The Science Behind Tai Chi and Chi Gong: Why They Work
by
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Eastern esoteric tradition states that we are in an age called the Kali Yuga, a time of heavy materialism; there is validation for this when you look at our society and the world at large. For most people, the senses control the mind and the mind controls the body; they only relate to reality through the five senses, i.e., they believe in only what they can touch, taste, see, hear, smell. This is a mistake or, at the very least, a limiting view of the world which inhibits many from achieving the health and potential of which they are capable. Very few reverse this senses-mind-body process to journey on the tao of subduing the senses and disciplining the mind to message the body in the pursuit of higher goals. We are not physical beings on an energetic journey; we are actually beings of energy on a physical journey in this life. Accepting this is the very beginning of an exploration, an exciting journey through life because such a perception frees us from a view that makes life appear to be static, mundane and boring. Instead of plodding along through life with a view that we are powerless over our health and well-being, there are levels to us beyond the physical that influence us and which we can have influence upon. Esoteric philosophies state that beyond the physical body are subtle bodies, best understood in terms of energy. In fact, the invisible double of the human body has actually photographed through the use of Kirlian photography. The practice of disciplines like yoga, tai chi, chi gong, acupuncture and other types of body work influence on a level more than just the physical. Understanding this is the beginning of opening the door to understanding the mechanism behind tai chi and chi gong and why they work to produce positive changes in a practitioner. It is said in esoteric literature that the etheric sheath is a subtle energy body that serves as the vehicle for qi or life energy and acts as intermediary between the physical and the astral or soul world. (1) In tai chi or chi gong or other practices used to promote health and healing, directed intention from the higher levels of the mind cause changes in the etheric level which consequently manifest in the physical. (2) It is said in practice that where the mind goes, the chi follows. This can be both beneficial and detrimental. The down side is when there is too much mental activity, worry and, subsequently, stress; in such a state we tend to block energy flow and hold it in our shoulders, neck and head. In other situations where there may be dis-ease due to lack of movement due to sedentary lifestyle, repetitive stress on a body part, or improper diet or toxicity due to substances, stagnation of energy flow takes place causing awareness of lack of wellness. When there is stagnation of chi or energy flow in
the body, pain and discomfort set in, and over time, such condition can become
chronic or “locked in”. This especially occurs in the joints of the body:

**This type of flow is a little peculiar in that, if it slows down too much, it
can become very viscous so as to partially convert to etheric atoms and
molecules and form a gel-like state that blocks the energy flow. The
body joints, because they are density discontinuities in the system, are
impedances in the flow so etheric energy flow stagnation is most likely
to occur at these locations.** (3)

By practicing tai chi and chi gong regularly, the chi or “etheric-type flow
of…radiation” (4) is kept moving in a free-flowing manner so such build up is not apt to take place. Also through practice, over time, one gains self-awareness and stagnant attitudes of resignation give way to empowerment and the realization that there really is more to us than relying only on our five senses has led us to believe. Practitioners of tai chi and chi gong learn to take responsibility for their health and for themselves as an ever-expanding positive feedback loop of practicing spurred on by evolving well-being motivates them to continue moving forward ever driven by new learning and new interest in exploring. Part of this feedback loop comes from the natural “antenna” of the body. One such set of antenna are the acupuncture points. Experimentation has shown that acu points or tsubo act in much the same way that a monopole antenna functions in radio reception. In fact it has been suggested that electromagnetic frequency radiation as well as other subtle energies in the environment “communicate with the internal physical and subtle
substance of the body via” the network of acupuncture points of the body. (5)

These influences affect “the hormonal factories of the endocrine glands and vitalize the central nervous system…the overall process…vitalize(s) all the body’s organs and systems…so that it functions as an integrated and harmoniously balanced vehicle for human experience.” (6) One such point especially is Pericardium 8 known as the lao gong, located in the middle of the palm. Holding the palms facing each other while in standing or sitting posture gradually lowers internal resistance to the flow of energy in the circuit created in the arms, and the biological current flow of the three yin and three yang channels found in each hand increases. Through the antenna-like functioning of the lao gong, this energy gate or door can both take both take in and give out energy. Yang energy can be drawn from heaven or yin from earth, or energy can be put into the kidneys to enhance the water element.

