

PRODUCTS AT WORK

BY JEFF HARBAND, MS, PT

Ultra Sound Advice

Parker Labs makes an effective device even better.

VIRTUALLY ALL PHYSICAL therapists have used ultrasound at one time or another to treat soft tissue injuries. At the same time, many have questioned its effectiveness. Some, like me, even stopped using it.

During the year I practiced without the modality, I must admit I didn't miss it at first. But then I realized edema reduction through effleurage, soft tissue massage and joint mobilization weren't as effective as they would have been, if ultrasound were combined with them. The modality, I observed, provides patients with a comfortable, warm introduction to these hands-on treatments, making tissues more extensible and easier to maneuver.

Armed with this knowledge, I now use ultrasound (when appropriate) with most of my patients at or near the beginning of each session.

Before treating them, however, I ask myself questions to determine my treatment goals: Is my goal edema reduction, tissue extensibility, scar tissue breakdown, or pain reduction? Then, I determine the appropriate treatment parameters. Is heat desired? Is scar tissue present? How deep

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is the area that's being treated? And are bones or bony prominences near by?

The answers determine my plan of action, including treatment time and dosage, whether patients need pulsed vs. continuous application and whether they should receive



The therapist applies ultrasound through the Aquaflex® Ultrasound Gel Stand-Off Pad, by Parker Laboratories, to a patient with carpal tunnel syndrome.

1MHz vs. 3MHz (if available).

Since my clinic doesn't have a 3MHz unit, I've found that an excellent alternative for treating shallow injured areas is the Aquaflex® Ultrasound Stand-Off Pad, by Parker Laboratories Inc., based in Fairfield, N.J. This 2-by-9-centimeter gel pad was originally developed for diagnostic ultrasound to move the focal point of the beam to make it shallow. It does the same for therapeutic use, which shows

there's no reduction in ultrasound dosage or effectiveness. In addition, a recent study showed that there's no attenuation of the heating effect using Aquaflex.¹

I've been using Aquaflex to treat conditions, such as lateral epicondylitis, de Quervain's

tenosynovitis, carpal tunnel syndrome and TMJ, all with excellent results. The pads provide a comfortable cushion for irregular surfaces and joint areas, and can be used with or without additional gel applied to either surface. I usually apply a small amount of Aquasonic to patients' skin and to the transducer head. Since there's no heat attenuation, I often use pulsed ultrasound to avoid heat buildup when treating areas where inflammation exists.

The pads can be reused many times on the same patient, as long as they're replaced and labeled in the container after use. They're especially effective for phonophoresis, since the medicated gel doesn't get diluted and stays over the affected area.

After application, I decide which treatment method should follow. Many of my patients appreciate massage or soft tissue mobilization. During these sessions, I

use Parker's Polysonic® Ultrasound Lotion with Aloe Vera because it's a great coupling medium and works well as a massage cream. We also keep the lotion in Parker's Thermasonic® Gel Warmer. This device keeps gels and lotions at body temperature, so patients aren't startled by a cold substance.

There's no doubt that our profession is built around "hands-on" treatment. Ultrasound provides warmth, comfort and healing, creating an ideal path to the laying on of hands. Most scientific studies have looked at the effect of ultrasound at a cellular or tissue level, but it's much more difficult to quantify the "human" effects. The feedback we've received at our clinic from patients and doctors reflects the personalized attentive service we provide. This response is subjective and created by the feeling of one-on-one treatment, enhanced by modalities. In an age of managed care where every minute counts, I've found that ultrasound is an effective use of my treatment time.

Reference

- Merrick, M.A., Mihalyov, M.R., Roethemeier, J.L., Cordova, M.L., & Ingersoll, C.D. (in press). A comparison of intramuscular temperatures during ultrasound treatments with coupling gel or gel pads, *Journal of Orthopedic and Sports Physical Therapy*.

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