

Patient Information

Plastic Surgery

Sentinel lymph node biopsy for skin cancer (melanoma)

Reason for a sentinel lymph node biopsy

This leaflet explains what a “sentinel node biopsy” is and the reason for undertaking this surgical procedure. It should be used as a guide only to help you remember the points discussed with you by your doctor.

If you have any questions or worries, please ask any member of staff or use the contact numbers provided. The decision to have this further investigation is between you, the plastic surgeon and finally the anaesthetist .

Please inform the staff if you are, or think you may be pregnant, or if you are breast-feeding.

What is a lymph node?

A lymph node is part of the body’s lymphatic system, which is a network of vessels that carry fluid called lymph around the body. These vessels are attached to lymph nodes that trap and filter any harmful substances that may be present, such as infection or cancer cells. These groups of lymph nodes are found in the neck (cervical), armpits (axilla), groin (inguinal), chest and abdomen.

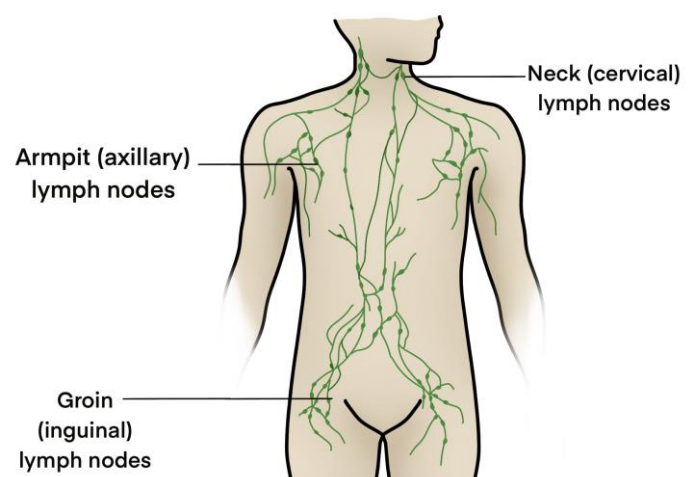


Image designed by Nalan Kaya.



Why do I need a sentinel node biopsy?

A sentinel node biopsy involves removing tissue to determine if skin cancer has spread at an early stage. It is a diagnostic procedure. It provides us with some extra information about what may happen in the future and can allow access to further treatments at an earlier stage in selected cases.

However, it has not yet been proven that this procedure increases the length of life when only surgery is used. This is in comparison to being kept under observation and removing the lymph nodes only if they become larger after the cancer has spread. Access to other types of treatment such as immunotherapy, based on the outcome of the biopsy, can improve long term survival.

What is a sentinel node?

Cancer cells can sometimes spread to the lymph nodes nearest to the site of the original skin cancer. The sentinel node is the first node that the lymph fluid drains into from the initial skin cancer site.

What is a sentinel lymph node biopsy and what is the benefit?

A sentinel lymph node biopsy is an operation to remove 1 to 2 lymph nodes called the sentinel lymph nodes, which drain fluid from the initial skin cancer site. These nodes will then be analysed to determine if the cancer has spread from the original site to these lymph nodes. A disease-free (negative) sentinel lymph node biopsy suggests with an accuracy of 90% to 95% that the cancer has not spread. Due to this not being 100%, we would continue to follow you up in clinic for monitoring.

A positive result indicates that the cancer has spread to these lymph nodes and may be present in the other lymph nodes within that area. The team will discuss this with you in more detail in the results clinic. A positive result may also give you further treatment options following this investigation.

There are situations where you may be asked about your cancer and the stage of cancer. This may be, for example when going on holiday, or when renewing insurances or mortgages. Having a positive lymph node will

Patient Information

change the stage of the cancer, for example from stage 1 or 2 to a stage 3. This may affect obtaining or renewing policies in the future.

The operation

First stage

The day before or on the morning of your operation, you will have the first part of the test called a Lymphoscintogram. You will go to the nuclear medicine department (part of X-ray department) and will be given a radioactive injection or tracer around the scar site of your skin cancer. This should travel to the sentinel node. This process can be uncomfortable or slightly painful.

The path of the tracer is mapped out while you lie on a bed, which is attached to a scanner (called a gamma camera). These produce pictures, which demonstrate the site of the likely sentinel lymph node(s). This process usually takes about 1 to 2 hours.

This test does not tell us if the skin cancer has spread, it just tells us where to look. You may sometimes have to move and walk about to encourage the uptake of the radioactive injection, but the team will make you aware of this if required. Unfortunately, in some cases the tracer does not move as expected, therefore the investigation cannot go ahead. This does not mean there is anything wrong.

Second stage

Later the same day or the following day, you will go to theatre where you will receive general anaesthetic. You would have already had your pre-operative assessment to make sure that you are fit enough for this operation. You will also receive instructions on when to stop eating and drinking in preparation for surgery.

During the operation, while you are asleep under anaesthesia, a dye may be injected around the scar from your skin cancer. A handheld scanner will be used over your skin to find the sentinel node. When the node is located, we will then make a cut in the skin to look for and remove the node(s) that are stained with the dye. These nodes will then be sent to the laboratory to be examined under a microscope by our pathology experts.

Patient Information

We will normally also remove more skin around the site of the original skin cancer (wide excision). The wound will be stitched and the wider excision of the skin cancer, if required, will be reconstructed as discussed with you before this operation. There may be some stain left over from the dye, if it was used, but this should disappear over a few months. The whole procedure typically takes around 90 minutes.