**DIRECTED INTENTION**
One of the motivating factors that those who practice tai chi and chi gong come to understand is that very real changes take place in the body through practice over time that is generally perceived or expressed as “feeling better”. When one practices, generally there is a focus or intention that is established by the teacher that is carried forward by the students not only in class but in their own private practice as well; this focus or intention coming from the mind is a most important factor in practicing tai chi and chi gong, and the lack of it actually slows one’s progress in practicing and can cause injury when physical tasks are carried out with lack of awareness. “Maintained intention can produce structural changes” in a body part or organ “to enhance its level of functioning.” (7) The reverse is also true where dysfunction occurs in the body. If a part of the body is subject to continuous strain or stress without positive directed intention as in repetitive tasks, inflammation can set in which can lead to a chronic condition or dis-ease in the body part affected. According to Dr. William Tiller, healthy stability in the body is maintained by chemical homeostasis which in turn “is kept stable by a pattern of electrical and magnetic potentials…” (8) In other words, if there is stress in a particular part of the body over a period of time carried forward with directed intention, “the physical strain field probably interacts with the electrostatic field of the system…producing certain field changes, and these changes cause ions and molecules to be carried to specific locations” (9) which can affect positive changes in body structure. This rule especially can be seen in Wolf’s law (which Dr. Tiller is specifically referring to here). In the 19th century, surgeon Dr. Julius Wolff theorized that as loading or stress on a bone increases, it will respond by adapting and increasing mass (the reverse has also been seen in astronauts where the body reabsorbs mineral material since gravity hasn’t been exerting load stress on the skeletal system) (10) Herein lies the foundation for one of the main health benefits of performing tai chi. The muscles and tendons that wrap the bones exert stress and the skeletal system responds by becoming stronger. This especially good for older people who tend to have bones that become brittle through a more sedentary existence. “Because collagen, tissue and bone are all piezoelectric materials…small stresses…generate…electric field patterns” and produce low level electromagnetic fields “produced by the sound wave patterns generated” (11) by moving tissue. The human body has a type of antenna system of which the acupuncture points are an integral part; every cell of the body, every body part and system transmits and receives between themselves and with the outside world. (12) When there is “no correlation between the movements of the various sized body parts, there is no integration in the system and the signals given off are perceived as only “white noise” like so much static on a radio. (13) However, when there is a coordination of movement, as in tai chi or chi gong with directed intent, because “the greater is the degree of correlated movements between different sized body
parts, the more pattern-like is the total emission,” and “the greater is its
information content and the more integrated is the system.” (14) In other words,
through constant practice of tai chi the benefit comes from a positive feedback loop
that continues to build and expand the more and more one practices. And the
quieter the mind becomes in practice, the more like a moving meditation your
e xercise becomes, whether tai chi or chi gong sets; the greater the communication
develops between the bodily systems because one’s mind chatter or internal
dialogue interferes with the transmissions mentioned above just like a noisy radio;
one must tune out the discordant frequencies until that one clear station comes in.
Becoming “centered” and quieting the mind in practice comes only with practice,
and this is important because the more we can move in this direction, the more and
faster positive changes in the tissues of the body will be achieved because more
free flow will come from the higher levels of the mind. It is especially the intent
coming “from the higher levels of mind that cause the changes in the etheric and
consequently in the physical.” (15) Herein lies the reason (often not given by
teachers) for practicing many repetitions of a form or for doing a chi gong set for
100 days. Throughout the body, “millions of cells die and new ones are born every
moment…cells…born in the presence of (an) influence field (tend to) orient or
polarize themselves to be more closely aligned to…the influence of this intention
field…If persistent application of this specific intention field is continued,
eventually all the cells…will have been born under the influence of that
field…then the intention field may be removed and that portion of the
consciousness can be directed to work elsewhere…because (the body) will now
respond automatically in this new ideal way…” (16) This is the essence of
practice!

