

The area in which I have found the greatest disparity is in the efforts of lucid explanation of what actually occurs in Qigong. I have seen and heard explanations ranging from Qigong being "nothing more than deep relaxation responses," to something to do with controlling the electromagnetic fields from and surrounding the earth. I, myself, have tried to research with as scientific-a-mind as possible, what is really occurring.

The process has often felt like an archeological expedition. I feel excited when I unearth some small tidbit of information possibly relating to the health practices of Qigong. Keeping in mind the different levels of interest and technological knowledge possessed by potential readers, and trying to keep as scientific as possible, I would like to elucidate on a physiologic mechanism that I feel is responsible for some of the health benefits noted from the practice of Qigong.

First, I would like to take a moment to give my definition of *scientific*. To me, it is synonymous with truth. If it is true, it is science. Of course, many things are true according to the person's perception (i.e. Is a specific painting "art" or not?). However, many things are not perception-based. Such things are not necessarily validated by a consensus of "people in the know." For example, many contemporary scholars of the Wright brothers felt it was impossible to create a flying machine. But the outcome of the Wright brothers' attempts were not dependent on the belief of such "scientists." Similar things have occurred frequently in history (example: Man going to the moon). Some continue to disbelieve even after the event occurred. So in writing this article, I will try to stay with what I "know" is true, avoiding speculation.

At the same time, I won't be discounting the theories of others. Just because I have not seen or done something does not mean it cannot be seen or done. It just means that I have not seen it or done it.

The human body, to a large extent, is electric. The brain is similar to a car battery, in that it is a hollow box filled with electrically charged fluid

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and it sends its electric charges down wires called nerves. We also know that each individual cell in the body is electrically charged. To keep these little electric cells powered, they must convert glucose to energy. Also, the potassium inside the cell must be kept high and the sodium must be kept low. Excess fluid and sodium are bad for the cells.

Too much fluid in tissue may cause edema and swelling and can be uncomfortable. Sodium affects fluid retention. Many people with cardiovascular problems are advised to restrict their salt intake. Blood pressure is affected by the amount of fluid in the vessels and draining excess fluid puts a strain on the kidneys. To use a simple analogy, too much water damages a farmer's crops and can also damage human tissue.

The blood proteins of albumin, globulin, and fibrinogen help keep water in the blood stream by what is known as osmotic pressure. Because of electrostatic charges, proteins (which are negatively charged) pull positively charged sodium to them. This pulls water in a related fashion.

Blood passes through larger vessels into progressively smaller vessels until it reaches the smallest vessels known as capillaries. In the capillaries, the exchange of gases and nutrients contained in the blood occurs with the surrounding tissues. Capillaries are so small that single normal sized red blood cells can pass through only one at a time. Capillaries have pores that allow dissolved material to pass through but these pores are too small to allow red blood cells to leak out (under normal conditions).

Dissolved blood proteins will leak out of capillaries into the interstitium. The interstitium is the space between individual tissue cells. If each cell was a separate room, then the interstitium would be the hallway between. If each cell was a separate crop field, then the interstitium would be the irrigation canals running between them.

Once in the interstitium, dissolved proteins cannot just easily jump back into the blood stream because of the aforementioned osmotic pressure. They must return via the lymphatics.

In several encyclopedias, it has been written

know of involve deep breathing. Concentration of the mind is also important.

Trapped proteins can become denatured also. Proteins can become denatured when they are in too acidic of an environment. Our body can (and most American's bodies have) become too acidic from our sugary, preserved, carnivorous diets. Tissues can also become too acidic from an increase of carbon dioxide, an increase of lactic acid, and a decrease of oxygen.

Due to the changes of electrical charges at a small localized tissue level (due to trapped electrically charged proteins), the influx of positively-charged sodium and the associated decrease in oxygen can accelerate. Ion transfer in our body occurs, to an extent, due to electrostatic repulsion and attraction. Trapped proteins cause things to cluster and become difficult to move.

