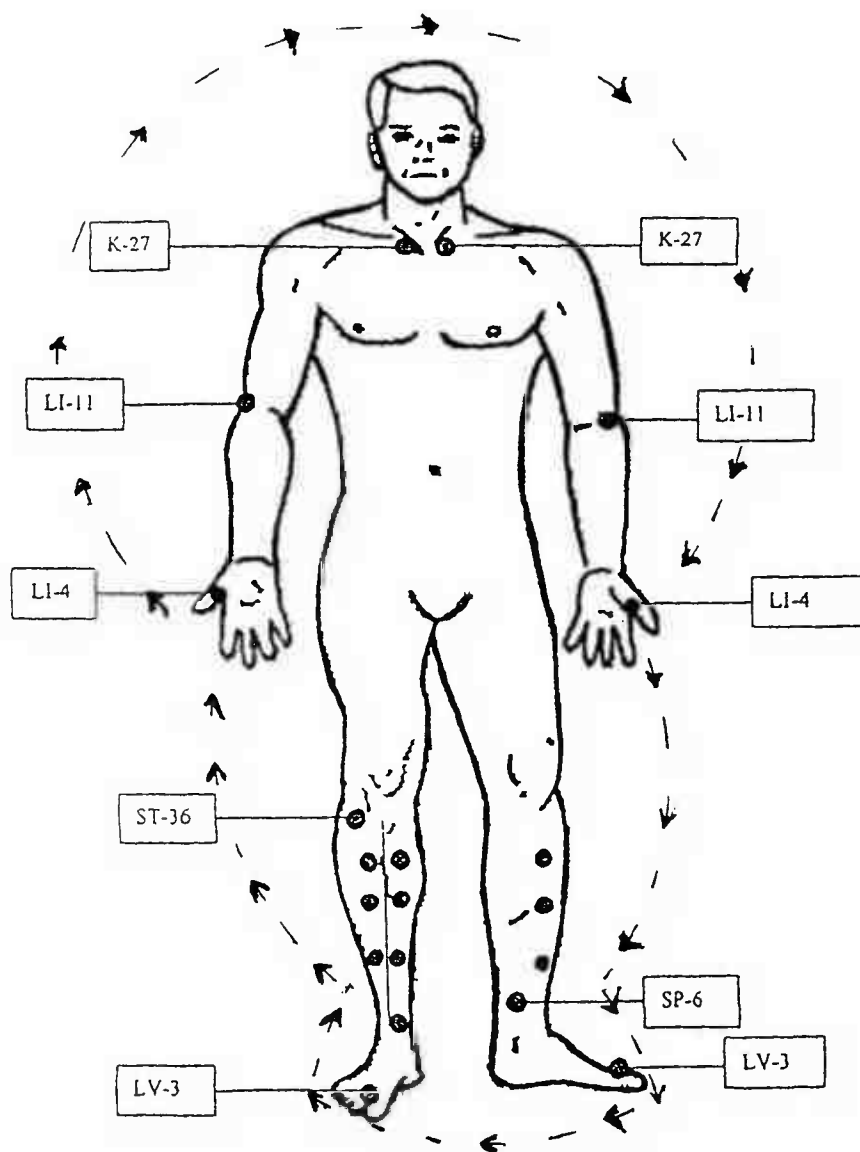
Recheck

- After the load, remove the harness strap from the finger.
- De-activate the hold 2 Tank.
- Activate the hold 1 Tank.
- Recheck the points.
 - If the process was complete, all the points should be balanced.

However!!

- In about 85% of the people this will provide major improvements in the allergenic symptoms.
- In about 15% of the people with deep seated allergenic burden a phenolic must be used. I find that The Phenolics from Deseret Biologicals work well. They can be reached at (800) 827-9529





SEQUENCE: (CLOCKWISE)

RIGHT: LI-4, LI-11, K-27, LEFT K-27, LI-11, LI-4, ST-36, SP-6,
LV-3, RIGHT LV-3, SP-6, ST-36, LI-4