

## Touch, Movement and Microcurrent

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About three years ago, I was feeling restless in my practice and decided to substitute for practitioners who went on vacation. I visited about six busy practices a year and followed the practitioners' protocols very carefully so that patients would feel comfortable in my hands. Although there were many differences in the practices, such as the number of needles inserted and the length of treatment time, I couldn't help but notice something similar in every practice regarding the treatment of pain and injury. Aside from taking the pulse or applying pain-relief gels such as arnica at the conclusion of the treatment, there wasn't any touching or movement of the injured area. I remember thinking at the time that this makes sense because we as acupuncturists focus primarily on moving the subtle energy of the body, the *qi*.

But, what about our physical body, which consists of an amazing array of tubes and holes? Tubes that encase our blood and holes (more delicately expressed as *cavities*) for our internal organs are immersed in fluid everywhere. What prevents everything inside of us from being pushed aside, tossed about and becoming total mush? It is an "endless web" of fibers. Our connective tissue gives us structure and organization, fitting everything into a proper place. Connective tissue also plays a major role in healing and is produced by very specialized cells called fibroblasts. Like gypsies, these repair cells move from place to place, secreting "the long white fibers of collagen" and forming scar tissue. Collagen is the main ingredient of connective tissue and can be arranged in many different ways. Fibers can be layered on top of each other or crisscrossed. They can appear light and airy like the fat under our skin or smooth for covering our bones. But, as important as collagen is for tissue repair, you can have too much of a good thing.

For example, if you have an injury to the shoulder, the blood vessels in the area initially constrict to prevent or stop bleeding. Next, inflammation occurs as the vessels dilate and allow proteins, nutrients and white blood cells to enter the tissue. Following the clearing of debris, the injured tissue is replaced by collagen produced by the fibroblasts. But, what happens if inflammation continues for a long time? The fibroblasts secrete more and more collagen. Eventually, there is so much scar tissue that structures in the shoulder such as muscles, tendons and ligaments have no place to move, and their fibers literally adhere to each other. This *gluing* of fibers prevents the flow of nutrients and fluids from entering the injured tissue and wastes from leaving the site. As the area dehydrates, movement is impaired in all directions and the result is frozen shoulder.

This brings us to the unique use of microcurrent therapy for treating pain and inflammation. Trauma to tissue reduces electrical conductivity in the area and affects the cell's capability to receive nutrition and remove wastes. The overall purpose of microcurrent is to release where there is congestion so that current flows freely through the pathways again, allowing cells to return to their normal activities. Unlike needles, microcurrent may be applied directly into inflamed tissue increasing cell membrane transport and reducing levels of inflammatory substances inviting an ideal environment for accelerating the healing process.

When pain and inflammation are reduced, the practitioner can use touch to locate areas of greater conductivity and unglue stuck tissue. Touch generates the semiconductor properties of connective

tissue called "piezo electricity," activating microcurrent signals in every direction. Stimulation of the superficial fascia will affect healing on a deeper level. Treating any condition requires noticing the overall organization of the patient's body, practicing internal listening and awareness of our own posture as we scan the injured area with our hands. Remain neutral by closing your eyes and gently gliding your hands back and forth in various directions. Palpate for tension and resistance in the fascia. Make distinctions as to what draws your attention and consider how the patient's daily posture impacts the injury. Feel for areas of health (smoothness, hydration and fluidity) surrounding the injured tissue. This informs us of areas of greater electrical conductivity. Apply microcurrent stimulation to areas of health along with acupuncture points; the highly conductive acupuncture points act as amplifiers, boosters along the way creating a discreet electrical relay system for moving *qi* and blood.

Exercise plays a crucial part in recovery from injury, and a proper program will improve strength, balance and endurance. Patients may require more than one type of therapy. As microcurrent is a physical therapy modality, techniques for enhancement of tissue and muscle repair are often used while exercising the patient's injured limb. As acupuncturists, we can use these techniques and refer the patient to a physical therapist for individualized home exercises. Whenever there is injury, we should keep in mind the powerful effect of "putting our hands on our patients." The addition of microcurrent therapy to your protocol for treating injury will not only be a metabolic boost to the cells but a boost for your clinical results.

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