

Your dog....and Sprains and Strains

High-energy, shock wave sound healing for tendon and ligament injuries

Sprains and strains of the tendons and ligaments are common injuries in dogs, many times caused by falls or overuse of muscles in highly active dogs. The tendons and ligaments can be stretched, partly torn or ruptured causing severe pain and lameness. These injuries can take a long time to heal, with months of rehabilitation and limited activity.

Tendon and Ligament Injuries

Cranial Cruciate Ligament (CCL) – similar to “an ACL injury” in humans

- ensures a dog’s knee (stifle joint) functions properly
- patellar ligament can rupture or tear and may require surgery to replace the ligament (extracapsular repair) or to stabilize the knee by cutting the tibia bone and rotating the top of it (TPLO procedure) or moving part of it forward (TTA procedure)

Achilles Tendons

- these are strong tendons of a dog’s “ankle” (hock joint) that connect the muscles and bones of the body and allow the feet to move
- they can be sprained, partially torn, or ruptured completely

Other Injuries

- Shoulder joint – tears in the tendon can cause a dog to limp in an attempt to shift weight to forelimbs
- Ruptured and torn ligaments are common in the fragile paws of dogs and in a dog’s “wrist” (carpal joint) and “ankle” (tarsal joint)

Why Shock Wave?

For many tendon and ligament injuries, anti-inflammatories do not offer sufficient relief, healing is stalled and severe lameness occurs. Shock wave offers a proven, noninvasive treatment that has a positive impact on:

Post-surgical inflammation · Partial tendon/ligament tears · Shoulder Injuries

In studies, high-energy sound wave technology has demonstrated success in:

- Decreasing lameness and pain
- Reducing inflammation
- Stimulating proteins (also called growth factors) that increase blood flow and promote healing

Veterinarians and owners report improvement in quality of life, reduced use of non-steroidal anti-inflammatories (NSAID’s), and fewer treatments than other therapies.

What to Expect

An average shock wave treatment is relatively fast and easy. Because we are dealing with sound energy and deep healing, your dog will need a short-acting sedation to ensure optimal comfort. Your veterinarian will deliver high-energy sound wave pulses to a treatment area using a conductive gel to optimize transmission. Depending on the severity of the disease, your dog may require 1-3 treatments, 2-3 weeks apart. Even if you notice immediate improvement, it is important to keep exercise and high-impact activity to a minimum in the days following treatment as the healing process stimulated by shock wave takes time.

The Shock Wave Difference

Case reports and clinical studies in human and veterinary medicine have proven that high-energy shock wave, sound healing is a viable option for healing tendon and ligament injuries.

Shock Wave and post-TPLO Healing

- 30 large-breed dogs had TPLO surgery and experienced inflammation of the knee's patellar ligament (thickness referred to as desmitis)
- One group of dogs received shock wave therapy 4 weeks after surgery and one group did not
- A second shock wave treatment was given two weeks later
- At 6 weeks, those dogs that had shock wave therapy showed a significant decrease in thickness/inflammation, versus those dogs that did not have shock wave therapy

Gallagher A., Cross A., Georgia Veterinary Specialists/A BluePearl Hospital, 2011.

BOTTOM LINE: Shock wave can be used post-surgically to reduce inflammation in common CCL/ACL injuries.

Shoulder Tendinitis

- 2-year old male neutered Coonhound
- Frequent lameness over a 9-month period with no improvement after anti-inflammatories
- Tight bicep/shoulder muscles and evident pain upon touching supported diagnosis of shoulder joint tendinopathy (significant inflammation)
- Healing of this type of injury can take 6 months, if not longer when severe damage exists
- Treatment: 3 treatments of shock wave, 3 weeks apart combined with home rehab program
- 800 pulses total with 20 mm on energy level 4
- At 10-week recheck lameness was improved and owner reported on-track recovery, however certain activities remained difficult
- At 7-month recheck, no pain evident and full activity was resumed

Courtesy of K. Kirkby, Seattle Veterinary Specialists.

BOTTOM LINE: Shock wave can speed healing and reduce inflammation contributing to lameness in joints.

Shoulder-related lameness

- 18 dogs with shoulder-related lameness
- Not responding to other treatments
- 3 treatments of shock wave, 3-4 weeks apart
- 750 pulses on energy level 4 (E4)
- 88% showed improvement in lameness with no complications reported

Courtesy of Kowaleski MP, Becker WM, et al. North Grafton, MA.

BOTTOM LINE: Shock wave is effective in reducing or eliminating shoulder-related lameness.

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