

PVMA Article #3

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Acupuncture

Acupuncture involves the placement of thin flexible needles (0.2-0.3 mm diameter) through the skin into superficial soft tissues (fascia and muscle). Needle placement is very specific according to ancient maps of the body surface, each point having a unique set of effects on both superficial and deep organs and tissues. Needles today are typically stainless steel with a copper, steel or plastic handle; they are sterile single-use, discarded with the sharps. The number of needles used depends on the patient's condition, with most point formulas ranging between 5 and 15 needles. Areas of surface inflammation or infection are avoided, but acupuncture at appropriate points elsewhere can aid healing of such areas. Dogs, cats and horses usually permit needle insertion without much fuss, either not reacting at all or looking back as if bitten by a flea. As in human acupuncture though, some points are more sensitive, requiring very gradual insertion or acupressure instead.

Modern research into the body's bioelectromagnetic properties has yielded some interesting results that suggest possible mechanisms for acupuncture's effects. The skin at most acupoints exhibits both greater electrical conductivity and capacitance than surrounding areas. The same qualities exist along the acupuncture meridians – the “lines of flow” that connect functionally related points. When a metallic needle is put into contact with body fluids it creates a simple battery; the resulting microcurrent is greater when bimetallic needles are used (e.g. stainless steel shaft with a copper, brass or gold handle). Microcurrent may also be generated by the deformation of underlying fascia; studies suggest that the regular protein structure of connective tissues is capable of both a subtle form of piezoelectricity and semi-conduction. Research also suggests that acupuncture meridians follow lines of condensation of the body's electromagnetic fields. The meridian system may represent a bioelectric communication network more primitive than and basic to the nervous system, capable of responding to stimuli as dense as mechanical distortion and as subtle as electromagnetic fields.

Based on the idea that acupuncture works by balancing the body's charge distribution, some techniques have emerged that rely solely on electrical measurements for point selection and treatment, disregarding traditional Chinese medical theory and philosophy. The danger in this simplified concept is twofold. First, it relies on equipment that may not be accurate or sensitive enough to create a complete picture of the body's subtle electromagnetic landscape. But more importantly, it presumes to reduce the entire complexity of Chinese medical theory, and the body-mind, into an order of positive and negative charges. Ancient concepts of yang and yin are not so simple. What has given Chinese medicine its beauty and longevity is its ability to address the complexity of living beings in a reflective rather than directive way, using the metaphors of nature to describe dynamic patterns of behavior, rather than relying on static definitions of material things and their properties.

Chinese is a pictographic language, which means that words can be interpreted differently depending on the context and the viewer – a word chosen purposely to convey the act of looking at a painting, which is an entirely different experience than reading a sentence. There is a wealth of possible meanings. (Romanized versions of Chinese characters, like *yin* and *yang*, are phonetic spellings created for Westerners.) The concept central to Chinese medicine is qi (pronounced “chee”) whose ancient pictograph is a combination of two different images, one depicting grains of rice, the other curling clouds. The rice appears enfolded in the clouds. Together they suggest several possible meanings: the most subtle form of that which sustains existence, the kernel of things and their ever-changing expressions, that which is capable of being both

expansive and shifting as well as finite and stable, matter enfolded in patterns of behavior, the most basic mutable form of manifestation. Common translations in Western literature include psychophysical stuff, energy-matter, pneuma, and many others. In quantum terms, qi is both matter and energy, particle and wave, and may be thought of as probabilistic rather than deterministic. All things and events are simply various dynamic forms of qi. Resonance between related forms interconnects seemingly disparate structures and processes into patterns of natural behavior that the Chinese describe in five phases or movements (Wood, Fire, Earth, Metal, Water). Yin (whose pictograph depicts the shady side of a hill) and yang (sunny side) merely describe the relative and complementary properties of these forms, rather than define opposing forces. The cyclical emergence of qi into its various manifestations is depicted in the yin/yang symbol, all things involved in an ongoing interplay of co-creative transformation.

Each of the five phases unites various resonant forms of qi, both within and outside the body. The Wood phase not only includes the season Spring and the climatic element of wind, but also the liver and gallbladder organs within the body as well as related tissues (like the small muscles around joints), and even certain emotions like anger and frustration. (In Chinese medicine flesh and bone are simply expressions along the same continuum as thought and feeling. Each bilateral acupuncture meridian, named for its associated organ, connects functionally related areas and actions of the body from its depths to its surface and is needled to harmonize their qi.) The pictograph of a tree, translated as Wood, suggests a constellation of behaviors related to these organs. Trees move gracefully in the breeze, and in the body the liver (yin, solid organ) and its partner the gallbladder (yang, hollow organ) are responsible for the harmonious flow of things, contributing to smooth digestion, graceful movement of the limbs, and an even temper. These are the primary organs treated in cases of epilepsy, in which convulsions take the appearance of a gale force wind blowing the limbs about wildly. They are also treated in cases of anger, as constraint (whose pictograph literally means tree in a box) causes pressure and rebellion. Similar metaphors with the natural world abound in Chinese medicine, and are used to assess disease patterns and to plan treatments. They also serve as a guide for living.

These concepts may seem far removed from the Western understanding of liver and gallbladder function. However, close correlations do exist. For example, trees store sap (their nutritive fluid) with healthier trees having better quality sap; similarly the liver is said to store blood and contribute to its nutritive quality. Liver blood that is deficient in either quality or quantity results in dry and brittle nails and tendons, menstrual problems, poor vision, and dull hair. It is also said that blood returns to the liver at night which is necessary for rejuvenating sleep. From a Western perspective, the liver actually has tremendous blood storage capacity, serving as a capacitance reservoir, and is able to compensate for a 25% loss of blood during moderate hemorrhage. This reservoir is indeed affected by posture. The liver also stores such important nutrients as glycogen, vitamins and minerals. "Liver blood deficiency" and "liver qi constraint" are very common disease patterns in modern society, as we are not exactly the *free and easy wanderers* described by the Wood phase of ancient times.

The five phase organs and functions create an intricate web of behaviors and interactions that the practitioner must understand and help to harmonize. As healing progresses and core issues surface, functional patterns shift, so acupuncture point and herb selections require adjustment throughout the course of treatment. Acupuncture sessions are typically more frequent in the early stages of treatment, and are gradually tapered out as the patient improves. With each repetition the benefits of acupuncture last longer. Clients can also be taught acupressure points to use at home, enabling added benefit between sessions and enhancing the human-animal bond. Finally, acupuncture can be added to any other treatment regimen to complement its effects or moderate potential side effects. It is an extremely flexible and effective modality.