

DIAGNOSTIC ULTRASOUND



Ultrasound (sonogram) is a diagnostic imaging tool that uses sound waves to generate an image of an animal's internal organs where radiographs (x-rays) are not able. An ultra-high frequency signal is sent out from the ultrasound probe and is reflected back to the probe by the various tissues that it contacts. An internal computer measures the reflected sound waves and generates an image of the scanned area on a monitor screen. Ultrasound is most useful for examination of the abdominal organs and the heart in small animals. Bone and air-filled structures, such as the lungs, are poorly evaluated with ultrasound. Although there are some limitations to its use, ultrasound is a non-invasive and safe way to examine internal organs for various disease processes.

Positioning for ultrasound is either with the patient on its side or lying on its back. Often the study can be done without shaving hair, but occasionally we need to shave some hair in order to get optimal skin contact with the ultrasound probe. The time it takes to perform an ultrasound study varies with each patient. A pregnancy diagnosis may take just a few minutes, whereas an involved abdominal ultrasound may take 20-30 minutes. Ultrasound is painless for the patient and most are very tolerant of the positioning and time required. Occasionally, mild sedatives are necessary if the patient is very nervous. The patient above was fully awake for this sonogram.

Although ultrasound has been widely used in human medicine for many years, it has only recently been integrated into general practice in veterinary medicine. Our doctors have invested many hours of continuing education and on-site training to introduce ultrasound to Ferry Farm Animal Clinic. We still utilize the services of specialists for cardiac ultrasound (echocardiogram) and for more advanced abdominal studies. We are also able to consult with radiologists by sending images over the Internet when needed.

Below are examples of the images that we are able to obtain with ultrasound. The image on the left is a canine liver and gall bladder. The center image is of the spleen and kidney in a dog. The image on the right is a tumor involving the spleen of a dog.

