

CLIENT INFORMATION SHEET

Computed Tomography (CT)

What is computed tomography (CT)?

CT is an advanced imaging technique that enables us to look very closely at specific parts of your horse – usually the head, neck, limbs, pelvis, and in small horses, the thorax and abdomen.

CT is useful for assessing bone, cartilage and dental abnormalities but can also evaluate certain soft tissue conditions, particularly masses. CT is often undertaken when your horse exhibits clinical signs such as facial swelling, difficulty eating, nasal discharge, headshaking, neurological signs, or lameness where radiography and ultrasonography have not yielded a diagnosis. CT evaluation can also be critical in assessment of fractures and intra-operative CT can also enable the surgeons to accurately and safely place implants at specific locations.

How does CT scanning work?

CT is similar to x-ray, however, CT creates a 3D image with improved detail. During the procedure, your horse remains stationary (either standing or lying on a table) and an x-ray tube rotates around your horse. The procedure is non-invasive and the scan itself is quick, with each scan lasting less than a minute.

Your horse's CT scan may be performed either standing while under sedation, or under general anaesthesia.



The procedure is very well tolerated by most horses and the procedure is usually only performed under general anaesthesia if the body part being examined requires the horse to be lying down (eg. limbs and pelvis), or if your horse is too small to reach the scanner while standing. If your horse does require a general anaesthesia, this will be discussed with you before the procedure.

All horses will have a catheter placed in their jugular vein; this is to enable sedation to be administered easily during the procedure. If your horse is undergoing a standing procedure, your horse will have all limbs bandaged. Over-reach boots are placed on the front feet and a tail bandage is also applied.

Your horse will then be required to stand in stocks while sedated, or lay on a table under general anaesthesia while the scan takes place. If your horse requires a general anaesthetic, your horse may need to stay in the hospital overnight for monitoring.



What is an artefact?

An artefact is any glitch in the quality of the images obtained; it is not a lesion. Artefacts can occasionally affect the quality of the images, meaning your horse may need to stay longer than planned to ensure we obtain sufficiently high quality images.

What can I expect when my horse is referred?

For some horses, a CT scan can be performed on an outpatient basis, so your horse will be able to be discharged within a few hours of coming into the hospital. Please be aware that this is only possible for horses that do not require treatment (for example, if your vet has requested imaging is the only procedure performed) and do not require a general anaesthesia. If treatment is required, this will typically commence the next day. The length of hospital stay will be dependent on the treatment required.



Horses requiring a CT scan under general anaesthesia may need to remain in hospital overnight either before or after the procedure (or both of the above, depending on the procedure performed). This is based on patient safety data for horses undergoing general anaesthesia.

Please be advised that a CT scan creates hundreds of images which can be viewed in any plane. Therefore, interpreting a CT scan takes considerable time.

Although we may be able to provide preliminary results at the time of your scan, it is more common for us to provide results within 24 hours (1 working day). For more complex cases, requiring additional review, you may be asked to wait for a longer period for your results. Please rest assured that we will contact you as soon as these results are available.

What are the potential complications?

The scanning itself is non-invasive so complications are rare. Your horse will have an IV catheter placed and will be sedated or anaesthetised. Complications associated with this include jugular vein issues including blockage (thrombosis) and infection of the vein, and colic. The specific risks of general anaesthesia will be discussed with you prior to the procedure if your horse requires an anaesthetic.

What treatment will my horse receive and what is the prognosis?

This scan is part of a diagnostic workup. Only after making the diagnosis will treatment options and prognosis be known. Be sure to ask your clinical team during your daily update if you have specific questions regarding prognosis.

