

CT: COMPUTED TOMOGRAPHY

The same high tech imaging systems used in humans are being used more and more frequently by veterinarians. As newer and better human equipment becomes available, more used machines are becoming available to veterinarians at a reasonable cost. Many veterinary schools and large referral practices have CT scanners in use today and many more will have them in the next ten years.

A CT scan is basically a large x-ray machine hooked up to a computer. Instead of the x-ray beam being spread out over a large area, a CT scan uses a very narrow, focused beam to x-ray a small cross-sectional slice of the body. The machine rotates around the patient and takes hundreds of these narrow slice pictures. The computer measures the amount of x-rays transmitted through each slice and mathematically reconstructs an image. Contrast materials can be used to outline particular areas or structures, as is done with conventional x-rays.

CT scans are especially useful for diagnosing diseases of the brain, nasal and sinus cavities, eyes, lungs, liver, adrenal glands, spine and elbow joints. Although CT scanning is a non-invasive technique, ionizing radiation is produced, as with a radiograph, so the same risks exist as do for regular x-rays. These are usually more of a concern for the personnel exposed to this radiation on a daily basis than for the patient.