[IMAGE]

A New Frontier of Pain Relief

By Dr. Matthew J. Weisbrod

Chiropractors offer a variety of ways to treat muscle and joint pain without resorting to medication. Now, some doctors are also recommending therapeutic ultrasound to relieve pain, reduce inflammation and accelerate healing. Find out if this therapy is right for you.

Almost everyone is familiar with *ultrasound* - most equate it with use during pregnancy, or to visualize organs and help diagnose disease. This type of ultrasound is known as *diagnostic* ultrasound. What you probably don't know is that the exact same technology is even more commonly used in *therapeutic* ultrasound.

The intensity output of both diagnostic and therapeutic ultrasound is regulated by the Food and Drug Administration. As compared to the rare or occasional use of diagnostic ultrasound (as in pregnancy), therapeutic ultrasound can be used two to three times per week for five to 10 minutes per session. Many other medical devices use this technology, but in different waves, including lasers and larger units in hospitals and chiropractic clinics.

How Does Therapeutic Ultrasound Work?

Ultrasound therapy has been used for more than 60 years in the therapeutic management of pain and musculoskeletal injuries. While it has been around for decades, significant evidence of its favorable biophysical effects has only recently begun to accrue.

Woman with illustrated sonic waves touching her shoulder. - Copyright â Stock Photo / Register Mark

Therapeutic ultrasound utilizes sound waves - just like diagnostic ultrasound - to penetrate the body and help heal pain and inflammation. But how does ultrasound really work? Ultrasound is really just sound waves that vibrate at more than 1 million vibrations per second, far above the threshold of detection for the human ear; therefore, ultrasound can be thought of as a very high-frequency vibration.

As these sound waves penetrate human tissue, there are two effects. The thermal effect occurs as the sound waves heat the tissue it penetrates, and the nonthermal effect is the tissues actually vibrating very rapidly in

response to the sound waves. Ultrasound waves penetrate deep into your tissue to relieve pain, reduce inflammation, increase blood flow, reduce muscle spasm, accelerate healing and increase range of motion.

Therapeutic ultrasound can penetrate your tissue up to 3-4 inches. This is one of the only mechanisms available that can give this sort of deep treatment. When receiving therapeutic ultrasound treatment, gel is always used to conduct the sound waves to the desired area of treatment. Available now are specially medicated gels which contain natural anti-inflammatory ingredients. These gels contain all-natural ingredients: eucalyptus, peppermint, menthol and lavender. During your therapeutic ultrasound treatment, a process takes place called phonophoresis. Phonophoresis occurs when the sound waves transport the natural ingredients from the gel through your skin layers to the area of pain and inflammation, causing you to feel immediate relief and a soothing, cool sensation.

Who Can Benefit From Therapeutic Ultrasound?

Ultrasound energy has been scientifically shown to reduce pain and inflammation, accelerate tissue healing and promote faster injury recovery. Ultrasound treatments will increase the rate of healing, but more importantly, evidence now suggests ultrasound can improve the quality of healing by increasing the strength of repairing tissues (tendons and ligaments).

Ultrasound's ability to effectively reduce inflammation makes it ideal for anyone suffering from arthritis or any form of tendonitis or bursitis. It also helps to increase the range of motion of stiff joints and reduces muscle tension/spasms often associated with arthritic conditions or stress-related, postural causes.

Remember, it is important to be proactive about health conditions as they arise. People often let pain carry on, thinking it will go away. If you are undergoing treatments for a chronic, painful or inflammatory condition - back pain, foot pain, injury from an accident, sports injury or an acute traumatic sprain or strain - you know all about it. If you are seeking long-lasting relief but haven't found it yet, ask your doctor about therapeutic ultrasound. It is excellent for long-lasting relief if used regularly.

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