

BENEFITS OF PERFORMING ULTRASOUND ON ANIMALS

You may be wondering why your veterinarian has recommended an abdominal ultrasound for your pet. The following article will explain how an ultrasound examination is used in veterinary medicine and when is it appropriate.

Ultrasound machines send sound waves into the body that are reflected back to a probe and interpreted by a computer, much like the echo that you hear when you yell out in a canyon. The sound waves bounce back at different strengths depending on the density of the tissue encountered. The computer can then present an image on the monitor that can be analyzed for abnormalities. The ultrasound is non-invasive, meaning it doesn't enter the body, and is pain free. The ultrasound is best on tissues or organs that are fluid filled. The liver, gallbladder, kidneys, adrenal glands, spleen, urinary bladder, pancreas, lymph nodes, and blood vessels of the abdomen can be readily imaged. The stomach wall and intestinal walls can also be evaluated, but their internal contents cannot be easily identified. Radiographs (X-rays) are also used to evaluate the abdomen but they are very limited in the amount of diagnostic information they provide when compared to ultrasound. Often both tests will be recommended to gather the most information.

A patient that presents with a swollen abdomen may have innumerable possible diseases and ultrasound is one of the most valuable tools in your veterinarian's armamentarium. Pancreatitis, a common and often life threatening disease can often be confirmed and sometimes its severity can be determined by ultrasound. Cancer of the spleen can often be detected early enough to allow surgical removal before metastasis (spread) occurs.

Bladder stones (even some that do not show up on X-ray) can be found. Gallbladders that may have been infected for a long time, adrenal glands swollen from hormonal diseases, kidneys suffering from exposure to antifreeze, liver fat deposition common in sick cats, lymphoma in the intestinal wall, large splenic masses that have leaked blood into the abdomen, large lymph nodes that may harbor metastatic cancers, pyometra (a life threatening disease of the uterus) and swollen prostate often seen in intact older male dogs all may be found with ultrasound.

Sometimes the abdomen is swollen because of an accumulation of fluid and ultrasound is excellent in determining the cause of the problem whether due to a poorly functioning heart or some other medical malady.

Recent articles have espoused the accuracy of finding foreign bodies in the small intestine over radiographs. Intussusception, a telescoping of the small intestine, is readily found in puppies allowing early surgical intervention. Ultrasound can also be used to guide biopsies of diseased organs so we can get accurate samples and avoid blood vessels and other fragile structures.

Needless to say, ultrasound has become a very important part of keeping our pets healthy! With the development of newer equipment and new techniques used to perform it, more detailed information can be obtained and we will see even more success with this unsung hero in finding previously hidden diseases.