Trapped or clustered protein can be dissipated by correct electrical fields of varying sorts. Many chiropractic physicians, physical therapists, and the like, have found this true from clinical experience. The application of therapeutic ultrasound, electrical muscle stimulation (ex.TENS), and similar methods, have been clinically effective for removing pain and edema. Acupuncture has also been shown to cause small bio-electrical changes in tissue.

It is also possible that improper electrical fields can cause a worsening of the problem. Statistics show that people who live around high tension power lines or work around unusually strong electrical fields may be more likely to have certain health problems.

Dr. Samuel West wrote an equation to explain some of these processes. Briefly: "life processes in our bodies = electrical energies". [It is true if you remove the electrical source (the brain) we die. If you pinch (compress) or cut a nerve (electrical wire) to any tissue or organ, the organ will malfunction or die to some degree as a result. That is why Chiropractic has reported remarkable cures of individuals suffering from certain illnesses. Chiropractic removes irritation of nerves occurring at the spinal cord level where the majority of nerves exit the central nervous system. At a

cellular level, if there is interference with a cell's individual electrical field, it will start to malfunction.]

Our electrical energy = our delicate mineral balance. [We have already discussed briefly how certain minerals have specific electrical charges. Potassium is negatively charged, sodium is positively charged, oxygen (which is an element) is negatively charged, etc.]

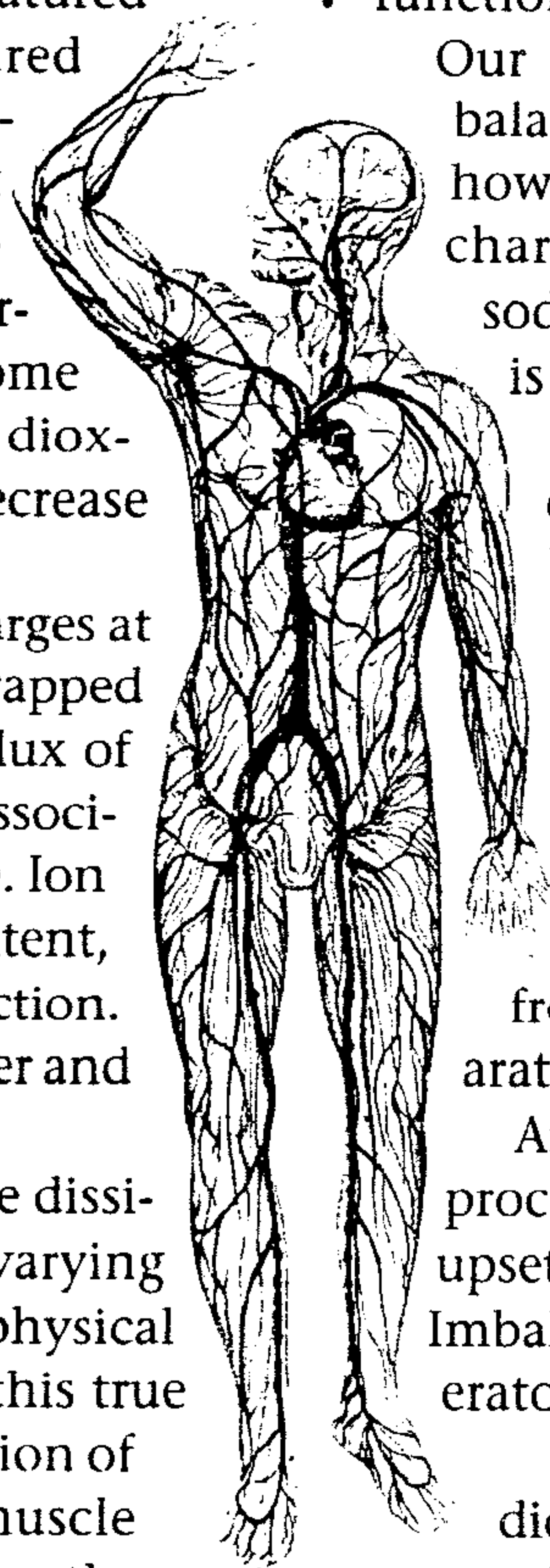
Our sodium and potassium pump = our electrical energy. [This pump works in our body to separate the charges. In a car battery, we have a separation of charges that provide the battery's energy as the current runs from one charged area to another. The battery runs down if the charges lose their separation. We can recharge a "dead battery" by jumping it from another car, which causes a new separation of charges.]

