



High Field MRI - Frequently Asked Questions

What is the advantage of a high field MRI?

A higher field strength allows a better quality image to be obtained, with improved resolution (which means smaller structures and lesions can be assessed and identified). Images can also be obtained faster with a higher field MRI, so more types of images (called sequences) can be obtained in a study.

Does my horse need to be anesthetized for a high field MRI?

Yes. Given the configuration of the MRI, the horse has to be laying down for the examination and be completely still, which can only be achieved with the horse under general anesthesia. Our technical staff is well-trained in equine anesthesia protocols, from preparation of the patient prior to the procedure to recovery. We also utilize state-of-the-art monitoring equipment to ensure anesthetic safety for each patient. If you have any questions about general anesthesia and/or the risks involved, please contact us.

What is involved in preparing the horse for the MRI?

All horses will get a physical examination and ECG performed by an Animal Imaging veterinarian. Bloodwork will be performed to ensure the patient is healthy for anesthesia. An intravenous catheter will be placed in the jugular vein (neck) to administer medications during anesthesia. All shoes will be removed prior to the exam. Additionally, radiographs of the feet may be performed (depending on the study requested) to make sure there is no metal in the hoof.

What areas can be imaged?

Prior to the MRI study, it is important to ensure that the region of interest has been localized by the referring veterinarian. Areas that can easily be imaged with the 3T MRI include: hock, carpus, fetlock, pastern and foot as well as the head in most patients. However, due to the size of the bore (opening) of the magnet, there are some limitations as to what other areas of anatomy can be imaged. The stifle can sometimes be imaged in small equine patients. Please contact our office should you be interested in an equine stifle study and we can advise you regarding patient selection.

Can you take images of multiple areas of my horse?

In equine patients, a typical MRI study for a given area of anatomy (i.e., the foot from the toe to mid-pastern) typically takes 30-45 minutes to acquire. We can often accommodate horses that need to have multiple problem areas imaged during one anesthetic session; however, anesthesia time is limited to no more than 1.5-2 hours (which is equivalent to a maximum of 2-4 sites) in most cases for the safety of the patient.

**Why does an MRI exam take so long?**

Typical MRI studies are made up of multiple “sequences” and hundreds to thousands of images, which include all parts of the anatomy in the area of interest. The different “sequences” provide different information about the structure and pathology of the areas imaged. The radiologists at Animal Imaging will be reviewing all the images as they are acquired and can design the MRI protocol during the examination according to the history and problems identified in each horse.

When will I get a report?

The radiologists will review each individual image and write a thorough and comprehensive report, with images of abnormalities, within 24-48 hours. Every effort is made to understand and rank the clinical significance of the imaging findings based on the history and clinical exam. The referring veterinarian will then use the information from the report to design a treatment/management plan.

When should I arrive? When can I come and get my horse?

We ask that the patient be dropped off the afternoon prior to the MRI as we often perform these cases first in the morning. Most patients are recovered from anesthesia and ready to be discharged by 3:00pm the same day of the MRI exam.

How do I prepare my horse for the exam?

Because general anesthesia is used for the MRI, we ask that the horse not be fed after midnight the night before the appointment. It is, however, important that the horse has access to fresh water up until the MRI exam. There are no restrictions on medications; however, please let us know if your horse has had or is taking any medications.

What should I do with my horse after the examination?

Your horse can resume normal feed, water, and medications (if needed) when you get home, unless otherwise directed by the Animal Imaging veterinarians. The referring veterinarian will contact you after receiving the report and/or discussing the case with the Animal Imaging team. The referring veterinarian will be your source of contact should you have any questions about treatment or management of your horse.

Please call (972) 869-2180 should you have any further questions.

We are always happy to help.