

Groin Lymph Node Dissection

Patient information

What is a groin lymph node dissection?

A groin (inguinal) lymph node dissection involves the removal of all the lymph nodes and possible tumour-containing tissue from the groin region.

Lymph nodes and the lymphatic system

The body's lymphatic system is a network of lymph nodes and lymphatic vessels running throughout your body that help to filter fluid out of the tissues. The lymphatic system plays a key role in your body's immune response to infection and tumours.

Melanoma cells can sometimes travel through lymphatic vessels to the lymph nodes or via the blood stream to other areas of your body. Lymph nodes filter the fluid (called lymph) running through your lymphatic vessels, enabling the body's immune system to respond to threats like infection or tumours.

Lymph nodes are commonly found grouped together, particularly in the neck, armpit (axilla) and groin. Nearly all parts of the body drain lymph fluid to a specific lymph node or nodes.

In most people with melanoma, there is no spread to other parts of the body. However, in a small percentage of cases, usually after the original melanoma is removed or in rare cases when the primary melanoma has not been found, melanoma can be detected as a lump in the lymph nodes by the patient or at a regular medical follow up examination or X-ray examination.

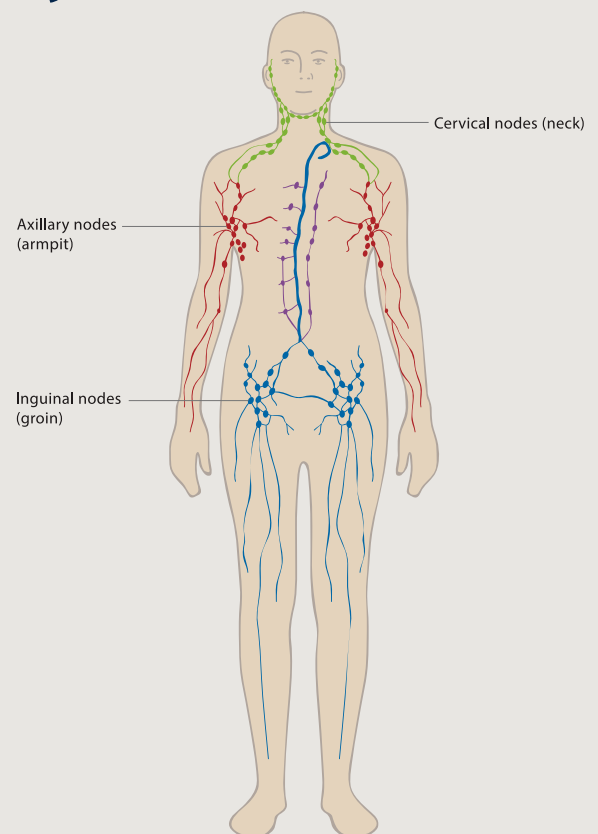


Diagram of the lymphatic system (reproduced with permission of Cancer Australia).

In this situation, the standard treatment has been to remove all the lymph nodes in that area as often there is more than one lymph node involved. This operation is called a lymphadenectomy or therapeutic lymph node dissection (TLND). After recovering from this surgery, drug therapy (either immune therapy or targeted therapy) is often given. In some instances, patients will be referred to a medical oncologist and be given drug therapy before the surgery. This is known as neoadjuvant systemic therapy.

Therapeutic lymph node dissection

A TLND is a major operation that aims to control the progression of the melanoma in the lymph node region. After this type of surgery there are sometimes long-term consequences that may limit function of the nearby limb or area of the surgery.

This brochure is about the operation involving the group of lymph nodes in the groin.

Groin dissection

Before the operation

You will need to attend the hospital a few hours before your operation, having fasted (i.e. no food or fluid) for 6 hours. A full stomach can cause regurgitation of the stomach contents when an anaesthetic is administered; an empty stomach is therefore very important.

