About the department

We currently offer a Monday to Friday service for ultrasound.

We perform a variety of ultrasound examinations including: musculo-skeletal, abdominal, gynaecological, renal, head and neck. Ultrasound guided injections or fine needle aspirations are also undertaken. We do not offer obstetric scans at this site.

How should I prepare for an ultrasound?

For some examinations you may be required to have a full bladder and/or an empty stomach for the examination. Sometimes, the ultrasound scan may require no preparation. Please read your instructions carefully.

What can I expect to happen?

The ultrasound scan does not usually hurt but requires the sonographer to apply gel to your skin, place an ultrasound probe (transducer) on your body and apply some pressure to ensure a good contact.

Ultrasound scans take approximately 20 minutes. An ultrasound guided aspiration or ultrasound guided injection may take longer at around 30 minutes.

How does ultrasound work?

In an ultrasound examination, a transducer sends and receives sound waves. When the transducer is pressed against the skin, it directs small pulses of inaudible, high-frequency sound waves into the body.

As the sound waves bounce off internal organs, fluids and tissues, the sensitive microphone in the transducer records tiny changes in the sound's pitch and direction. These signature waves are instantly measured and displayed by a computer as black and white pixels, which in turn creates a real-time picture on the monitor. One or more frames of the moving pictures are typically captured as still images. Short video loops of the image may also be saved.

Transvaginal ultrasound scan is a special internal gynaecological scan, which requires a thin probe (camera) to be inserted inside the vagina with gel applied. It usually does not hurt but requires a bit of pressure to be applied initially, which can be slightly uncomfortable.

Doppler ultrasound, a special application of ultrasound, measures the direction and speed of blood cells as they move through vessels. Doppler ultrasound at QVH is used for diagnosing deep vein thrombosis.

Ultrasound guided fine needle aspiration (FNA) uses ultrasound to identify the area that needs a cell sample. Local anaesthetic is injected and then using an aspiration needle, a sample of tissue/cells is taken. Sometimes multiple samples will be taken in order to get as many cells as possible so that histology can make an accurate diagnosis.

Ultrasound guided biopsy uses ultrasound to guide the radiologist to take a sample of tissue from an area such as a lymph node or gland like the thyroid. The sample is then sent to histology for analysis. Sometimes, more than one sample is required to get an adequate sample for diagnosis. We have a separate leaflet detailing what happens for this procedure.

Ultrasound guided injection is an ultrasound guided steroid injection used to try and improve patient's symptoms of pain from several conditions that may affect your joints/muscles such as bursitis or tendinopathy.

Contact details

Should you have any further questions or queries, please do not hesitate to contact us.

Feedback about this leaflet is appreciated

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Queen Victoria Hospital
NHS Foundation Trust

Ultrasound

Radiology Services at Queen Victoria Hospital (QVH)

Please ask if you would like this leaflet in larger print or a different format.

Radiology Dept
Issue 2 – Ref: no. 0598
Approved by the Patient Information Group
Published November 2020 Review November 2023

qvh.nhs.uk