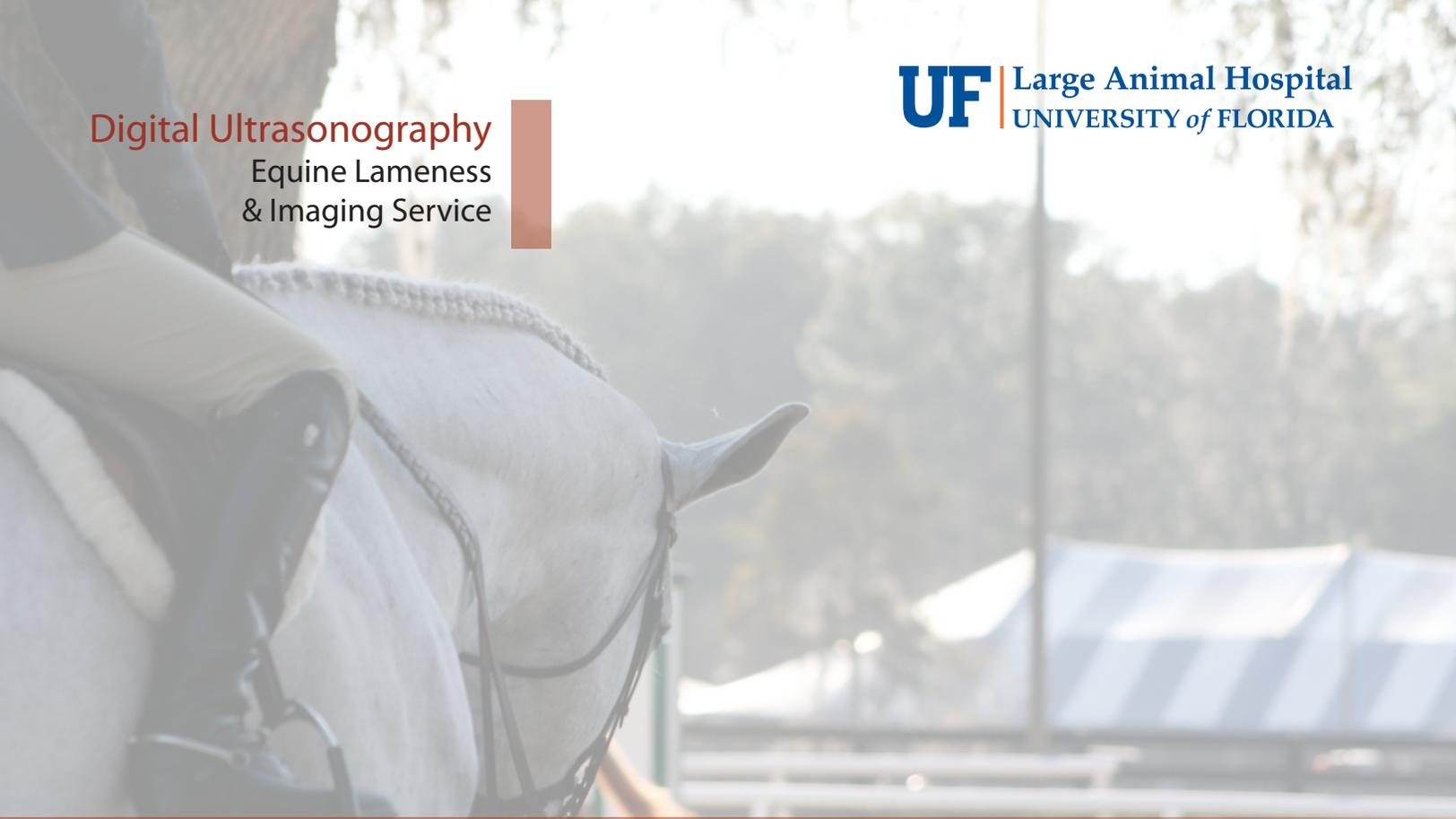


**Digital Ultrasonography**  
Equine Lameness  
& Imaging Service



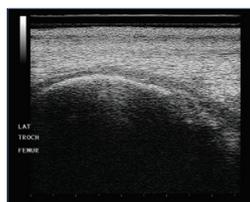
# University of Florida Digital Ultrasonography for the Horse

## What is digital ultrasonography?

Ultrasonography is imaging in real-time of soft tissue injuries such as tendon and ligaments, as well as joint and bone evaluation in certain areas. Ultrasound also has the ability to assess blood flow through vessels, organs and diseased tissues. Digital ultrasonography is ultrasound using a computerized or digital machine.

## How does digital ultrasonography work?

Digital ultrasonography uses sonar, or sound waves, which permeate the parts of the body being imaged. The sound waves travel through soft tissues, generating highly detailed images of structures such as internal organs, tendons and ligaments. There is no radiation exposure in ultrasonography as sound waves are used.



Ultrasound image of an LRT femur

## How can digital ultrasonography help lameness in my horse?

Digital ultrasonography can be used in the localization, diagnosis and treatment of a lameness issue. Because the modality is non-invasive and provides real-time images, digital ultrasonography is extremely helpful in providing further information to examine and monitor progress of the injury.

## Who can perform ultrasonography?

Even though many ultrasonographic units are mobile, a licensed veterinarian must perform the imaging procedure for accurate diagnosis. Knowledge of the structures being imaged and use of the machine are necessary to accurately identify and image structures within the body associated with lameness and other diseases.

## Digital Ultrasonography

- Sound waves are emitted by a probe called a transducer, which is covered in gel in order to help transmit the sonar signal from the probe to the structures being imaged.
- The real-time images are captured, then labeled and measured at the time of the ultrasound.

Ultrasonography cannot diagnose a lameness problem on its own. It is used as a supplemental modality to aid in diagnosis and to monitor treatment.



Author: Alison Morton, DVM, MSpVM, DACVS, DACVSMR

Updated 3/13