An upset electrical balance = an upset life process. Excess fluid, excess sodium, etc., will upset the electrical balance around the cell. Imbalances will upset the little electrical generators.

In one published research study that I did, I evaluated the changes in skin electrical charges that occur when doing a specific form of Qigong. I did this by measuring changes in electrical resistance on specific points on the skin. The points I used as reference points were the *Yuan* (source) points.

These points are acupuncture points that exist on the wrist and have been accepted for quite some time to be areas of lowered electrical resistance (increased conductance). There is a method of acupuncture evaluation that uses an instrument to measure these subtle electrical changes. This method is called "Ryodoryaku." Acupuncture treatments are then prescribed according to the findings of the readings. This form of evaluation simulates the traditional method of evaluation known as a "pulse diagnosis".

The instrument that I used is called an EMI (electro-meridian imaging) and has a calibration control to take into account the factors of ambient and dermal moisture when measuring (as these affect skin conductance). Measurements too low or too high are considered bad. Acupuncture has been shown to balance out improper electri-



Major Veins & Lymphatic System of the human body

—Kodansha (Japan)

other unwanted growth...this germ proliferates, and the resulting garbage that is produced overloads the lymphatics and clogs them. Others would suggest another route: our lymphatics don't drain properly because of trapped proteins and the related events. As these drainage pipes start to back up and overflow, the tissue (crop fields) become weakened and ripe for an infection to start.

The second analogy is the trapped proteins being like driftwood getting stuck in the irrigation canals and causing the water to back up. The canals then overflow into the crop fields. This damages the crops and also creates a marsh-like environment in which malaria and other diseases can flourish. If we drain the swamps, we eliminate the environment that allows water-born diseases to thrive.

Another place for the blockage to begin is in the liver. It is one of the biggest detoxification plants in our body. It is loaded with lymphatics. If the liver becomes congested from too fatty of a diet, or other reasons, it can subsequently affect lymph flow. Then the tissues and the blood can become toxic because of poor drainage.

I believe that like many circuits or loops, the process can break down either way. The body can get a harmful pathogen, too many food preservatives and toxins, or many other such things, and as a result, the lymph can overload as a symptom.

Conversely, the lymph drainage can become blocked as a result of a too sedentary lifestyle, scarring from a recent surgery, physical collapse of a vessel from an injury, or from trapped proteins. It follows that the area is then set up to have disease grow there.

I personally witnessed the massive flooding that occurred about a year ago that made headline news in papers and television around the country when the Missouri River overflowed its banks. In such a situation, pestilence and disease can flourish for a wide variety of reasons. Similar things can occur in the body from inappropriate fluid build up and retention.

In Dr. Samuel West's book, *The Golden Seven Plus One*, he quotes Elisa Buenaventura, who had a decade of research at Boston University Medical

School, Tufts Medical School, and Southwestern Medical School in biochemistry, biophysics, cell biology and cancer:

Any medical researcher who has worked with tissue cultures knows that cells can be kept alive indefinitely...

"Any Medical researcher who has worked with tissue cultures knows that cells can be kept alive indefinitely, but you must keep the proper chemical balance in and around the cell and eliminate the waste products of their metabolism. Cells are meant to be eternal. They should not die or degenerate if their environment is kept clean, nutritious, and chemically balanced".

To keep them clean and chemically balanced is one of the functions of the lymphatic system. Qigong, through its deep breathing and patterned muscular movements, can accelerate the process.

Ancient Taoist Qigong experts believed that Qigong was "Nei Dan" or the internal elixir of immortality. They believed

they could achieve immortality from Qigong. While I personally believe it is appointed for every human to die, I also believe that Qigong may be a valuable tool for the extension of life. While several articles report of actual experiments in which there were human tissue cultures "that wouldn't die," the same thing does not seem to hold true for humans in the real world. Probably partly because we are not as shielded from contaminants and pollution stressors in the same way as a petri dish. We are constantly bombarded with electric pollution, smog, mental pollution (bad thoughts), impure foods (fast foods), etc, etc, etc.

