

# **PATIENT GUIDE TO ULTRASOUND**

## **What is an Ultrasound Scan?**

Ultrasound imaging is a method of acquiring information about the inside of the body using high-frequency sound waves. Because ultrasound examinations are captured in real-time, they can show the size, shape and texture of the internal organs and blood vessels. Ultrasound waves cannot pass through gas. As a result, the lungs, stomach or bowel cannot be evaluated. The examination is painless and does not involve ionizing radiation.

## **How is it performed?**

For some ultrasound scans, patient preparation may be required. Detailed instructions are given at the time of booking your appointment. These are also detailed below. For certain scans you may be required to fast, whilst for others you will be asked to drink several glasses of water and to fill your bladder prior to the examination.

You may be asked to change into a gown before your scan. During the procedure you will be asked to lie, usually face up, on the ultrasound bed. A gel is applied to the skin and an ultrasound probe (transducer) is moved over the gel to acquire the images.

For those having pelvic ultrasound examinations, you will be usually offered an internal ultrasound in addition to the scan though the abdominal wall. It is offered as it is often possible to get higher quality images when we scan internally as the structures we need to see are nearer the probe. Although we recommend it, there is no obligation to have this part of the scan done if you do not wish to do so.

Most examination takes approximately 30 minutes to perform.

## **How does it work?**

Ultrasound refers to high frequency sound waves that are inaudible to the human ear. Ultrasound imaging is based on the same principles as “sonar” utilized by boats and submarines.

During the scan, ultrasound waves are directed into the body. When they strike an organ within, they are reflected back creating an echo. The strength of the echoes returned

depends on the consistency of the structure. These returned echoes are instantly measured, converted to an electrical signal and displayed as a shade of grey. As the numerous echoes return as shades of grey, an image is gradually built up.

### **Risks**

For standard diagnostic ultrasound examinations, there are no known harmful effects.

### **When and where do I get the result?**

The Radiologist (a specialist imaging consultant) will write a report to your referring doctor detailing the findings of the ultrasound scan. The report is normally available from your doctor within three working days.

### **Any other questions?**

If you have any other questions, worries or doubts, please do not hesitate to ask one of the staff, or contact us prior to your appointment

## **PATIENT PREPARATION FOR ULTRASOUND**

### **ABDOMINAL ULTRASOUND**

- Six hour fast (No tea or coffee)
- Sips of water may be taken if required

### **PELVIC ULTRASOUND**

- Drink 1.5 litres of water.
- Patients should start drinking one and a half hours prior to appointment time.
- Water should be finished one hour before the appointment time
- Full bladder required.

### **RENAL ULTRASOUND**

- Drink 1 litre of water.
- Patients should start drinking one and a half hours prior to appointment time.
- Water should be finished one hour before the appointment time

- Full bladder required.

**All other ultrasound examinations require NO preparation**