

COMPUTED TOMOGRAPHY (CT)

CT is a non-invasive imaging technique that uses a rapidly spinning x-ray machine which travels around the patient in a spiral as the patient travels through the gantry on a table. X-rays pass through the patient from all directions and the information is processed by a high powered computer to create a detailed, cross sectional image of the entire region. One advantage of CT over radiography is the ability to remove superimposition of overlying bone structures. Images can be reconstructed in a variety of planes and with different algorithms used to highlight different tissue types. 3D reconstructions can be made of body parts. CT is particularly useful for evaluating bone structures, lungs and for assessing blood vessels by means of intravenous contrast studies.

In collaboration with the Animal Hospital at Murdoch University, Vet Imaging Specialists is able to provide outpatient Computed tomography services.

CT can be used to investigate conditions such as:

- Assessment of bone structures (trauma, complex joints, skull, elbow dysplasia)
- Spinal disease with or without concurrent myelograms
- Nasal disease
- Diseases of the auditory system (ears, middle and inner ear)
- Thoracic pathology (metastasis, trauma, pleural effusion)
- Vascular studies (PRAA, portosystemic shunts)
- Urinary tract studies (ectopic ureters, ruptured urinary tract)
- Assessment of complex abdominal masses for surgical planning and metastatic screening.

CT can also be used to position biopsy needles into lesions that may not otherwise be accessible. Patients need to be fasted overnight as they will require a general anaesthetic for CT examinations. General anaesthesia is performed by the The Animal Hospital at Murdoch University's Anaesthesiology Department. Patients are generally admitted in the morning and can go home later in the afternoon.

