

CT guided percutaneous drainage

Radiology Department



[Patient information leaflet](#)

The leaflet tells you about having a computerised tomography (CT) guided percutaneous drainage. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your clinician, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the consultant who has referred you for the test or the Radiologist who is going to perform it.

The Radiology Department

The radiology department may also be called the x-ray or diagnostic imaging department. It is the facility in the hospital where radiological examinations of patients are carried out, using a range of equipment.

Who does what?

Radiologists are specialist doctors trained to interpret x-rays and carry out more complex examinations.

They are supported by **specialist radiographers**, who are highly trained to carry out x-rays and other imaging procedures.

Radiology Nurses are specialist nurses who will assist the Radiologist and care for you throughout the procedure until you are handed back to the ward nurses, who will collect you from CT.

Prior to this diagnostic test being performed, the Radiologist will explain fully the whole procedure and allow you to ask any questions you may have regarding the test.

A written consent will be required. (You should have sufficient explanation before you sign the consent form).

What is a CT guided percutaneous drainage?

Everyone knows what an abscess is, and how painful it can be, and how ill it can make you feel. In the past, drainage of an abscess/ collection inside your chest or abdomen would have required an open operation. Now it is possible to drain collections by inserting a plastic tube(s) called a drainage catheter, into the abscess/collection through the skin, with only a tiny incision.

This procedure is called percutaneous (through the skin) abscess drainage.

Why do I need percutaneous abscess drainage?

Other tests that you have probably had performed, such as an ultrasound or CT scan, will have shown that you have an abscess/ collection, and that it is suitable for drainage through a tube, rather than by an operation.

Abscesses/collections can make you very ill, and if they occur after surgery, can delay your recovery. Although antibiotics can help, they cannot really be effective against a large or longstanding abscess. However, once pus has been drained, this can be sent to the laboratory for tests to show which the best antibiotic to treat the remaining infection is.

Are there any alternatives to percutaneous drainage?

There are no alternatives, but further treatment options would depend on the outcome.

Who has made the decision?

The consultant in charge of your case, and the Radiologist doing the drainage will have discussed the situation, and feel that it is the best treatment option for you. However, you will have the opportunity for your opinion to be considered, and if, after discussion with your doctors, you do not wish the procedure to be carried out, you can decide against it.

Before your appointment

Please contact the CT department if you are diabetic, taking any blood thinning drugs, have renal impairment or if you know that you are allergic to x-ray dye (iodine). If you are asthmatic, please bring your inhaler or asthmatic medication with you to your appointment.

Who will be doing the percutaneous biopsy?

A specially trained doctor called a radiologist. Radiologists have special expertise in using x-ray and scanning equipment, and also interpreting the images produced. They need to look at the images whilst carrying out the procedure.

How do I prepare for percutaneous drainage?

You need to be an in patient in the hospital.

Your doctors will need to have taken blood for clotting, platelets and renal function and the results must be available prior to the procedure.

You will be routinely screened for MRSA (Methicillin-resistant *Staphylococcus aureus*) prior to the planned procedure.

You will be asked not to eat for four hours but can drink water up to one hour prior to the procedure, unless otherwise advised.

You will be asked to put on a hospital gown and a cannula will be placed in a vein usually on the back of the hand.

If you have any allergies, you **must** inform the staff looking after you. If you have previously reacted to intravenous contrast medium (the dye used for kidney x-rays and CT scans) then you must tell the radiographers.

What actually happens during a percutaneous abscess/ collection drainage?

You will be asked to lie on the CT scanning table, in the position that the radiologist has determined is more suitable.

If you have not already a cannula placed in the back of your hand or arm, then one may be inserted at this point.

The radiologist will use the CT scan images to decide on the most suitable point for inserting the drainage catheter.

The Radiographers will accurately mark this point with an indelible pen using the centring lights on the scanner to guide them.

