

Field Trials with Ultrasound and Infrasonic™

	Ultrasound	Infrasonic
Unit	Mettler Electronics Sonicator 730 800/854-9305 www.mettlerelec.com	CHI Institute Equitonic QGM 800/743-5608 www.chi.us
Price	ME 730 - 3 heads/both 1 and 3.3 Mhz capabilities - \$1,695.00 ME 716 (10 cm head) or ME 715 (5 cm head) - \$1,395.00	Equitonic 3 - \$795.00 (call for distributor pricing)
Settings	Muscle: 1.0/5/10/2.0 Stifle: 1.0/5/10/2.0 Distal Joint: 1.0/5/7/1.5 to 2.0 Tendon/Ligament: 1.0/5/10/2.0 Joint Capsule: 1.0/5/5/1.5 to 2.0 Curb: 3.3/1 or 5/4/2.0 Ultrasound Settings: Mhz/effective area of treatment head/treatment time/power in W/cm2	Local Acute: 30 minutes on high, if tolerated. Otherwise, 30 minutes on low. Acupuncture Meridian Sweep: High Acupuncture local Reactive Points: High Acupuncture Suppressed Points: Low
Our Field Results		
Muscle Pain	Many horses highly reactive even to pulsed therapy become comfortable. Must keep the device head moving. Use 1.0 Mhz for better penetration, slower heating. Response fair to poor with exercise-related pain. Much more favorable with chronic back and neck pain. Best with Sore No-More as the gel.	Therapy well tolerated, although may need to start low for very painful areas. Treat most painful spots first, then use slow sweeping movements over entire muscle belly until no longer painful to touch. May require 20 to 30 minutes, but results are excellent and recurrence rare.
Stifle Pain	Treated from front and both sides, over patellar ligaments if ligament pain, between them if joint pain. Very good response.	Long treatment times required for effective local therapy from all sides (20 minutes per side) is a drawback since you cannot secure the head and must hold it in place.
Tendon/ Ligament Pain	Chronic injuries near bone insertions (a high bow and a low suspensory) had fair control of pain and swelling but no real improvement over time. (No lasting change after stopping treatments.) Mild diffuse tendinitis and changes mainly in the center of the structure were more responsive to treatment but easy to trigger more swelling/inflammation with therapy. Use ice before and after treatment.	Excellent control of local swelling with 15 to 20 minute treatments. Heat also decreased. Doesn't seem to improve healing time in acute injuries but did lead to rapid resolution of flare-ups in chronic injuries. No danger of worsening inflammation.
Distal-Joint Pain	Knees/hocks and below: 3.3 Mhz produces some discomfort, use 1.0 Mhz. Joint effusions may lessen after only one session. Heat and pain control best if also used with Sore No-More gel.	Excellent pain control in both chronic and acute synovitis and arthritis. Rapid and often dramatic reduction in pain and soft-tissue swelling, less rapid response in degree of joint effusion. As with tendons, could not really see any more rapid healing per se in acute problems, but the flare-ups of chronic problems were readily quieted down.
Joint-Capsule Pain (osselets)	Same as for distal joints. Very good symptomatic control and rapid resolution.	As with ultrasound, osselets came under rapid control and resolved quickly with this therapy.
Curbs	Tolerated the 3.3 Mhz well here. Treated from both sides, only 4 minutes per side. Resolved in four weeks, kept in light work.	Pain control was very good, allowing horses to continue light work with no worsening of the condition. Control of heat and swelling was fair. Slight improvement overall at end of four weeks.
Wounds	Not indicated.	Reported to be beneficial, but we didn't specifically test for this.
Notes	Higher frequencies (3.3 Mhz) were less well tolerated, leading to more-rapid local heating. Always a risk of activating inflammation to an extent that area ends up more hot and swollen. This was especially a problem with tendons and ligaments. Risk of overheating of tissues if used on continuous.	No known risks.

CHI Institute

This article is a reprint from:

The Horse Journal, "Using 'Sound' Medical Treatment." - Volume 8, Number 4, April 2001.

For the full article, please go to: http://www.horse-journal.com/pub/8_4/features/199-1.html