Preparing for a general anaesthetic

Please let your anaesthetist know if you have had problems with anaesthesia in the past, including post-operative nausea and vomiting after an anaesthetic. Modern anaesthetic techniques and drugs can reduce this. If you are very anxious you should let the anaesthetist know.

Most medications should be continued up to and including the day of surgery, taken with a small sip of water. Two very important exceptions are diabetic tablets (as you will be fasting) and tablets that thin the blood, for example aspirin, ibuprofen, cartia, warfarin, clopidigrel, Xarelto (rivaroxaban), Eliquis (apixaban), and Prodaxa (dabigatran). Your surgeon and anaesthetist should be made aware that you take these medications and will instruct you on what to do leading up to the operation. A relatively new class of diabetic drugs that are very important to make your doctor aware of are the sodium–glucose cotransporter-2 (SGLT2) inhibitors such as Forxiga, Xigduo, Jardiance, Jardimet, Glyxambi and Steglatro.

Many complementary medicine treatments can affect blood clotting so please inform your surgeon if you are taking any of these.

You will also have special stockings to help prevent blood clots in the legs and usually an injection of a drug (heparin or clexane), into the abdominal skin to reduce the risk of blood clots causing deep vein thrombosis (DVT) or pulmonary embolism.

During the operation

Your surgeon will see you just before going into the operating theatre and will mark the site of the proposed operation. Any final questions can be asked at this time.

A groin dissection is performed under a general anaesthetic so you will not be awake during the procedure. Once you are asleep, local anaesthetic may be injected into the area of surgery to provide additional comfort after the operation.

The procedure involves making an incision or several incisions in the groin. The structures of the groin can be exposed this way, allowing a complete and relatively safe operation. There are several important structures that run through the groin (arteries, veins and nerves) and the operation is planned and performed to remove all the lymph nodes and associated tissue without causing damage to these. However, minor skin nerves must be removed as part of the operation. This results in a region of numbness in the upper thigh which is not troublesome but often permanent.

Sometimes it is necessary to remove lymph nodes from above the level of the groin. These lymph nodes are located in the pelvis. Removal of these lymph nodes requires a larger incision or separate incision extending further up the abdomen. The muscles of the abdominal wall are split to give access to the lymph nodes and then repaired prior to closure of the skin wound. The skin is closed with stitches or staples.

The procedure generally takes 1–3 hours. Any large wound produces fluid (like that in a blister) so a surgical drain is placed to collect this. The drain is a soft flexible silicone tube that is connected to a suction bottle. It will be checked frequently after the operation and changed as required by the nursing staff. The drain will generally be in place for 5–10 days, but sometimes up to six weeks after the operation.

After the operation a pathologist assesses the tissue removed from the groin. The detailed pathological examination of this tissue takes about seven working days. Information from this analysis is important regarding your ongoing care and may determine the need for drug therapy, radiotherapy and other treatments.



Drains in the groin area following surgery.

Immediately after the operation in hospital

After surgery you will be taken to a recovery ward that is specially equipped and staffed to monitor patients post-operatively. Pain relief and anti-nausea medication will be provided as necessary. It will be important for you to inform the recovery staff if you are in pain or feel sick so that more medication can be given.

The days after the operation

The benefits of being out of bed and moving around soon after an operation need to be balanced against the risk of causing bleeding and aggravating discomfort in the wound following a groin operation.

Groin dissection wounds sometimes have complications during healing. In most cases surgeons prefer their patients to remain on bed rest for a few days. After this you will be encouraged to slowly mobilise as comfort allows. The drain will be checked frequently, and the reservoir emptied or replaced as required.

Most patients, depending on their level of fitness and their home circumstances, spend 5–7 nights in hospital and then go home, often with the drain in place. The nursing staff will train you in its care and arrange follow-up prior to leaving hospital. Community nurses are often organised to assist in the management of the drain when you return home. At the time of discharge a prescription for analgesics and possibly antibiotics will be provided. Generally the stitches and/or staples in the wound will be removed after 10–20 days.