After the operation, you will be taken to the ward where you may have a drip in your arm. The nurse will check your wounds and dressings. When you pass urine, you may notice that it is green, but this is normal and will soon resolve. They will also advise you regarding future dressing and follow up appointments.

You are usually able to go home either the same day or the following morning.

You should receive 2 appointment letters for this investigation, 1 for the morning radiology appointment and another for the operation in the theatre.

Important Note: If you do not receive 2 letters, please let us know immediately.

Please note that for most patients, the entire day is spent at the hospital for these 2 procedures. There is also a period of 'free' time in between completing the first stage and being able to leave the radiology department and starting the second stage. Therefore, please bring an activity with you, such as a book, to help the time pass.

Your Macmillan skin cancer nurse specialists will not be with you during this day but if required, one of the team you are with will contact them.

The results and follow up appointments.

Arrangements will be made for you to attend the dressing clinics to check and monitor the wounds.

Patient Information

The results take around 4 - 6 weeks to be reported. You will receive these results at your appointment with either the consultant surgeon or with the advanced nurse practitioner.

If we find no evidence of skin cancer (negative), you will not need any further surgery at this time. However, it's important to have close observation and regular check-ups at the hospital. Further drug treatment may be discussed with you, dependant on your original stage of cancer.

If we find evidence of skin cancer (positive) then you will be offered a CT or PET-CT scan to check the rest of your body for any signs of skin cancer. We will discuss the next steps with you if you have a positive result in more detail if required.

Is the radioactive tracer dangerous?

No. The amount of radiation you receive is small. It is similar to that from an X-ray examination.

Complications and risks

These are some of the rare problems that we sometimes see. They can happen at the site of the wide excision of the skin cancer, or at the site of the sentinel lymph node biopsy:

- Fluid collection: It is sometimes possible that a collection of fluid (seroma) can gather under the wound.
- Infection: As with all operations, infection is a possibility. Signs of this are redness and tenderness around the wound. This can be treated with antibiotics if required. This may need to be drained.
- Scarring: As with any surgery you are left with a scar which may feel tight to start with, but with time and massaging and moisturising this area, the scar should relax and soften.
- Reaction to the dye: There is a risk of some patients/people having an allergic reaction to the dye. In very rare cases this can be very serious.
- Staining: If a dye is used it may occasionally stain the skin and usually takes several months to clear and in some patients over a year.
- Urine colour change: The dye may colour your urine blue/green. This will last 24 to 48 hours, then return to normal.

Patient Information

- **Numbness:** You may have a tingling feeling or numbness around your wound. This should return to normal through time.
- **Discomfort:** Your wound may be sore for a few days/weeks after surgery. Gentle massage can also help. Painkillers may help to ease the pain, for example paracetamol.
- **Lymphoedema:** Rarely, people will develop some swelling in their leg or arm due to poor drainage.
- **Wound opening:** Your wound may open (dehiscence) due to any of the above. We will need to treat the cause of this and redress the wound until fully healed.
- **False negative results:** occasionally (5-10%) skin cancer can later recur in the same or an alternative site to the initial sentinel lymph node biopsy. As such, you will remain under follow-up for up to 5 years. You will also be taught how to self-examine to look for signs of recurrence.

Following the operation

Anxiety: This may be a worrying time for you. The team are here to support you. If you feel you are not coping well or would like to go over things, please contact your Macmillan skin cancer nurse specialist.

Tiredness: You may feel tired after this procedure so take it easy for the first week. You will slowly be able to resume your normal activities.

Driving: Before resuming driving, you will need to be fully recovered from your surgical procedure. You should be free from the distracting effect of pain or the sedative or other effects of any pain relief medication you may be taking. You should be comfortable in the driving position and able to safely control your car, including freely performing an emergency stop. This may take up to 2 weeks. You must check with your car insurance company regarding cover before you return to driving.

Working: You will be able to work once you feel up to it. If you require a sick note, please let the surgeon know before you leave. The type of work you do may determine how long you need off.

Activities: You may require some help up to a week or more post the procedure, with activities such as shopping and housework.

When do you need to contact us?

You will be given advice on exercises, wound care and hygiene. If you experience any of the following, please contact the nurses (see below). **If you do require admission to the hospital because of infection, we would prefer for you to attend here at Coventry (UHCW) where your surgeon is based and is able to continue to treat you appropriately.**

Any care or treatment given from this point should be under the advice of the UHCW plastic surgery team.

- Pain that cannot be controlled with painkillers
- A high temperature
- Inflammation or redness at the site of the surgery
- Continuous weeping/ offensive odour or bleeding from the area of surgery

If you have any further questions, please do contact either:

- Macmillan skin cancer nurse specialists on 024 7696 6085
- Plastic surgery nurses on 024 7696 4000 and ask for bleep 1676

Other contact details

- Plastic surgery secretaries: 024 7696 5287
- Macmillan Cancer Information Centre, Main entrance UHCW
024 7696 6052

We would like to acknowledge Oxford University Hospital NHS trust and Queen Elizabeth Hospital Birmingham for the information within this leaflet.

Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please ask or contact 024 7696 5225 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

Did we get it right?

We would like you to tell us what you think about our services. This helps us make further improvements and recognise members of staff who provide a good service.

Have your say. Scan the QR code or visit:

www.uhcw.nhs.uk/feedback



Document History

Department:	Plastic Surgery
Contact:	26085
Updated:	December 2024
Review:	December 2026
Version:	3
Reference:	HIC/LFT/2288/18