



Southern Counties

VETERINARY  
SPECIALISTS

# What is Ultrasound Scanning?

Information Sheet

**Southern Counties Veterinary Specialists  
Specialist Referral Service**

## What is Ultrasound Scanning?

Ultrasound scanning is a form of diagnostic imaging which, as the name suggests, uses very high frequency sound waves, well above the audible range for humans, dogs and cats to produce images of a desired part of the body. The use of sound waves means that this is an extremely safe diagnostic imaging method with no risk of harm to the patient during the examination.

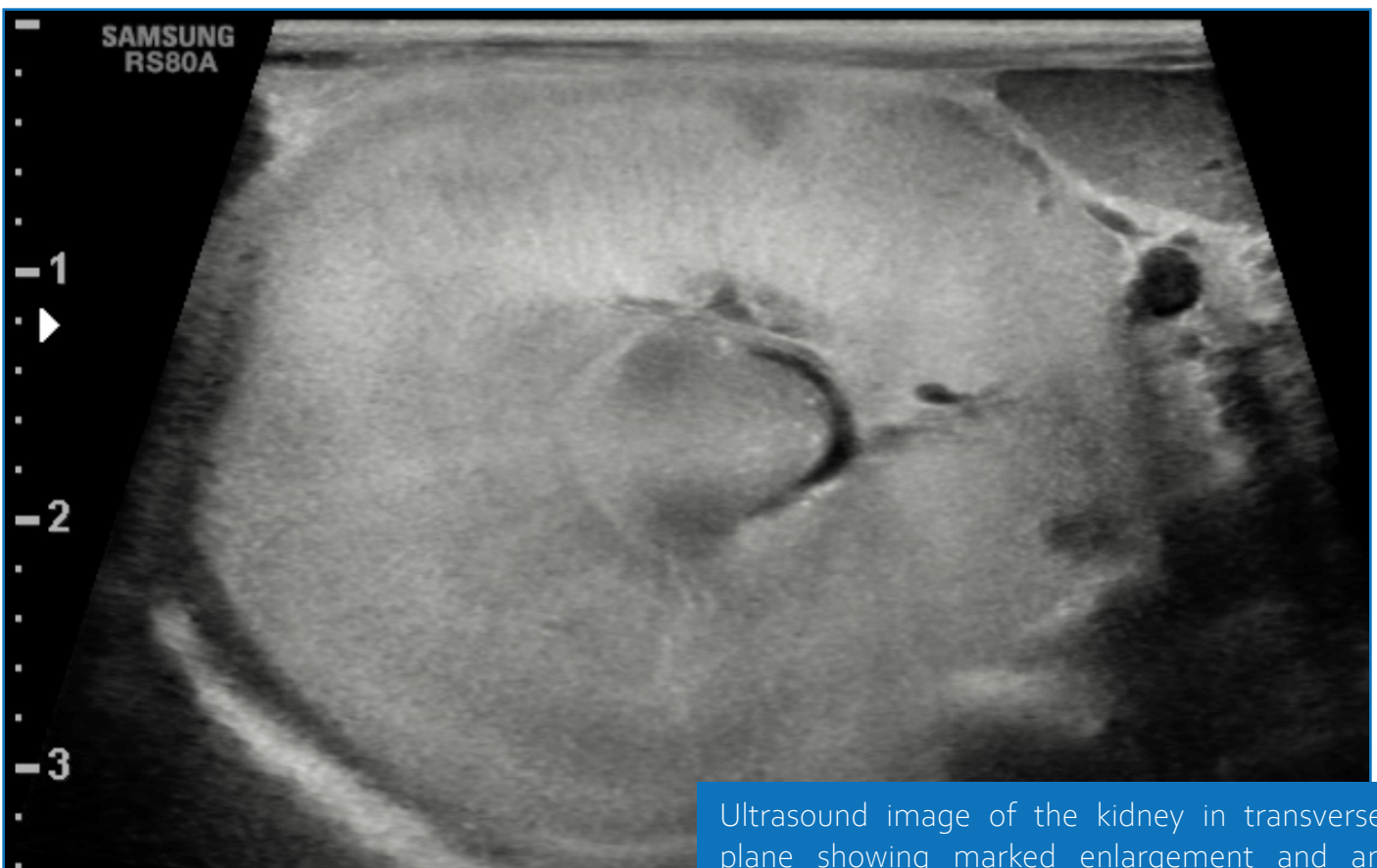
## How does Ultrasound work?

The ultrasound machine uses a small probe containing crystals which vibrate when an alternating electric current passes across them resulting in the formation of very high-frequency sound waves. These sound waves are directed into the tissues of the patient and

bounce off the organs and tissues producing “echos”. These “echos” are detected by the probe and turned into images by the machine.

## Do you need to clip the coat of my pet?

Unfortunately, the answer to this question is yes. The ultrasound waves do not like air and the coat of the patients traps air, greatly reducing the image quality and limiting the amount of information available from the scan. The contact between the probe and the skin surface must be very good and while we try to limit the amount of hair clipped, this is essential to get the best quality images. The contact is further enhanced by the application of a harmless ultrasound gel, which is gently warmed by our machine. Although we wipe the gel off at the end of the scan, you may notice some residue of the gel on your dog or cat afterwards.



Ultrasound image of the kidney in transverse plane showing marked enlargement and an increase in echogenicity (brightness) and a sub capsular hypoechoic (dark) infiltrate surrounding the kidney. These findings are suspicious of renal lymphoma which was confirmed using ultrasound to guide a small needle into the kidney to obtain a sample of cells.



## Do you need to sedate or anaesthetise my pet?

This depends on the type of scan being performed. Rest assured that if we don't have to sedate or anaesthetise your animal, we won't. However, to get the best possible images, particularly when scanning the abdomen, our radiologists will usually request that the patient is sedated, which relaxes your animal and helps to control the breathing (hence reducing the motion blur from fast breathing or panting).

Our radiologists obtain many samples of tissues and fluids with ultrasound guidance to obtain a specific diagnosis, reducing the amount of surgical procedures that are required. These samples are obtained by placing a needle through the skin and using ultrasound to guide the needle into the area of interest. In most instances, these samples are performed with the patient under heavy sedation or general anaesthesia.

## What can you use Ultrasound for?

Ultrasound is mainly used to scan the abdominal organs, however our Radiologists

are also trained to evaluate ligaments and tendons (for example the Biceps or Achilles tendons), the eye and the neck (particularly to evaluate the thyroid and parathyroid glands). We will also often look for the lymph nodes that drain a mass to look for tumour spread.

Ultrasound may also be used to evaluate consolidated lung, fluid surrounding the lungs or masses within the thorax. Ultrasound generally isn't useful for evaluating bones.

## Who performs the Ultrasound examinations?

All ultrasound examinations at Southern Counties Veterinary Specialists are performed by a Specialist in Veterinary Diagnostic Imaging, a residency trained Radiologist, or a resident in training under the direct supervision of one of our specialists. Our Radiologists have all undertaken a minimum of three years further training in diagnostic imaging and are very experienced in all aspects of ultrasound. This experience and knowledge combined with our top of the range Samsung RS80 ultrasound machine help provide a first class specialist referral service.



[www.scvetspecialists.co.uk](http://www.scvetspecialists.co.uk)

**Southern Counties Veterinary Specialists  
Specialist Referral Service**