Tiredness is common for a few weeks after any major surgery, and you will need to take at least 3–6 weeks of leave from even the quietest of jobs. It is important to take life quietly and allow the area of surgery to heal. You may drive and resume normal activities when you feel confident of full control. For most people this takes several weeks, sometimes longer. It may be useful to check with your insurance company regarding their policy concerning “impairment to drivers”.

Possible side effects

Most people cope with the operation very well and have few problems. The most common problems relate to prolonged lymph flow via the drain, fluid collection in the groin, or minor wound infections. These problems are usually managed simply, without needing re-admission to hospital.

Your surgeon will have discussed the benefits and the risks of the procedure at your pre-operative consultation and this document is not intended to replace that discussion.

However, possible side effects are as follows:

Early side effects

Common:

- Numbness around the wound and upper thigh, minor wound infection, small haematoma (blood collection) or seroma (lymph fluid collection).
- With a more extensive procedure involving removal of the nodes in the pelvis, the bowel may become inactive for 2–3 days making it uncomfortable to eat solids. Fluids only may be recommended orally until the bowels begin to work normally again.

Uncommon:

- Excessive bleeding needing re-operation or major wound infection requiring re-operation.
- Deep vein thrombosis (clots in the veins in the legs) or pulmonary embolism (clots in the lungs).
- Damage to nerves supplying muscles or damage to blood vessels.
- Chest infection.

Late side effects

Common:

- Prominent scar at site of incision.
- Numbness around wound and inner thigh.
- Small seroma (fluid collection) in wound.
- Lymphoedema (swelling of the leg).

Uncommon:

- Large seroma (fluid collection) requiring repeated drainage or new drain insertion.
- Neuralgic (nerve-related pain) in the leg or groin.

Lymphoedema

Lymphoedema is limb swelling due to retained lymphatic fluid. It occurs in 20–30% of patients that have this operation. If it does happen, there is obvious fluid retention in the limb that may create problems using the limb. It isn't usually painful unless there is infection present, though it may be uncomfortable.

Lymphoedema mostly happens within 12 months of melanoma surgery but may occur years later. It may be brought on by trauma to the leg especially if there is a penetrating injury to the skin and infection occurs.

If lymphoedema does occur, active and ongoing therapy, sometimes with compression bandaging and garments and manual lymphatic drainage techniques, is required. This would require referral to a specialist lymphatic therapist. Often a lymphatic therapist is seen before surgery to make a baseline assessment so early lymphoedema changes can be detected after the operation.



Lymphoedema visible in the patient's right leg.

Further reading

Read our Lymphoedema Patient Information brochure on [melanoma.org.au](https://www.melanoma.org.au) to find out more.

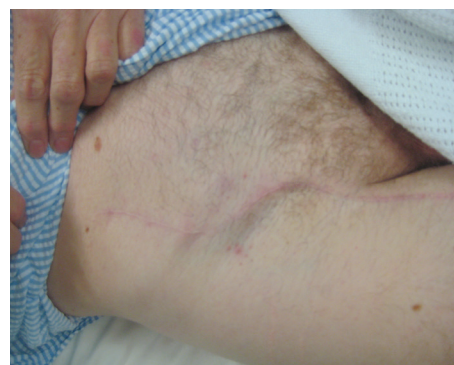
Recovery

Most people recover well from a groin dissection and return to their usual work and recreational activities after 4–6 weeks. The scar in the groin becomes less noticeable with time. Regular post-operative checks for progress on healing and possible melanoma recurrence will be recommended.

The surgery has taken place because of the excellent chance it will stop the melanoma progressing in the groin and reduce the risk of spread from the groin to elsewhere in the body. However, it may not stop the melanoma recurring elsewhere in the body and ongoing, regular follow up will be necessary.

You may have had radiology scans (usually whole-body PET/CT scan and brain MRI) prior to surgery, and you are likely to have these scans repeated at intervals for some years. Most patients with lymph node disease see a medical oncologist to discuss drug treatment. This might be before or after surgery. Clinical trials evaluating the best treatment strategies are ongoing and you might be invited to participate in a clinical trial.

