MIND & Body

The Bio-Energy of Healing

By John F. Barnes, PT

What does the electromagnetic field of the human have to do with healing? Everything! I suggest that every therapist read *The Body Electric* by Harold Becker, MD. Becker is an orthopaedic surgeon based out of the University of Pennsylvania and is considered one of the leading researchers in the United States. For over 30 years, Becker has studied the effects of the electromagnetic field on healing and regeneration.

I agree with his premise that medicine, electronics and surgery have done wonderful things for mankind. However, in ignoring the electromagnetic field phenomenon of the human being we have missed the most potent healing force in our patient's mind/body complex.

The ability of our fascial system to conduct energy may be due to melanin. Melanin is present in copious quantities in the fascia, and neuromelanin is present in the neural structures and brain, which are encased by fascia down to the cellular level. Melanin has superior conducting properties at room temperature. It is synthesized in mast cells that are also found in the fascia and influence the immune system. As a superconductor, melanin may regulate firing of mental nerve cells. It seems centrally involved in the control of all physiologic and psychologic activity. The neuromelanin-neuroglial system is the major site of mental organization[1]. The nervous system is made up principally of glial cells. These cells have electrical properties that appear to be responsible for the piezoelectric phenomenon.

Piezoelectric behavior is an inherent property of bone and other mineralized and nonmineralized connective tissues. Compressional stress has been suspected of creating minute quantities of electrical current flow.

Fascia is a piezoelectric tissue that has the ability to convert mechanical pressure into bioelectrical flow to enhance the healing process. In other words, a therapist utilizing myofascial release techniques will mechanically break up the crosslinks that develop at the nodal points of the fascial system. This sustained mechanical pressure is transformed into a bioelectrical flow allowing for a change in the viscosity of the ground substance from a solid to a more fluid medium, enhancing the gliding ability of the fascial system.

Copper wire is a well-known conductor of electricity. If copper wire becomes twisted or crushed, it loses its ability to conduct energy properly. It is thought that fascia may act like copper wire when it becomes restricted over time through trauma, inflammatory processes or poor posture. Its ability to conduct the body's bioelectricity seems to be diminished, setting up structural compensations and ultimately the symptoms of pain, headaches or restriction of motion.

Like untwisting a copper wire, the myofascial release technique can restore the fascia's ability to conduct bioelectricity, thus creating the environment for enhanced healing. Myofascial release can also structurally eliminate the enormous pressures that fascial restrictions exert on nerves, blood vessels, osseous structures and muscles.

Myofascial release can eliminate the fascia's excessive pressure on pain sensitive structures and restore proper alignment. Similar to the copper wire effect, myofascial release can enhance the transmission of our important healing bioelectrical current via the piezoelectric system.

Myofascial Release – therapeutic artistry

The net result is that myofascial release is not meant to replace traditional therapy, but is a very important addition to it. Myofascial release helps your adult and pediatric patients decrease pain, headaches, spasm and spasticity while it helps restore motion.

[1] Bart, F. "Melanin as Key Organizing Molecule." Brain Mind Bulletin, 1983; 8 (12/13): 1.

John F Barnes, PT, conducts myofascial release treatment in Malvern, PA and Sedona, AZ.
Additional information on Myofascial Release Treatment Centers and Seminars can be obtained by calling 1-800-FASCIAL.