



The Evidence is in...

VersaTron[®] 4 Paws



VERSATRON 4 PAWS[®] – STUDIED EXTENSIVELY. PROVEN EFFECTIVE.

Research demonstrates efficacy of high-energy Shock Wave Therapy for multiple canine indications

LUMBOSACRAL DISEASE

38 dogs, 2 cats

1,000 pulses on lumbosacral spine, Energy Level E5

Results:

35 out of 40 animals (87.5%) showed a positive response according to the authors' subjective evaluation

Median effect was 13+ months, primarily after 1 treatment

Client Satisfaction: 87.5% satisfied and would use shock wave again, if necessary

*Kim YJ, Jenkins L, Leeds EB
Surgical Group for Animals, California
Submitted for publication*

PATELLAR LIGAMENT DESMITIS POST TPLO

30 large-breed dogs

600 pulses, Energy Level E6

Results:

Significant reduction in distal ligament thickness as compared to controls at 6 weeks

*Gallagher A, Cross A
Georgia Veterinary Specialists
Published in Veterinary Surgery, May 2012*

SHOULDER-RELATED LAMENESS

18 dogs (mixed-breed; Australian shepherd, Labrador retriever with mean age of 5.6 years)

750 pulses, Energy Level E4, 3 treatments (3-4 weeks apart)

Results:

88% of dogs treated showed improvement (p<0.001) ~week 12 evaluation again

*Becker WM, Kowaleski MP, et al.
North Grafton, Massachusetts*

ELBOW OSTEOARTHRITIS (OA)

Prospective randomized crossover trial 15 dogs with OA confirmed radiographically

500 pulses, Energy Level E3 on joints

Results:

4.5% increase in peak vertical force in shock wave group compared with a decrease of 2.6% in sham group (p<0.01)

*Millis DL, Drum M, Whitlock D
University of Tennessee*

PulseVet[®]

Leadership in Veterinary Regenerative Technology

www.VersaTron4paws.com

HUMAN AND VETERINARY SHOCK WAVE RESEARCH HIGHLIGHTS

OSTEOARTHRITIS

Shock wave shows chondroprotective effects in osteoarthritic animal model

Wang C, et al. *Arch Orthop Trauma Surg*, March 2011.

Conclusion: Shock wave reduces inflammation and aids in cartilage breakdown which may help to reduce pain and slow joint damage caused by OA.

Shock Wave for OA in the Horse

Revenaugh M. *Vet Clin Equine* 21 (2005) 609-625

Conclusion: Case reports of various horses with OA treated with shock wave demonstrate decrease in lameness scores for up to 24 months or longer.

Effects of shock wave and polysulfated glycosaminoglycan (PSGAG) on subchondral bone in horses

Kawcak C, et al. *Am J Vet Res* 2011;72:772-779

Conclusion: Treatment of OA with shock wave on 24 healthy horses induced increases in serum biomarkers indicative of bone remodeling. Treatment of OA with PSGAG had no effect on serum biomarkers.

Shock Wave down-regulates interleukin-10 and TNF-alpha in osteoarthritic chondrocytes

Moretti B, et al. *BMC Musculoskeletal* 2008.

Conclusion: Chondrocytes of articular cartilage in human patients with knee OA following joint replacement were treated with shock wave. 48 hours later, there was a significant decrease in IL-10 and TNF-alpha known to further stimulate the progression of osteoarthritis.

TENDON HEALING

Shock wave promotes healing of collagenase-induced Achilles tendinitis

Chen Y, et al. *Journal of Orthopaedic Research* (22) 2004 854-861.

Conclusion: Increase of TGF-b1 expression and stimulation of tissue regeneration of the tendon following shock wave therapy.

Shock Wave and Plantar Fasciitis

Wang C, et al. *American Journal of Sports Medicine*, (34) 4:592.

Conclusion: Shock wave is effective and safe for patients with plantar fasciitis, with good long-term results (149 patients).

BONE HEALING

Shock Wave for Non-Union or Delayed Osseous Union

Schaden W, et al. *Clinical Orthopaedics and Related Research* Vol 387 2001.

Conclusion: Shock wave should be considered first line treatment for human patients with non-unions and delayed bone fractures.

Shock wave and long bone fractures of the lower extremity

Wang C, *Arch Orthop Trauma Surg* 2006.

Conclusion: Shock wave is effective in promoting fracture healing and decreasing rate of non-union in acute high-energy fractures of the lower extremity.

Shock Wave for nonunion of the Tibia

Elster E, et al. *J Orthop Trauma*. 24 (3), 2010.

Conclusion: 138 human patients treated with shock wave demonstrated complete healing with a mean healing time of 4.8 months.

WOUNDS

Shock Wave and antibiotics to defeat biofilm infections in wounds

Wanner S, et al. *Innsbruck, Austria*

Conclusion: Shock wave combined with antibiotics help eradicate staphylococcal biofilm.

Angiogenic Response to shock wave in murine skin isografts

Stojadimovic A. *Angiogenesis* 2001.

Conclusion: Early pro-angiogenic and anti-inflammatory effects of shock wave promote tissue revascularization and wound healing.

Effects of shock wave of the distal portion of the limbs in horses

Morgan D, McClure S, et al. *JAVMA*, 234 (9). 2009.

Conclusion: Shock wave stimulates healing of wounds in the distal portion of limbs in horses. Healing time was significantly shorter on treated horses versus non-treated horses.

For additional research and case studies, visit PulseVet.com