Ultrasound in Animals

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People are most familiar with the type of ultrasonography known as a sonogram which allows the technician/doctor to 'look at' the fetus of a pregnant woman. An echocardiogram is an ultrasound of the heart.

Ultrasound is like ordinary sound except it has a frequency higher than humans can hear. The sound is reflected off of internal structures. The returning echoes are then received by the transducer and converted by an electronic instrument into an image on a monitor. The images can be printed or recorded on videotape. Extensive training is required in order to correctly interpret these images.

No pain is felt during an ultrasound exam, however, discomfort from pressure may be experienced. In general, animals do not need to be anesthetized for this procedure, but sedatives may be necessary for those animals that are aggressive or anxious. A water soluble gel is applied over the area to be examined and the transducer is placed on the skin (the pet's hair coat over the area to be examined is shaved). Ultrasonography may be used in guiding the needle when a biopsy of an internal organ such as the liver is necessary.

Widespread use in human and veterinary medicine for many years has not revealed any harmful effects with the medicinal use of ultrasonography.

Ultrasonography is most commonly used to obtain an image of soft tissue. In its two-dimensional form, ultrasonography is used extensively for abdominal (kidneys, liver, and gallbladder) and thoracic (heart) exams. It is useful in animals to diagnose pregnancy, as the fetal heartbeat(s) cannot be found early in pregnancy. Another type of diagnostic ultrasound, Doppler, is used in vascular diagnosis to assess blood flow. Other areas, such as the eyes, thyroid, breast, and testicles, can be imaged by ultrasound as well.