

Extracorporeal Shockwave Therapy Factsheet

Update August 2020



Extracorporeal shockwave therapy was developed in the 1980's. It was initially used in human medicine to treat kidney stones, allowing doctors to break down the stones without the need for extensive surgery.

Following this it was used to treat painful orthopaedic conditions in man, such as tennis elbow and plantar fasciitis, with good success. Since then it has been developed as a treatment for orthopaedic conditions and injuries in horses.

The principle behind ESWT is the use of energy in the form of acoustic waves to activate or promote the healing process. Shock waves are thought to increase the blood supply to the treated area, manipulate the inflammatory process, stimulate cells to rebuild injured tissues, improve the pattern of healing in tendons and ligaments and to decrease pain.

Shockwaves are a non-invasive treatment because they are applied by resting the machine on the skin. The energy waves travel easily through the skin into the deeper structures, where they can stimulate healing.

Shockwave therapy has been found to be most therapeutically beneficial treatment for injuries at the soft tissue-bone interface, i.e the attachment of ligaments to bone. These areas are often difficult to medicate, and unsuitable for surgery. Therefore, the non-invasiveness of ESWT and its focussed application have proved extremely valuable.

The technique is now used in equine orthopaedics to treat conditions such as proximal suspensory desmitis (inflamed suspensory ligament), suspensory branch insertional injuries, bucked shins and impinging dorsal spinous processes. The treatment can be useful in cases of chronic pain that have been refractory to conventional treatment and typically this involves three treatments at two-week intervals.

Shockwave is normally administered as a course of treatments. These range from three to five treatments with intervals of 7 to 30 days. The most

common protocol is three treatments at two-week intervals. In order for shockwaves to be applied the area to be treated is clipped, as it would be for an ultrasound scan. The area is then cleaned, and gel is applied to allow the machine to move freely over the skin.

The application of shockwave's can be a strange sensation for the horse, and they need to stand very still for the treatment so they are always sedated before a treatment is started.

Benefits of shockwave include:

- Speeds up healing process, thought to be achieved by having an immediate analgesic (pain killing) effect and reducing the inflammation in the affected area.
- Available on site or at your yard
- No drugs other than sedation
- Complete course in 3-5 sessions

Conditions treated with Shockwave therapy include:

- Digital flexor tendinitis
- Proximal Suspensory Desmitis
- Suspensory Branch Desmitis
- Muscular back pain
- Kissing spines
- Splint exostosis
- Sacro-iliac injury
- Collateral ligament injuries
- Navicular syndrome

Protocols to promote healing of acute injuries usually involve impulses delivered at the target area once every 2-3 three weeks for 3 treatments. The type and location of the injury determines the energy required, the depth of focus, and the number of pulses the tissue requires. Horses are usually restricted to stable rest and controlled exercise between treatments, followed by repeat assessment at the clinic or at the yard. Post treatment exercise levels are guided by the nature of the original injury and the improvement seen with treatment.



Bearsted Road, Maidstone, Kent, ME14 5LH
office@newnhamcourtequine.co.uk
T:01622 734 884

Extracorporeal Shockwave Therapy Factsheet

Update August 2020



At Newnham Court Equine, we have been particularly impressed with the ESWT's ability to provide pain relief for those horses with chronic conditions such as kissing spines, mild proximal suspensory desmitis, and neck osteoarthritis. Results reported back to us strongly support the pain killing and anti-inflammatory effects. Shockwave treatment of chronic injuries prior to a competition can really help the horse's ability to perform.



Bearsted Road, Maidstone, Kent, ME14 5LH
office@newnhamcourtequine.co.uk
T:01622 734 884