FREQUENTLY ASKED QUESTIONS
(About ultrasound scans at Derriford)

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Can I use my mobile phone in the department?
What is an Ultrasound Scan?
It is the type of scan that pregnant mum’s have, but it can also be used on other parts on the body.

How does it work?
An ultrasound scan uses high frequency sound waves in very short pulses. These travel from a transducer, which rests on your skin, and are reflected off different tissues inside you and then received back at the transducer. The transducer passes the signal into a computer that displays an image of your insides on a screen. (Like a sonar or radar image.) Usually this image represents a thin 2 dimensional slice of your anatomy. The operator moves the transducer around to get the best views to help diagnosis, whilst watching on the screen for anything abnormal. They will record several images or short video clips to illustrate the scan and these are kept in a computer database that is part of your patient record. The operator will use a small amount of gel on your skin to ensure the transducer contacts your skin effectively.

What are the dangers?
Ultrasound is considered a safe process because, unlike X rays, it does not involve ionising radiation. It does involve putting a tiny amount of energy into your body but at such a low intensity that in general it will not produce any measurable effects at all. Whilst nothing can ever be said to be 100% risk free, ultrasound seems to be very safe. The risks of X rays were appreciated within a few years of their introduction in medicine, ultrasound has been in use for 50 years and there is no evidence of any harm to patients. The main risk to patients is that because it is relatively safe its use is not regulated as strictly and in theory untrained staff can operate or try to use it as a diagnostic tool. The main risk is that of misdiagnosis by operators who have not had sufficient training.

What are the advantages of ultrasound?
As discussed above, it is a relatively safe technique that can be repeated if necessary. The cost of the scanners is, by medical imaging standards, fairly low. It will produce images of tissues that X ray techniques do not show so well. (At the same time it is not very good at getting images of bone or gas which do show up well on X-ray). It is safe to use in pregnancy.

Who will perform my scan?
Ultrasound scans are performed by a variety of professional groups. These are specialist doctors, specialist radiographers, specialist medical physicists, specialist cardiac technicians or specialist midwives, (to name a few). Each one will have additional training and experience in ultrasound as well as the qualifications of their profession. The ultrasound department operates as a team, so that the most appropriate member of the team according to specific skill and availability will do your scan. Whoever does your scan will have the necessary training and experience and/or be closely supervised. We are a training department and the doctor or other health professional performing your scan may be a trainee. If so they will be directly supervised by a fully qualified and experienced practitioner.
How can I be sure it will be performed to a high standard?
As discussed in the previous question, we ensure all our staff are skilled and qualified. Also we regularly audit (test) our performance and have procedures and policies in place that are aimed at ensuring “clinical governance”. That means various ways to reduce errors, investigate complaints, monitor performance, and provide an atmosphere of continual education to keep practitioners fully up to date with best practice. The equipment we use is also routinely tested and regularly maintained and replaced when it becomes obsolete. (In ultrasound, the technology advances so rapidly that machines become obsolete long before they wear out, usually over a 5-6 year period.)

Can you guarantee an accurate result?
No diagnostic tool is 100% accurate or effective, and it is known that in about 1 in 20 cases ultrasound will miss something it ought to pick up. We aim to get as close to 100% accuracy as possible, or to notify your doctor if we feel the scan may be inaccurate. If you carry extra weight or ignore the preparation instructions then the effectiveness of the ultrasound scan may be reduced.

How long will I have to wait?
Our waiting times are all well within government targets, but the length of wait does vary according to the degree of specialisation of the scan. For the general run-of-the-mill examinations waiting times are of the order of 3-4 weeks. Where only one or two specialist practitioners are capable of performing the scan, then waits may be a little longer. Pregnancy scans are done at specific times of the pregnancy, currently at about 12 and 19 weeks. Other pregnancy scans are usually performed within a few days of the request but some cannot be done too soon after the last one, or are planned to coincide with antenatal clinic appointments. We will prioritise urgent scans so if you feel you need your scan urgently you should ask the doctor who is sending you for the scan if it can be done quickly, and if he agrees it is clinically urgent we will do it sooner.

Will I have to get changed?
This depends on the type of scan. For general abdominal and pelvic scans, we will usually ask you to change into a gown. This makes it easier to get to the part of your body we need to examine, and also prevents your clothing from getting gel on it. We provide clean gowns and dressing gowns, but you may bring your own dressing gown if you wish. If you prefer not to change then in most cases you will be able to remove clothing in the room. For most other examinations where access is easy we do not require you to change. For pregnancy scans it will be sufficient to pull your clothing up and down to expose your tummy, once you are on the couch.

