Treatments & Procedures
Frequency-specific microcurrent

Frequency-specific microcurrent (FSM) is a technique for treating pain by using low-level electrical current. The current is delivered to certain parts of the body in an attempt to relieve the pain.

A frequency is the rate at which a sound wave or electronic pulse is produced. This measurement is registered in hertz (Hz). In using FSM to treat pain, it's been found that various frequencies can be used to potentially reduce inflammation (swelling), repair tissue, and reduce pain.

How does frequency-specific microcurrent work?

FSM is applied to the body with a device that delivers a mild current. Microcurrent is an extremely mild electrical current (one millionth of an ampere). The human body actually produces its own current within each cell.

In FSM, depending on the tissue involved, specific frequencies are selected to encourage natural healing of the body and to reduce pain. Frequencies have been identified for nearly every type of tissue in the body.

One of the ways FSM works is by potentially increasing the production of the substance ATP in injured tissues. ATP is the major source of energy for all cellular reactions in the body. Because treatment with FSM can increase ATP production by as much as 500% in damaged tissues, this may help with the recovery process. Depending on the condition, treatment with FSM can "loosen" or soften the muscles, which can help relieve pain and/or stiffness.

What conditions can be treated with frequency-specific microcurrent?

FSM is most often used to treat pain, especially nerve and muscle pain, inflammation, and scar tissue, from the following conditions:

- Shingles
- Burns
- Kidney stones
- Asthma
- Irritable bowel syndrome
- Disc injuries
- Fibromyalgia
- Diabetic neuropathy
- Neuromas (overgrowth and scarring to a nerve after an injury)
- Tendinopathy (inflammation and/or swelling of the tendon)
- Acute (sudden) and chronic (long-term) musculoskeletal injuries
- Acute and chronic neuropathic (nerve) pain
- Chronic fracture and bone pain
- Arthritis
- Torticollis (the head is tilted to one side)
- Disc injuries/discogenic- and facet-based pain
- Viscerally-referred pain
- Concussions
- Headaches
- Plantar fasciitis (pain in the heel and foot)
- Sports injuries
- Wounds

Is frequency-specific microcurrent painful?

Treatment with FSM is non-invasive and painless. The currents used in FSM are so low that the patient often does not feel them. During FSM treatment, patients may notice certain effects, including warmth and a softening of affected tissues.

How is frequency-specific microcurrent applied?

To treat a patient with FSM, the caregiver first sets the frequencies to be used for that particular condition. In many cases, the frequencies are set at two different levels; for example, one microcurrent channel might be set at 10 Hz, and the second at 40 Hz.

The current is most often applied with a moistened towel or with skin patches. It's very important for the patient to be well hydrated (drink plenty of fluids) before FSM treatment.

How long do the effects of a frequency-specific microcurrent treatment last?

Depending on the condition and the patient's level of pain, the effects of an FSM treatment for pain can last several days or longer. For acute injuries, lasting pain relief can often be achieved.

Are there any situations in which frequency-specific microcurrent should *not* be used?

People who should not receive FSM treatment include those who have pacemakers, implanted pumps, or uncontrolled seizures, and women who are pregnant.

In addition, certain frequencies should not be used in cases of acute infection, new scar tissue (within 6 weeks), and acute fractures. Please discuss any of these concerns with your provider during consultation so that appropriate recommendations can be made.

What are the risks and side effects of frequency-specific microcurrent treatment?

The side effects of FSM treatment are usually very rare and mild, and may include nausea (feeling sick to the stomach) and drowsiness.

References:

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