

MIND & Body

Myofascial Release: **Alternative No More!**



The U.S. government and third-party payers are following consumers in accepting previous 'alternative' therapies as 'traditional' physical therapy

By John F. Barnes, PT

(Editor's note: John Barnes discusses in this article the trend of consumers to seek out alternative therapies, often in combination with traditional care. To learn about a unique form of alternative care, dolphin-assisted therapy, see our Web site www.physical-therapy.advanceweb.com.)

In many parts of the country, physical therapists and PT assistants who had previously been successful practicing traditional PT are losing their jobs. Many others are being told to spend less time with their patients and more time on burdensome paperwork. Yet in many cases, facilities and therapists that have included alternative therapies are flourishing.

In 1998, more than 40 percent of Americans sought alternative care--that's 83 million people. This was revealed in an article in *Newsweek* ("What's Alternative?" Nov. 23, 1998), which further stated, "We paid more visits to these therapists (629 million) than to primary care physicians (390 million)." The article went on to say, "... as Harvard researchers reported in *The Journal of the American Medical Association's* lead article [1997] that the trend has exploded in the '90s." More than \$27 billion was spent on alternative care in 1994. In November 1998, more than 10 American Medical Association journals ran articles on alternative medicine.

"The market for alternative medicine is vast and growing," said David M. Eisenberg, MD, in the *Newsweek* article. Dr. Eisenberg is the director of communication of Alternative Medicine of the National Institutes of Health Sciences in Washington, DC. The estimated expenditures for alternative care providers increased from \$14.6 billion to \$21.2 billion (another estimate is \$32.7 billion). Perhaps a reason for the increase is that the poor results produced by the traditional beliefs that we are mindless machines that can be fixed by treating symptoms are obsolete. It is time we expand our knowledge and skills to a more realistic approach that truly treats the whole person.

Self-Correction

Increasingly, medical researchers and experienced health professionals are viewing the body as a self-correcting mechanism with bioelectric healing systems. While some are starting to explore the body's sensitivity to electromagnetic energy, others still choose to ignore the matter because it upsets their long held theories.¹

I believe an important component of our mind-body healing connection is the transmission of our bodies' bioelectrical currents along the three-dimensional network of the fascial system. Two authors found naturally occurring direct-current signals that they called the "current of injury" (COI). These signals are thought to be transmitted by the sheaths of Schwann and glia cells that surround their neurons. Others, however, consider the body's healing currents to use the microcapillary systems. In this theory, the bioelectric circuits are turned on when membrane conductivity closes down, and the electric flow then takes the path of least resistance through the blood stream.² The mechanism has not been determined, but clearly, the body sends electricity wherever its healing effects are required.³

It is not clear if the body interprets the energy of many of our modalities and manual techniques as intrusive and therefore to be resisted. If such is the case, my experience has shown that the body recognizes this resistance as important to its survival. Many therapeutic efforts to health have, in fact, caused patients discomfort. Based on my experiences, I suggest that this may begin to show why microcurrents and the gently, sustained pressures of myofascial release produce results when conventional modalities and other hands-on techniques have failed. If the body does not view these as intrusive, it is not compelled to resist. Instead, the techniques are accepted as assistive, allowing the organism's self-corrective mechanism to be facilitated.

This is not to say that conventional modalities, exercises and hands-on techniques are not valuable. Rather, I suggest that to treat the body comprehensively, the approaches must be combined, as they go together in a complementary fashion and produce consistent results.

Conducting Energy

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 through trauma, inflammatory processes or poor posture over time. Then its ability to conduct the body's bioelectricity seems to be diminished, setting up structural compensations and ultimately, symptoms of pain or restrictions of motion.

It appears that the diminution of our fascial systems' ability to conduct energy may be compressional forces of the fascial tightness that may inhibit the transmission of 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 all the way down to the cellular level. Melanin has superior conducting properties at room temperature and is synthesized in mast cells, also found in the fascia, which influence the immune system. As a superconductor, melanin may regulate firing of nerve cells. It seems centrally involved in control of all physiologic and psychological activity. The neuromelanin-neuroglia system is the major site of mental organization.⁴ The nervous system is made up principally of Golgi 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 non-mineralized connective tissues. Compressional stress may create minute quantities of electrical current flow.

The fascia is a piezoelectric tissue; therefore when a therapist utilizing the myofascial release through compression, stretching or twisting of the myofascial system, he generates a flow of bioenergy (information) throughout the mind/body complex by the piezoelectric phenomenon.

This facilitates the extracellular matrix to transform as it undergoes its "sol to gel" reorganization during myofascial release. Fascia is behaving as an electrically conductive medium, which allows this visco-elastic tissue to re-hydrate under the sustained pressure of the therapist's hands.

This re-hydration also allows for an elongation of the myofascial system, relieving the pressure on pain sensitive structures for alleviation of the symptoms of pain, headaches and the restoration of motion.

Restoring Function

My experience has shown that like untwisting a copper wire, the techniques can restore the fascia's ability to conduct bioelectricity, thus creating the environment for enhanced healing. They also can structurally eliminate the enormous pressures that fascial restrictions exert on nerves, blood vessels and muscles. Myofascial release can restore the fascia's integrity and proper alignment and, similar to the copper wire effects, can enhance the transmission of our important healing bioelectrical currents.

It is important to understand that myofascial restrictions are not demonstrated in any of the standard tests (X-ray, CT scans, myelograms, electromyography, etc.). Therefore, myofascial restrictions that can produce tensile strength up to 2,000 pounds per square inch upon pain-sensitive structures can create pain, headaches, and/or limitation of motion, many times have been misdiagnosed or completely missed.

Adding myofascial release to our evaluatory and treatment regimens greatly expands our ability to provide comprehensive, cost-efficient results. *

Sincerely John



John F Barnes, PTA, LMT my mentor and myself



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