The Radiologist will keep everything as sterile as possible, and may wear a theatre gown and operating gloves. Your skin will be cleaned with antiseptic, and you may be covered with a sterile drape.

Your skin will then be anaesthetised, and the biopsy needle inserted into the collection.

What happens next will vary in different situations. Any pus may simply be drained through the needle (aspirated), or a slightly larger needle or plastic tube, which is then withdrawn altogether. Alternatively, it may be necessary to place a larger drainage tube (catheter) into the collection and attach it to the skin, with a special dressing, so that the pus can continue to drain for several days.

While the first part of the procedure may seem to take a while, actually performing the percutaneous drainage does not take very long at all, using the CT scans to accurately guide the needle/ catheter into position.

You must keep as still as possible during this stage, if it becomes too uncomfortable please let us know.

Will it hurt?

Most percutaneous drain insertions are uncomfortable for a short period of time. When the local anaesthetic is injected, it will sting to start with, but this soon passes off, and the skin and deeper tissues will soon feel numb. Later, you may be aware of the needle, or the wire and catheter, passing into the collection(s) and sometimes this is painful.

There will be a nurse and radiographer looking after and monitoring you throughout the procedure.

How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straight forward the procedure will be. It may be over in twenty minutes, depending on the complexity and number of percutaneous drains to be inserted.

What happens afterwards?

You will be taken back to your ward on a trolley accompanied by a nurse.

Nurses on the ward will continue to carry out observations, such as your heart rate and blood pressure to make sure there are no problems for several hours post procedure. You will generally stay in bed for a few hours, until you have recovered.

If the drainage catheter has been left in your body for the time being, then it will be attached to a collection bag. It is important that you try and take care of this. You should try not to make any sudden movements, for example getting out of a chair, without remembering the bag, and making sure that it can move freely with you. It may need to be emptied occasionally, and the catheter may require flushing with a saline solution.

How long will the catheter stay in, and what happens next?

These are questions which only the doctors looking after you can answer.

It may only need to stay in a short time. It is possible that you will need further scans to check that the collection has been drained satisfactorily. You will be able to lead a normal life with the catheter in place, and when the catheter is removed, generally there is only slight discomfort.

Are there any risks or complications?

Percutaneous abscess/collection drainage is a very safe procedure, but there are a few risks or complications that can arise, as with any medical intervention.

Perhaps the biggest problem is being unable to place the drainage tube satisfactorily in the abscess. If this happens, your consultant will arrange another method of draining the collection, which may involve surgery.

Rarely, you may get a shivering attack (a rigor) during the procedure, but this is generally treated satisfactorily with antibiotics.

There is also a possible risk of infection or bleeding, but these complications are rare.

The procedure is normally very safe, and will almost certainly result in a great improvement in your medical condition. Very occasionally an operation is required, but if the percutaneous drainage had not been attempted, then this operation would have probably been necessary anyway.

In conclusion

Some of your questions should have been answered by this leaflet, but this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form.

Privacy and dignity

Sometimes tests, although necessary, can be embarrassing or undignified for patients but we promise to do everything we can to make you as comfortable as possible during your visit to the department.

Patient surveys

We value your opinion on our service and in order to deliver, maintain and improve this service we ask you to complete a short patient questionnaire survey found with your appointment letter.

Completion of these surveys is entirely voluntary.

Questions and contacts

Following the examination, if you experience any problems please contact the CT Department between 08:30 and 17:00. Outside these times please contact your GP.

If you have any questions or would like to know more about this procedure, please telephone the CT Department on:

01483 464151 (Direct line)

01483 571122 Extension **4151 / 4414**

If you are unable to keep your appointment notify the CT scanner clerical staff as soon as possible.

