

Dermatology/Plastic Surgery/Oncology

Sentinel lymph node biopsy for skin cancer (melanoma)

Reason for a sentinel lymph node biopsy

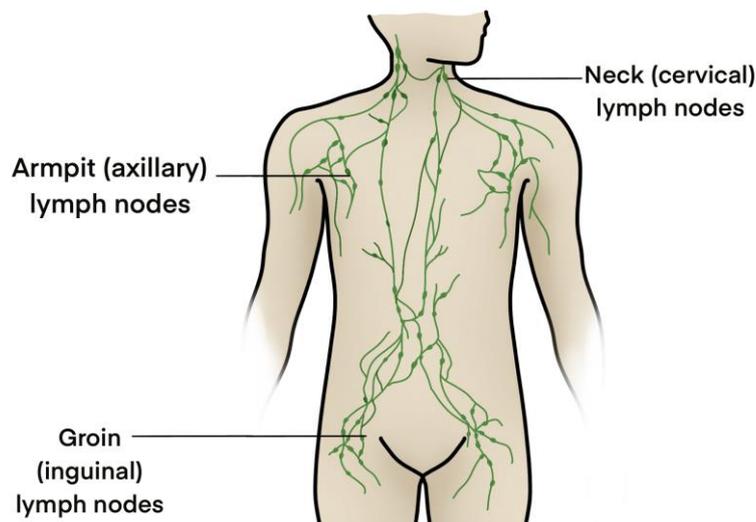
This leaflet explains what a “sentinel node biopsy” is and the reason for undertaking this surgical procedure. It should be used as a guide only to help you remember the points discussed with you by your doctor.

If you have any questions or worries, please ask any member of staff or use the contact numbers provided. The decision to have this test is yours.

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.



Why do I need a sentinel node biopsy?

The biopsy (removing the tissue) can help us tell if the 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, guidance about further treatment and may allow you to be involved in trials of new treatments.

However, it has not yet been proven that this procedure increases the length of life compared to being kept under observation and only removing the lymph nodes if they become larger after the cancer has spread. Therefore, there is no proven survival benefit as of yet.

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 one to two lymph nodes called the sentinel lymph node, which drains fluid from the initial skin cancer site. It will then be analysed to determine if it has spread from the original site to this lymph node. 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 this lymph node and may be present in the other lymph nodes within that area. The team will discuss this with you in more detail in clinic.

A positive result may also give you more options with treatments now or in the future if required. Clinical trials of newer treatments often require that you have a sentinel lymph node biopsy.

Patient Information

There are situations that you are asked about your cancer and the stage of cancer. This may be, for example when going on holiday, or when renewing insurances/ mortgages. Having a positive lymph node will change the stage of the cancer, for example from stage 2 to 3. This may have an effect on obtaining or renewing policies etc. 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/tracer into the skin around your skin cancer scar site. This should travel to the sentinel node. This 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). The 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.

Second stage

Later the same day or the following day, you will have your operation under a general anaesthetic and will be asleep. You should have already had your pre-operative assessment undertaken to ensure you are fit enough for this operation. You will also be told when you should stop eating and drinking in preparation for surgery.

When you are asleep, a blue dye is injected into the skin around the skin cancer scar and a handheld scanner over your skin is also used 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 that is stained with the dye. This is then sent to the laboratory to be examined under a microscope by our pathology experts.

Patient Information

We also may 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 prior to this operation. There may be some blue stain left over from the dye but this should disappear over a few months. The whole procedure typically takes around 90 minutes.

You will be taken to the ward following this procedure and 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 dressing etc.

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

You should receive 2 appointment letters for this investigation, one for the morning for radiology and a second for the theatre.

If you do not receive 2 letters please let us know immediately.

Please note, the length of time spent at the hospital for these 2 procedures for most patients is the entire day. 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 read, to help the time pass.

Your Macmillan 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

Arrangements will be made to attend the dressing clinics to be checked and monitor the wounds.

The results take about up to 4 weeks and you will get them at your next clinic appointment either with the consultant surgeon or with the advanced nurse practitioner.

Patient Information

If we find no evidence of skin cancer (negative), you will not need any further surgery at this time, but it is important to have close observation, and you will have regular check ups at the hospital clinic.

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 signs that the skin cancer has spread beyond the lymph nodes. We will discuss the next steps with you if you have a positive result.

Is the radioactive tracer dangerous?

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

Are there any side effects / complications?

These are some of the rare problems that we sometimes see. They can occur 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: The blue dye may occasionally stain the skin and usually takes several months to clear and in some patients over a year.
- Urine colour change: The blue dye may colour your urine blue/green. This will last 24 to 48 hours, then return to normal.
- 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.

Patient Information

- Lymphedema: Rarely, people will develop some swelling in their leg or arm due to poor drainage
- Wound opening: Your wound may become opened due to any of the above. We will need to treat the cause and redress the wound until fully healed.
- False negative results: occasionally (5-10%) skin cancer can later recur in 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 reoccurrence.

Following the operation

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

Tiredness: You may feel tired following 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 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 get in touch with the nurses (see

Patient Information

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 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 nurses on 024 7696 6085
- Plastic surgery nurses on 024 7696 4000 and ask for bleep 1676

Other contact details

- Plastic surgery secretaries: 024 7696 4000 and ask for plastic surgery secretaries
- Macmillan 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.

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.

To give feedback on this leaflet please email feedback@uhcw.nhs.uk

Document History

Department:	Dermatology
Contact:	26085
Updated:	July 2022
Review:	July 2024
Version:	2.1
Reference:	HIC/LFT/2288/18