THE NEED FOR A TEACHER

Understanding the body as an energy transmitter and receiver leads us to an
explanation of why it is important to have a teacher and to learn in a group setting
rather than trying to learn from a tape or dvd when learning tai chi or chi gong.
Once again turning to the work of physicist Dr. William Tiller, he gives the
analogy that each person has a frequency at which they vibrate which can increase
as they evolve through practice and meditation: “the higher the frequency of the…
(individual)…the greater is the inherent bandwidth and thus the…communicating
capacity of the entity.” (17) In other words, assuming that a teacher is competent
(has done their work learning from their teacher and continues to practice and
evolve), Dr. Tiller states that, just as a high frequency carrier wave transmits
information for television, so a human being is capable of radiating the information
contained in their body-spirit-mind to others. A high level example of this is found
in spiritual tradition where disciples are able to receive a “boost” simply by them being in the presence of their Master. Now, many years later, I understand why one of my martial arts teachers from many years ago once said to us in class: “You don’t come here to learn martial arts; you come here to learn me.” What he was saying was that through association with him in classes, besides what he was teaching us physically, we were also absorbing through radiation the knowledge and expertise he had to offer. And if you add in the fact that gathering in a group is more powerful than acting alone, the reason, the necessity for learning in a class with others becomes clear. As Dr. Tiller points out, as systems (and this would include individuals coming together as a group) “couple together, or organize themselves”, the carrier frequency “is found to increase so that the information capacity also increases…Thus, we see that the level of human consciousness can increase quantitatively in a spectacular and predictable way as they cooperatively couple their fundamental frequencies.” (18) And that is what happens in a tai chi or chi gong class or any other class of their nature for that matter. Teacher and students “link” energetically for the hour or so of class and as the form is performed or the chi gong sets practiced, an energetic, unseen (but often felt) cascade of energy flows among all, transmitted by the body’s antenna system. One such system is the energy “cording” that is emitted from the dantien. Perhaps all this is best summarized into something more concrete and understandable if we look at sports and the “strange energies that players sometimes feel in the middle of a game” (19):

A few years ago I saw a basketball game that was a fascinating network of visible energy…Bright cords of varying width connected the Golden State Warriors at their middle. The lines all emanated from Rick Barry, making him look like something straight out of Castenada. Rick was glowingly…the hub of the team that night. The changing thicknesses of the cords extending from him indicated where his next pass was going, even when he was looking in another direction. The ball followed a remarkably predictable path down shining corridors of energy. (20)

On a physical level, the repeated act of doing a particular thing over and over again with intention stimulates unconnected nerve endings to organize and make new connections. “Electrical impulses…flow and information can be transferred along (these new transmission lines) “so that the brain may…know of the message that the sensory receptors have been trying to get through for so long…a continual ‘muscle-building’ type of process (takes place in our bodies) wherein greater and greater degrees of organization are developed…allowing us to function with ever-
growing capabilities.” (21) This is the fundamental reason why tai chi and chi gong work and why the practice of these ancient disciplines is a path of conscious evolution that accelerates practitioners into a new phase of self-awareness and health on their continuing journey through life.

FOOTNOTES


*Science and Human Transformation*, William Tiller, PhD., Copyright 1997, Pavior Publishing, Walnut Creek, CA, 2,3,4(p.167), 5(p.120), 6(p.127), 7,8,9(p.172), 11(p.107), 12(p.106), 13,14,15(p.107), 16(p.174), 17(p.180), 18(p.179), 21(p.175)

Wikipedia, 1,10

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