For further information about Diagnostic Imaging Services at Royal Surrey County Hospital NHS Foundation Trust, please contact:

Royal Surrey County Hospital NHS Foundation Trust
Egerton Road
Guildford
Surrey
GU2 7XX

www.royalsurrey.nhs.uk

Key reference sources and other sources of information

British society of Interventional Radiology

- www.bsir.org/media/resources/BSIR_Patient_Leaflet_-_Percutaneous_Drainage.pdf

Radiation Dose

- www.gov.uk/government/publications/ionising-radiation-dose-comparisons/ionising-radiation-dose-comparisons

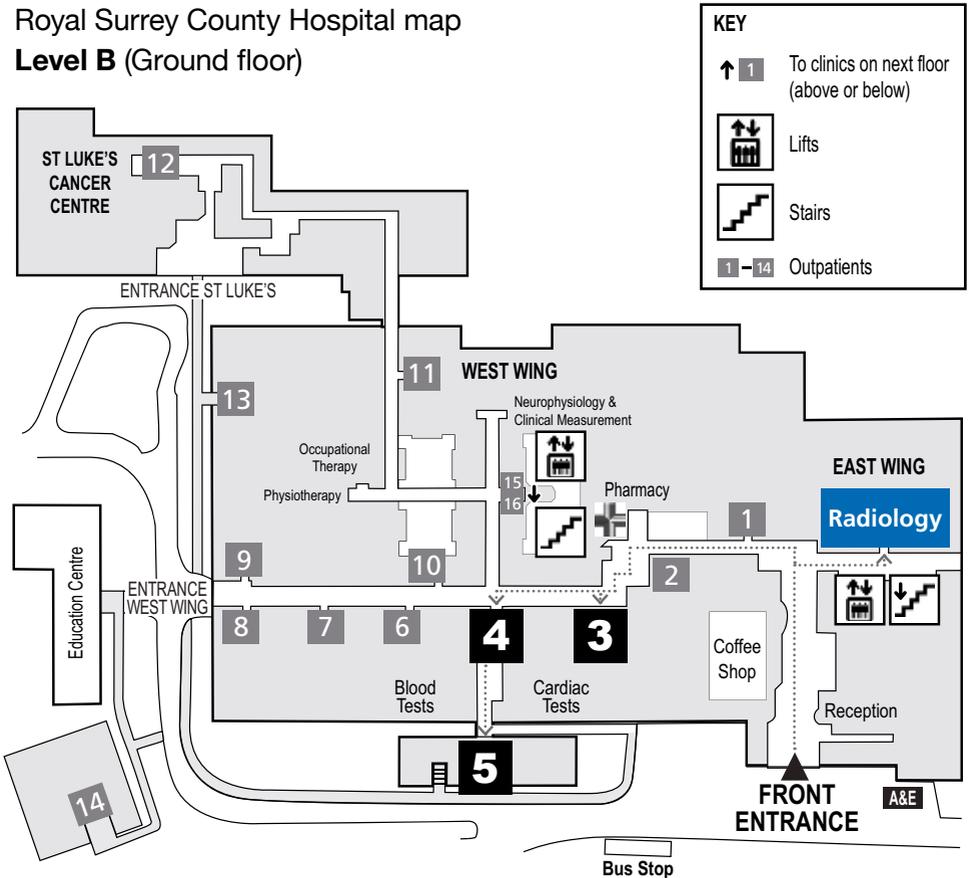
NHS choices – CT Scans

- www.nhs.uk/Conditions/ct-scan/Pages/Introduction.aspx

How to find the Radiology Department

Royal Surrey County Hospital map

Level B (Ground floor)



Data sharing reference information is available on Royal Surrey County Hospital patient information leaflet entitled:

Your Healthcare records – your information, PIN120703–562

Royal Surrey County Hospital NHS Foundation Trust

Egerton Road

Guildford

Surrey

GU2 7XX

www.roysurrey.nhs.uk

Radiology Department contact details

If you have any questions or would like to know more about this procedure, please telephone the CT Department on:

Telephone: 01483 464151 (Direct line)

Telephone: 01483 571122 **ext** 4151 / 4414

If you are unable to keep your appointment, please contact us as soon as possible.

PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–3.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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