It is important to discuss any issues raised by reading this information brochure with your surgeon.



The scar will fade over time.

Exercises Following Groin Dissection

Being physically active and exercising regularly is important for your physical health, your emotional wellbeing and your quality of life. Try to be active most days of the week – every day if you can manage. In the beginning, start slowly and listen to your body.

It is important to be mindful of your surgical site and move within the recommendations of your healthcare team. The aim is to reap the benefits of exercise without incurring injury.

It is natural for your skin and muscles to feel tight after surgery. Gradual introduction to specific exercises will help prevent stiffness and will improve your movement.

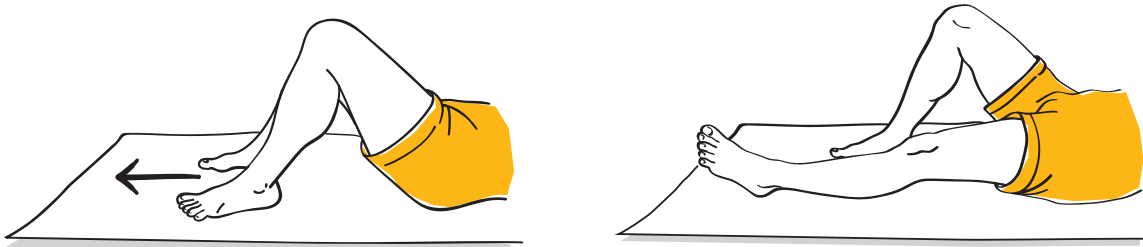
These exercises are designed so that you can perform them at home. The frequency and duration of the exercises are individualised for you by your physiotherapist, and this decision will be made based on the extent of your surgery, possible complications and your fitness level. All movements should be performed within your comfort levels. This is to ensure that you do not place unnecessary tension on your new surgical incision site and increase leakage from your wound or drain site. If you experience strong pain, cease the exercises and notify your health care professional at your next appointment.

Early exercises (when drains are still in)

Exercises can be performed for 10–20 repetitions, 3–4 times per day.

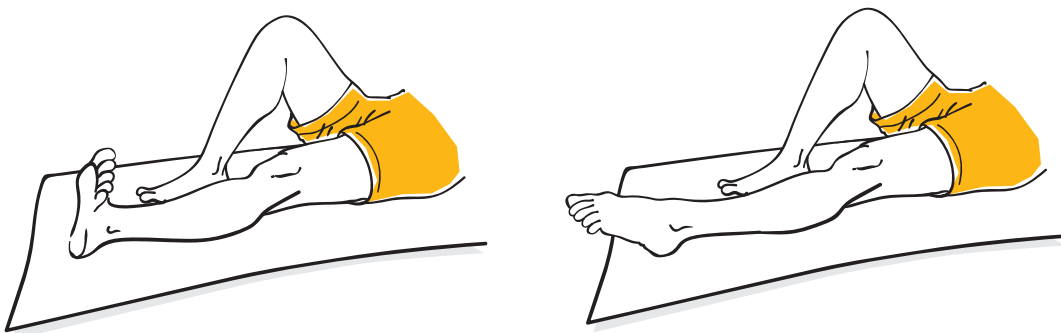
1. Knee bend/straighten

Start lying on your back with both knees bent, heels resting on the bed. Slide your foot along the bed to straighten your knee, then return to the starting position.



2. Ankle up/down

Keeping your leg rested on the bed, move your ankle by pulling the toes back towards you, and then pointing them down to the ground.



3. Hip rotation

Keeping your heels on the bed and knees bent, **gently** roll your affected hip out to the side, then return it to the starting position.



