

The Light Stuff - Washington Post, February 17, 2004
By Lois Lindstrom

The New England Patriots won Super Bowl XXXVIII with some help from a little-known form of laser technology that could change the way athletic injuries and chronic pain are treated.

The treatment, known as "cold" laser therapy or low-level laser therapy (LLLT), has been used internationally for 18 years to treat soft tissue injuries, cervical neck pain, carpal tunnel syndrome, repetitive stress injuries, tendinitis, hamstring injuries, arthritis and wound healing, among others.

The lasers -- hand-held, flashlight-like devices that direct a beam of narrow-spectrum (but not hot) light at injured tissue beneath the skin -- have been integrated into medical practice in Japan, Russia and the United Kingdom. In the United Kingdom, cold laser therapy has become a preferred treatment for "whiplash" injuries, neuralgia and shingles. In Japan, the lasers were approved in 1987 and are in widespread use today.

In the United States, the technology received marketing clearance from the Food and Drug Administration (FDA) in 2002 for treating carpal tunnel syndrome, a painful inflammation of the wrists and hands that results from repetitive motion. But the mainstream medical establishment still considers the cold laser's benefits unproven. Most U.S. users are athletic trainers, chiropractors and practitioners of alternative medicine.

"The medical community needs more scientific studies done in the United States," said Wayne Good, a general surgeon in Waterford, Mich., who participated in the clinical trials that led to FDA clearance of the laser device. Good worked with General Motors Corp., which hosted the double-blind, placebo-controlled trials on serious carpal tunnel sufferers as a way to seek more cost-effective treatment for the condition, which affects many auto workers.

Good said the treatment proved about 70 percent effective in getting injured workers, most of whom had failed to respond to other treatments, back on the job. GM offers the treatment to injured workers in its in-plant medical clinics.

But insurance payment for the procedure is also an issue holding doctors back, Good said. Many U.S. insurers will not pay for cold laser treatment, citing the need for further research proving its benefits.

"If the major insurance companies . . . do not pay for the technology," Good said, "the doctor cannot be reimbursed for treating his patients."

Sport and Health

While mainstream medicine remains on the sidelines, practitioners of sports medicine, who are highly motivated to find new ways to heal soft-tissue injuries and bruises, are getting right into the cold laser game.

In the week preceding the Super Bowl, Boston based registered nurse Ellen Spicuzza treated more than 10 Patriot players with cold laser therapy for tendon and muscle injuries.

"A couple of days prior to the Super Bowl weekend, I treated [Patriot wide receiver] David Givens, who had a locked-up hamstring," she said. She rotated the \$4,000, pen-like laser over the "belly" of his hamstring muscle for about five minutes, she said. "The laser released it."

Spicuzza, an independent nurse/physical therapist in Boston, usually treats Patriot players' injuries with medical massage. For the big game, she for the first time used low level laser therapy on the athletes' most troublesome pain spots. Before using the cold laser, Spicuzza was skeptical.

"I am not into gimmicks," she said. "I didn't think it would help."

But she changed her mind after seeing how the laser expedited healing of some players' soreness and pain.

"I don't think [the improved recoveries were] a coincidence," Spicuzza said. "It did help. I used it on a flared-up sciatic nerve, and the player had relief soon after treatment."