

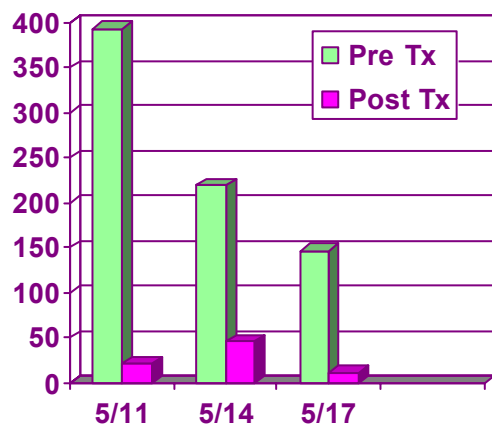
## Frequency Specific Microcurrent For Contact Sports

Microcurrent is a battery operated physical therapy modality that was introduced in the US in 1987. Research published in 1987 by Ngok Cheng, MD showed that microamperage current increases the rate of energy (ATP) production in cells by 500% and increases the rate of protein synthesis and waste product removal by 70%. Currents above 1000 micro amps (1 milli amp) actually reduced energy production. Every other physical therapy modality currently in use delivers current in milliamps.

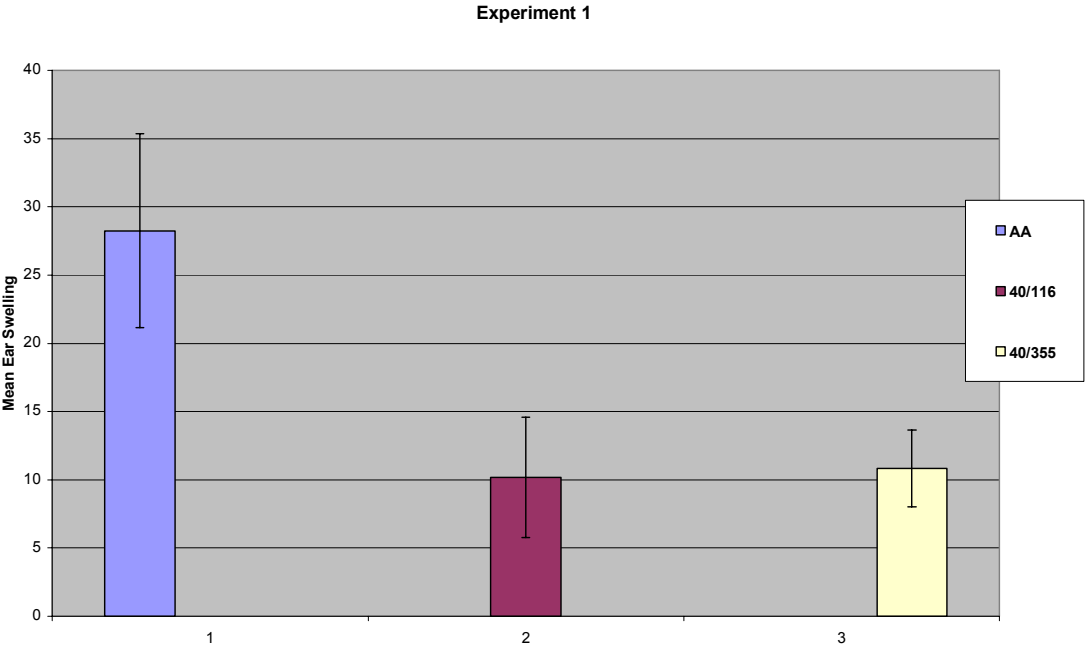
Because of its ability to increase the rate of energy production in the cells microcurrent has always been used to increase the rate of healing in injured athletes.

Frequency Specific Microcurrent (FSM) uses frequencies that were developed in the early 1900's by MD's and Osteopaths who used them with electromagnetic therapy machines popular before 1934. In 1934, the AMA declared that electromagnetic therapies were "unscientific" and the machines eventually fell out of use. In 1994, using frequencies from this era and a microcurrent device as a frequency generator, Dr. Carolyn McMakin, an Oregon pain specialist began developing frequency protocols for the treatment of muscle and nerve pain. In 1996, FSM began using graphite conducting gloves to deliver the current allowing for ease of palpation and site specific frequency and current application. Chronic nerve and muscle pain responded very well to the use of the current and frequencies and new injuries healed at an accelerated rate. In January 1997, Dr. McMakin taught the first seminar to determine if these impressive clinical results were reproducible and by June of 1997 it was apparent that they were. Since then more than 400 physicians in the US and 140 in Australia have been trained in three day seminars to use this new therapy. By 2003, Frequency Specific Microcurrent had become the most effective way of treating new injuries and chronic muscle and nerve pain ever seen in physical medicine.