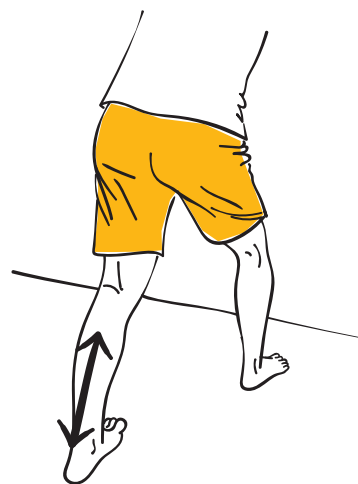
Advanced exercises (after drains have been removed)

The exercises should be slowly progressed to an advanced level once your drains have been removed. It is expected that you will regain normal hip movement and gait around 6 weeks after removal of drains. You may still feel stiff in your movement so these exercises may need to be continued.

Please note that these exercises are to be used as a guide only. Aim for 3 x 10 seconds of gentle stretch, 3 times per day.

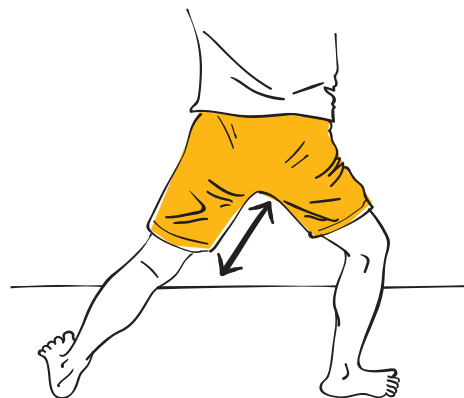
4. Calf lift

Stand facing the wall. Place your hands on the wall to steady yourself. Keeping your heel on the ground, slide the affected foot backwards until you can feel a stretch below the back of the knee and lower leg.



5. Stretch for inside part of thigh

Stand facing the wall. Place your hands on the wall to steady yourself. Standing with your legs apart, lunge towards the unaffected side until a gentle pull is felt on the inside of your affected thigh.

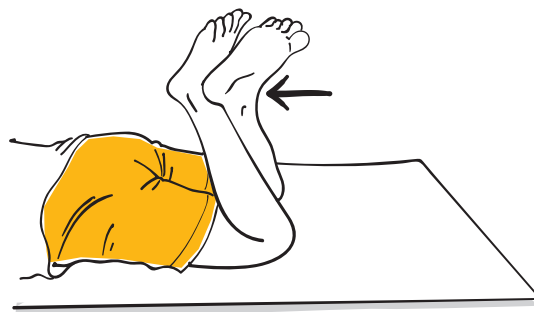


If you are unsure about your exercises, please ask to speak to a physiotherapist or your treating health professional.

6. Stretch for front of thigh

Only perform this stretch if you can lie on your stomach comfortably and your wounds are healed and fully closed.

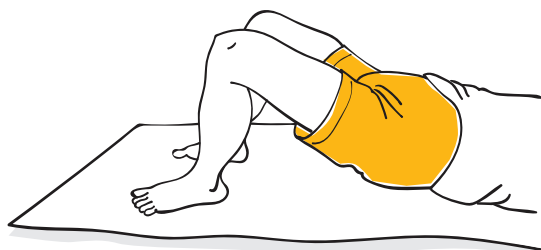
Bend both knees. Use the unaffected foot to gently increase the knee bend on the affected leg. A stretch should be felt at the front of the affected thigh. Aim for 3 x 10 seconds of gentle stretch, 3 times per day.



7. Bridging – Lifting bottom

Keeping knees bent and heel rested on the ground, gently lift up your bottom a few centimetres to strengthen your buttock. Return to starting position by lowering your bottom slowly. Aim for 5–10 repetitions, three times per day.

If you feel a cramp at the back of your leg, please discontinue the exercise until review by your physiotherapist.



Strengthening exercises may also be appropriate once full range has been achieved. Please speak to your physiotherapist or health professional for further progression of exercises.

Please note: The information in this brochure is of a general nature and should not replace the advice of healthcare professionals. All care has been taken to ensure the information presented here is accurate at the time of publishing (August 2025).