curo DIAGNOSTICS

PRODUCT FACT SHEET

Acoustic MyoGraphy Muscle Analysis

This non-invasive technique is used to measure health and performance in muscle and the suspensory system.

APPLICATION

The CURO can be used as a non-invasive and real-time monitor for such functions as:

- Performing a detailed muscle performance analysis
- Detecting asymmetry and muscle imbalance
- Revealing muscle injury site/cause of lameness
- Monitoring the benefits of a re-training program
- Monitoring training and muscle fatigue status
- Assessing movement patterns
- Analysis of the suspensory system
- Detecting ligament injuries in the PSL

FAST FACT

The CURO system is a new, unique, validated, versatile and pain-free method of measuring muscle contraction and ligament injuries non-invasively.

BACKGROUND

When muscle fibres contract, they generate vibrations producing pressure waves within the muscle itself and the surrounding tissues. These waves can be recorded at the level of the skin above the muscle of interest. Thus, Acoustic MyoGraphy (AMG) should be seen as a transdermal means of recording the produced pressure waves of active muscles. In this way the AMG technique represents a non-invasive and pain-free means of recording muscle contractions transdermally (Harrison et al. 2013; Harrison, 2017).

A CURO unit is attached to a pair of CURO sensors and coated with acoustic gel. AMG recordings can be made in real-time and the measured parameters determine both temporal and spatial summation during muscle contraction (force production) as well as muscle efficiency/coordination (E-score). The summation parameters are expressed as a T- and S-score, and combined with muscle efficiency they comprise a unique ESTi™-Score.

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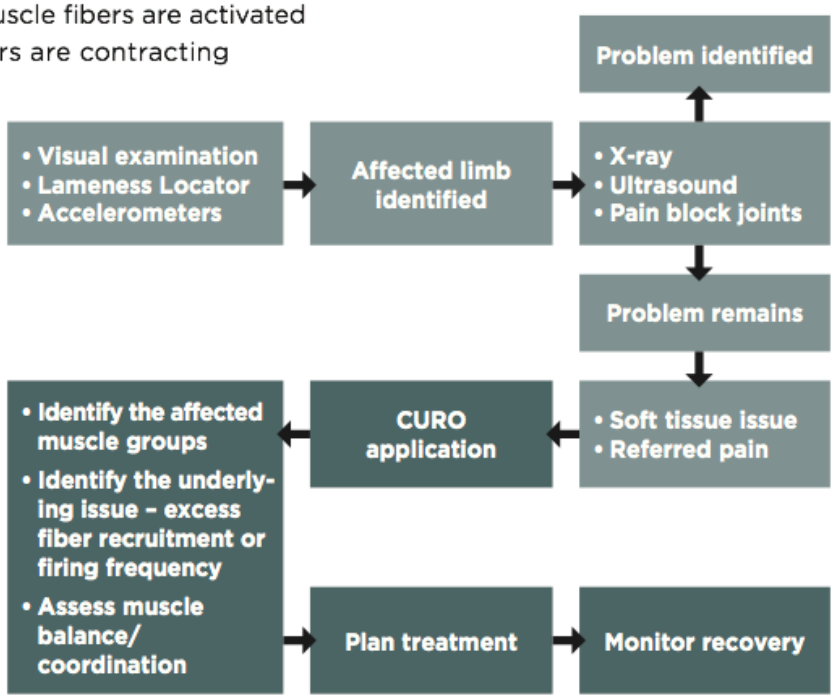
CURO Guide for Muscle and Ligament Health Care

Schematic help guide your use of the CURO

AMG MEASURES AN ESTI™-SCORE

E: How efficient/coordinated the muscle is activated
S: How many muscle fibers are activated
T: How fast fibers are contracting



VET CLINIC ASSIMILATION

A CURO measurement takes less than 10 minutes to setup and perform, and reveals immediate real-time results on an iPad. There is no need to shave or prepare the muscle site – just rub in acoustic gel (provided), position the CURO sensor and fix in place with adhesive bandage (provided). The FREE App (App Store – CURO Equine, canine or clinics) guides you through a recording, and helps you store and arrange your data.

Use AMG in combination with Ultra-sound, the Lameness Locator, Shock-Wave and other recognized-techniques to improve your diagnosis, monitor treatment effects and guide rehabilitation. The CURO system also enables dynamic assessments of horses undergoing training or re-training, giving you a unique possibility to assess their performance and muscle health.

REFERENCES: Am J Trad Chinese Vet Medicine Vol. 12, No. 1, February (2017) • Ann Sports Med Res 4(1): 1101 (2017) • SOJ Vet Sci 3(1): 1-6. (2017) • Physiol Rep, 1 (2), e00029, doi: 10.1002/phy2.29 (2013) • Open Veterinary Journal, Vol. 3(2): 80I84 (2013) • Clin Physiol Funct Imaging 38(2): 312-325 (2017).