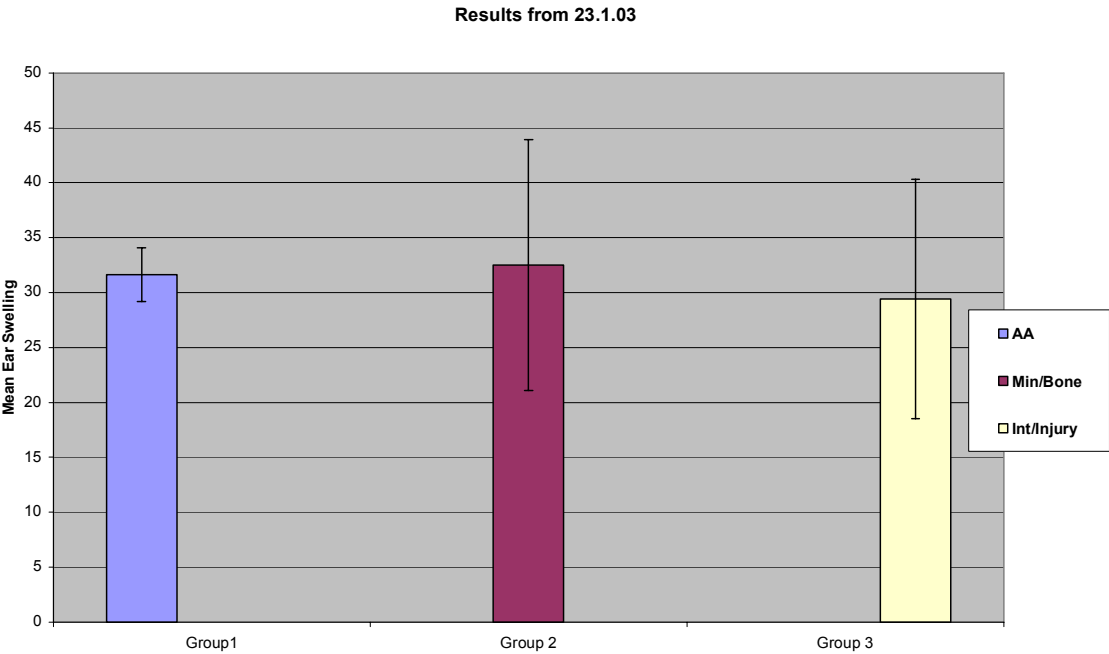
New research is now available documenting unprecedented reductions in inflammation using FSM. Reductions in inflammatory cytokines created during the treatment of chronic nerve pain proceeded at a logarithmic rate and reduced inflammation by factors of 10 to 20 times for all of the inflammatory cytokines. Interleukin-1, a powerful inflammatory mediator, was reduced from 392.8 to 21.4 in 90 minutes. On each of three treatments the inflammation was reduced at the same rate. The samples were taken from the patient's blood, placed on special blotter paper and analyzed by an immunochemist at the National Institutes of Health in Bethesda, Maryland. Only one frequency was effective in reducing this inflammation or the patient's pain.



In animal research done at University of Sydney (Vivienne Reeve, PhD department of Veterinary Science), inflammation and swelling produced by painting arachidonic acid on mouse ears was reduced by 70% using the frequency for reducing inflammation. No anti-inflammatory drug ever tested in animal research has produced more than a 45% reduction in swelling.



No other frequency tested reduced swelling or inflammation at all.



Ask yourself, “What would happen to performance, health and healing if ATP was doubled and if post exercise inflammation and muscle soreness could be eliminated?”

## **New Injury Case Report**

The patient was a 19 year old male driver of a vehicle rear-ended by another vehicle traveling approximately 60 miles an hour. The injuries expected from this magnitude of collision would have been significant and the patient would have been symptomatic for approximately three to four months. He was treated with Frequency Specific Microcurrent within five hours of the accident using the frequencies for new injuries. The next day he was almost pain free with full range of motion. A second treatment the next day reduced the pain to 0-1/10 on a visual analogue scale. On the fourth post accident day, when the pain would have been at its worst had he not been treated with FSM, he was pain free and on vacation playing golf. This information can be verified by Dr. Michael Hattrak, the patient's father. (770 940-9200)

## **The Four Hour Window**

In over 100 cases, collected by the 300 FSM practitioners in the US and the 100 in Australia, new injuries produced by trauma, accidents, falls, or surgery respond dramatically to the effects of FSM. If FSM can be applied in the first four hours after the injury it is almost as if the inflammatory process never sets up. The current increases energy production in the cells and restores the normal bioelectric activity of the tissue. The frequencies that produce the most profound effect are the ones thought to reduce bleeding from torn or injured tissues and reduce inflammation. One hour of treatment, using these and many other frequencies, seems to be adequate to eliminate or greatly reduce the pain and greatly reduce the amount of time needed for healing. In most cases the patient is pain free within two to three days as long as there is no fracture. Fractures improve and heal at a rapid rate if treated within this four hour window. Soft tissue injuries are pain free in one to two days. The new injury protocols include frequencies thought and observed to improve concussion and cognitive function. At this time, only case reports document these effects but animal and functional MRI studies are planned.

## **Risks and Side Effects**

FSM is delivered by battery operated device and provides subsensory current. It cannot be used through a pregnant uterus or in patients who have pacemakers. Patients must be well hydrated for optimal current flow and optimal results. The only common side effect occurs following treatment for chronic muscle pain when some patients experience what appears to be a detoxification reaction approximately 90 minutes after treatment. This reaction can be prevented by consumption of adequate water and an anti-oxidant supplement. There are no other known side effects or risks.

## **FSM for Contact Sports**

The benefits of FSM for the players of contact sports are obvious. The physicians who treat professional athletes have requested a special seminar, a special program for trainers, and an automated treatment unit designed specifically for athletes. The seminar has been modified from the medical seminar to focus on the specific needs of the athletes and the trainers and physicians who treat them. This special two day seminar, taught by Dr. McMakin, includes the frequencies, the science that supports their effectiveness and the treatment protocols for chronic injuries and new traumatic injuries. The course includes 6 hours of practical hands on time to ensure optimal results.

Join us for the next revolution in sports medicine by calling Frequency Specific Seminars at 1-877-695-7500