What preparation is necessary before the scan?
We will send you written instructions on what to do with your appointment letter. If these are unclear there will be a phone number you can contact for more information. Please refer to the actual instructions given, but as a general rule we ask for a period of fasting before an abdominal scan, and a moderately full bladder for pregnancy scans. These preparations are aimed at getting the best possible images to help with diagnosis.
What will I have to do after the scan?
Usually you can just change back into your clothes (if you got changed) and just go home. A few specialised procedures that we do, usually where ultrasound is used to guide a biopsy (taking a sample of tissue), will need you to be monitored for a few hours, or to rest in a specific way. We will instruct you about this at the time if this is necessary.

How will I get the results?
Sometimes the person doing the scan will be producing the report, and may be able to give you the result if you ask. Sometimes the person doing the scan will need to discuss the images with a consultant before the result is known, and some staff gather images that are reported by a consultant later on. These people cannot give you a result at the time, but they will explain how you will get your results. As a rule, our results are sent within a day or two back to the doctor or practitioner who asked for the scan. This might be your own doctor or midwife, or it may be a hospital specialist. If your own GP or midwife asked for the scan, make an appointment to see them about a week later to allow time for the report to get back. If a hospital specialist asked for the scan they will normally contact you about the results or talk about them at your next appointment. If you have not heard anything within a reasonable time, and do not have an upcoming appointment, please ask your GP to chase it up.

Will I be able to watch?
It is important that the person doing the scan has a good view of the screen, and it is difficult to arrange the screen so that both you and they can see it. Therefore in general the screen will be pointing away from you and you will not be able to watch. In pregnancy scanning however, we appreciate that parents to be will want to watch, and so we will provide a separate screen, or turn the main screen, so that they can see.

Can I take photographs or videos of the procedure?
No, the Trust has a policy that prohibits photography or video recording on its premises. This is only possible when special permission is sought and given. This is to preserve the privacy and dignity of other patients and staff.

What will happen to the images of the scan?
All the images recorded during your scan are kept as part of your permanent record. They are stored as digital images on a central archive in what is called a PACS (Picture Archiving and Communication System). This a central NHS system that is aimed at keeping records throughout your life and enabling them to be available at any hospital or centre that you attend in future. For now, they are only available to staff with reason to see them at this hospital, but we will grant access to specialists at other hospitals if in your interest we need a further opinion. In future, when access controls are in place across the country, any doctor or health professional with need to see them should be able to. The images may be used for training, but only within this hospital. If used more widely or published for training purposes then any identification
that could link them to you as a person will be removed first and/or your permission sought.

**Can my friend, partner, or relative accompany me?**
Yes, we will allow at least one person to accompany you if you wish. You must agree yourself of course, bearing in mind that personal medical details might be discussed. Generally we limit it to one person, but in special cases and in pregnancy scans we can allow more, within reason.

**What is a Doppler ultrasound scan?**
This is a special ultrasound technique that uses “Doppler shift” information in the returning echoes to show where there is movement and measure that movement. This is useful in studying blood flow patterns in the heart and blood vessels.

**What is a Transvaginal ultrasound scan?**
It can be difficult to get clear views of the pelvic organs from the front of your tummy using normal techniques. Much better images are obtained by placing the transducer inside the vagina near the cervix. Here it is very close to the ovaries and uterus and there is no bowel in between to spoil the picture. Most women experience only mild discomfort at worst and the procedure is similar to having an “internal”. A thin probe about the width of a finger is inserted gently into the vagina and moved slightly to get the views necessary. Strict disinfection procedures and the use of condoms prevent any risk of cross infection. If you think you are sensitive (allergic) to latex or rubber-based products then you must inform the person doing the scan, or any of our staff, beforehand so that latex free products are used. It is perfectly possible to perform this procedure if you are having a period. We normally provide a chaperone for your safety but if we do not you may ask for one, or have a friend or relative with you.

**Can I use my mobile phone in the department?**
We know that ultrasound machines can be affected by radio interference. This may not always happen but it sometimes does and we cannot always pinpoint the source. In addition there are many other sensitive electronic devices in adjoining rooms that could be affected. For this reason we ask that all mobile phones are switched off in the department and waiting areas. The Trust places notices in specific areas where mobile phone use is allowed. Please only use your phone if you are in an area that is marked as being safe to use.