Interestingly, in Zhang Dai-zhao's book, he lists two other factors in traditional Chinese medicine associated with cancer growth, those being: "disturbances of the seven emotions" and "dietary irregularities." Again, more evidence to eat good food and think good thoughts (love thy neighbor, pray for those who curse you, forgive those that spitefully use you, and do not get caught up in jealousy, anger and hatred).

In traditional Chinese medicine, Qigong has retained a special place as a treatment method. Many readers may logically think that any exercise involving body movement and deep breathing would affect the positive changes we are talking about (and not just specifically Qigong). However, that has not been observed to be necessarily true.

Many have reported about external Qi projection. This involves one person supposedly emitting Qi from their hands to heal another. If a person's bio-electrical field extends up to 35 feet, could such healing be the result of the dispersion of trapped proteins caused by the healer's bio-electrical field? Could much of the effects of massage be due more to the micro-current of the electrical energy from someone's hand rather than simply a mechanical pressure and friction?

Could trapped proteins be the cause of such chronic painful conditions such as fibro-myalgia (myositis, myalgia, etc.)? Could this explain why ultrasound, massage, Chiropractic, and other such therapeutics have a beneficial effect on fibro-myalgia?

Most of us at one time or another have gotten an "owie" (also known as an ouchie). We tend to press or rub owies. For example, we bang our finger with a hammer and we automatically squeeze, suck, or rub it. Many have had a stomach ache and will notice they rub or press over their stomach. Could trapped proteins and the local change in bio-electric fields be the reason behind this natural reaction?

Could this be a partial explanation of tension headaches? In other words, we get stressed and think bad thoughts which create the events explained above, which then result in painful muscular problems.

Could our body's cells live forever? I have already expressed my views on that. But if we were free of pollution, stress, electrical fields (in other words, live in a veritable Garden of Eden), how long could we live?

Hsing-Yi is a form of Kung Fu that has a heavy emphasis on Qigong. Its name literally means "Mind Form." It indicates a type of intent or mental focus involved. How much does the electrical field of our brain/battery (aside from the good/bad nature of our thoughts) affect our balance? The mind is used heavily in all Qigong to control the flow of "Qi." How much effect of the affect is due to imagination and how much is electrically induced? How much does the electrical field in our peripheral body tissue affect the currents in the brain?

I don't know, but we do know that we are electrical. I know that trapped proteins do occur and cause painful problems. I know that such adverse conditions can create other health problems. I know that lymphatic drainage is essential to the good healthy environment of individual tissue cells. I know that good thoughts are important to good health. I know that eating too many Twinkies (even vitamin-fortified Twinkies) can create a toxic imbalance for our bodies to deal with.

Trapped proteins are not the only reason for ill health, but they can have far-reaching consequences. If trapped proteins cause the lymphatics to "clog", then that can subsequently affect the liver and colon where there is a high internal density of lymph vessels and therefore a close relationship with the lymph system. If the colon is affected, then our normal

colony of good bacteria can be thrown out of balance. Our normal bacteria is involved with our immune system as well as the production of certain vitamins. Also, if the liver develops problems, our delicate enzyme balance can be thrown off, as well as our digestive processes. The results of such problems with the colon, our good bacteria, and our liver, can be very far-reaching.

The best medicine is preventative. A good friend of mine, Sam Reader (possibly the smartest man that ever lived), once relayed to me that he had an uncle who drove the old steam trains. He asked this man what he feared most while driving the trains (thinking it would be a car on the tracks, a cow, or something big). His uncle told him what he feared most was a baby pig. Shocked, Sam asked why. His uncle told him that a train would just blow a car or a cow off the tracks, but a baby pig was so small that you could hardly see it, and it would slip under the cow catcher in the front. Once underneath, it could derail the train. The lesson in life being that it is the little things that keep us on track....or derail us.

So with those facts in mind: Good thoughts, Good exercise and Good food.

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If it can be shown that the body responds best to micro-current, then what about the micro-current produced by our human electric field?