

It is important that no metal objects are inside you from previous surgery or procedures. You will be asked about this before the scan. You may have to remain still for up to an hour, but most scans take only 20-30 minutes. You can listen to music during the scan.

PET (Positron Emission Tomography) scan

This scan can be used to detect cancers. It is particularly good at finding small tumours that might have spread from another area. A chemical (radiotracer) is injected into the body and gathers where cells are most active - a sign of cancerous growths. Gamma rays emitted by the chemical are detected by a special camera, converted into an electrical signal and sent to a computer, which builds up an on-screen colour picture. The scanner is usually open rather than enclosed.

Camera tests (Endoscopy)

These types of tests use a tube-shaped camera to look into the body. They can also be used to take samples of tissue (biopsies). The most common types of endoscopy are colonoscopy (via the back passage) and gastroscopy (via the mouth). For these tests you will generally be very drowsy but not completely asleep. You may need special preparation for your bowel or stomach before the test. These will be explained to you beforehand.

When all the tests are done

A big question you might have when all the tests have been completed will be '*What happens next?*'

There is a very thorough process in place to look at all of the results and come up with a treatment plan. For all types of cancer there are meetings which take place every week where specialist doctors, nurses and other clinical people collect all of the information which has been gathered from the scans and discuss the way forward. These meetings are called multi-disciplinary team meetings.

Sometimes, this will be to decide there is no cancer present.

Sometimes, it will be to decide there is a cancer there which needs a particular type of treatment. In any case you will then be invited to an outpatient appointment to discuss the findings and the plan. Usually, the team waits until all the tests results are in before meeting you, so this may take a few weeks. It is a good idea to bring a relative or friend to this appointment, for support and to help remember what has been said.

www.royalberkshire.nhs.uk

Royal Berkshire Foundation Trust,
Berkshire Cancer Centre, Aug 2019
Review due: Aug 2021



**Having tests for
suspected cancer**
Information for patients

Having tests for a possible cancer

We know that this is likely to be a very worrying time for you and those who care for you. This leaflet has been designed to help you deal with some questions and worries you might have. It is worth remembering that many suspected cancers turn out not to be cancers at all. However, you need tests, including blood tests, to find out what the problem might be. It is also true that many cancers are very treatable. The doctors and nurses will speak to you about the plans for further treatment once the tests have been done.

Standard X-ray

Standard X-rays are simple 2-dimensional images of dense areas of the body, such as the chest, spine and abdomen. They can show major changes in tissues and organs, and are particularly useful to look at bones to show joint problems and bone fractures. Modern X-ray departments are able to store the images and view them on computers. Women who are or may be pregnant should avoid having X-rays or scans. X-rays are completely painless, and you cannot see or feel them, and a simple X-ray usually only takes a few minutes.

Mammogram

Mammograms can detect early breast cancers that can't be felt by physical examination. You will be asked to strip to the waist and stand in front of a mammogram machine. Each breast

is positioned in turn between two plates so that it is flattened, and a detailed picture is displayed on a digital screen. Although not painful, having a mammogram may be uncomfortable.

CT scan

The CT or CAT (computed axial tomography) scan is used to take detailed pictures of any part of the body. It gives a more precise image than an X-ray, and can also be used to look at the brain. The CT scan takes a series of image 'slices' at different angles, and unlike a flat x-ray which gives a 2-dimensional image, a CT scanner can be moved up and down the body to produce an in-depth cross-sectional image. The doctors may also recommend that a biopsy is done of the area of abnormality while you are having a CT scan. The scanner is not enclosed, and looks like a giant 'Polo' mint.

Depending upon which part of the body is being scanned, a dye (called a 'contrast') may be used to help get clearer pictures. For example, before a scan of the abdomen you may be given a flavoured drink containing barium, which will show up on the X-rays as it moves through the digestive tract.

Bone scan

A bone scan is a test that looks at the activity of some cells in your bones. The bone scan can be used to look for many different things, such as injury, infection, cancer and other causes of bone damage. The scans are taken by a special machine called a gamma camera.

This is not a tunnel, but the camera detector will come close to you. There are sensors in the camera which stop it moving if it gets too close so it won't touch you.

Ultrasound scan

This is for examining soft tissues, and internal organs.

Ultrasound can also find changes in the soft organs of the body such as cysts or gall stones by using high-frequency sound waves to form a picture of the internal organs.

Acoustic gel is applied and a probe, which is attached to the machine, is moved across the area being examined. The doctors may also recommend that a biopsy is done of the area of abnormality while you are having the ultrasound scan.

MRI scan

An MRI (magnetic resonance imaging) scan shows fine detail of soft tissue, tendons, nerves and muscles, and is used for images of the brain and musculoskeletal system. The MRI scanner can build up a view of the whole body, and as no radiation is involved it is the preferred way to scan children. It produces a powerful magnetic field, causing the body's cells to give off electrical signals which a computer turns into images. Patients lie on a couch which slides into the scanner (a short tunnel surrounded by a large circular magnet) so that pictures of the body can be taken. A computer in a separate room is used to operate the scanner.