

# MELANOMA INSTITUTE AUSTRALIA AXILLARY LYMPH NODE CLEARANCE

## PATIENT INFORMATION



## WHAT IS AXILLARY LYMPH NODE CLEARANCE?

Axillary lymph node clearance involves the removal of all the lymph nodes and possible tumour-containing tissue from the armpit region.

## LYMPH NODES AND THE LYMPHATIC SYSTEM

Lymph is fluid that crosses from the blood vessels into the tissues as part of the normal (physiological) process of fluid circulation in the body. It travels in a network of lymphatic vessels that eventually return this fluid to the bloodstream. Lymph nodes or lymph glands function as filters along these lymphatic vessels. They trap bacteria and cancer cells and also help the body mount an immune response to infection or cancer. Lymph nodes are commonly found clustered together, particularly in the neck, armpit (axilla) and groin (as shown in Figure 1). Nearly all parts of the body have lymphatic drainage to a specific lymph node or several nodes. The pattern of lymph fluid drainage is different for each individual. The sentinel node(s) is the first lymph node(s) along the lymphatic vessels that drains the fluid from the skin site where a melanoma is located.

If a sentinel node has melanoma in it, or if lymph nodes are found to contain melanoma, irrespective of whether a person has had a previous sentinel node biopsy, the usual recommended treatment is a surgical **lymph node clearance** of the involved lymph node area.

A lymph node clearance 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 limb or area of the surgery.

This brochure is about the operation involving the group of lymph nodes in the axilla (or armpit).

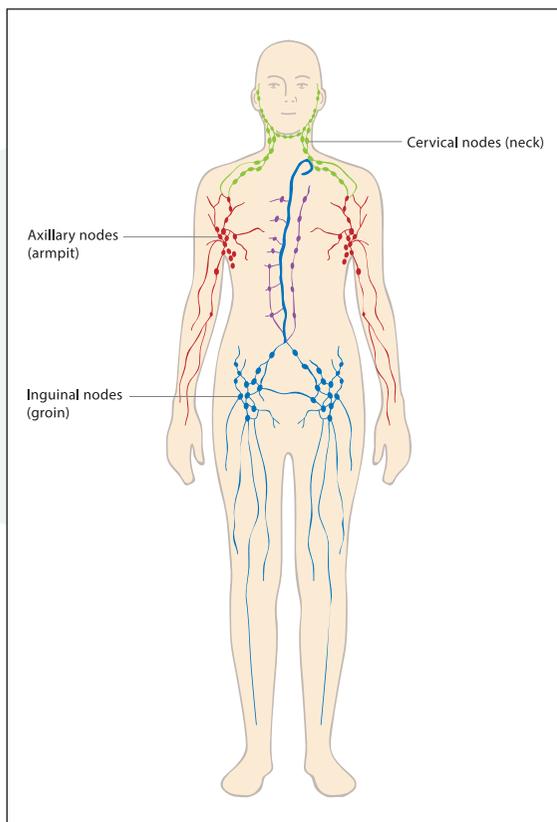


Figure 1: Diagram of the lymphatic system reproduced with permission of Cancer Australia.

## THE OPERATION

### 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. This is dangerous as inhalation of the stomach contents into the lungs can result.

### 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 anaesthetics. 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 tablets that thin the blood (for example, aspirin, ibuprofen, cartia, warfarin, clopidigrel) and diabetic tablets (you will be fasting). These should not be taken on the day of surgery.

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.

**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.

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

The procedure involves making an incision in the axillary skin. The blood vessels, muscles and nerves of the axilla can then be exposed, allowing a complete and relatively safe operation. There are several important structures that run through the axilla (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. A minor muscle (pectoralis minor) and small underarm nerves (intercostobrachial nerves) are removed as part of the operation. This results in numbness in the armpit and down the inside of the arm which is often permanent (but is usually not of particular concern to the patient).

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 and will be checked frequently after the operation and changed as required by the nursing staff (see Figure 2). This will generally be in place for several days up to several weeks after the operation. The wound is then closed using stitches and/or staples and a dressing is applied. Generally the procedure takes 60 to 90 minutes.

After the operation a pathologist assesses the tissue removed from the axilla. 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 radiotherapy and other treatments.



*Figure 2: Typical incision just after operation with a draining reservoir in place.*

## AFTER THE OPERATION

### IMMEDIATELY AFTER THE OPERATION

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

### THE DAYS AFTER THE OPERATION

There are benefits of being out of bed and moving around soon after an operation. These include improved breathing and a reduced risk of blood clots (deep vein thrombosis (DVT) & pulmonary embolus). For this reason the nursing staff will encourage you to mobilise as early as comfort allows. A sling may be provided to rest the arm and act as a reminder to limit shoulder movements. You can eat and drink as soon as you feel like it after the operation. The drain will be checked frequently and the reservoir emptied/replaced as required.

Most patients, depending on their level of fitness and home circumstances, spend one or two nights in hospital and then go home with the drain in place. The nursing staff will train you in its care and arrange follow-up prior to leaving hospital. At the time of discharge a prescription for analgesia and possibly antibiotics will be provided. If there are stitches and/or staples in the wound, these will need to be removed after 10–14 days.

Tiredness is common for a few days after surgery and you will need to take at least a week or two 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 arm activities when you feel confident of full control. For most people this takes a couple of 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 difficulties. The most common problems relate to prolonged lymph drainage, fluid collection in the axilla, 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 inner upper arm, minor wound infection, small haematoma (blood collection) or seroma (lymph fluid collection).
- Shoulder stiffness, usually improving over 3–6 weeks. This sometimes requires physiotherapy.

### EARLY SIDE EFFECTS (UNCOMMON)

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

### LATE SIDE EFFECTS (COMMON)

- Scar at site of incision.
- Numbness around wound and inner upper arm.
- Seroma (fluid collection) in wound.

### LATE SIDE EFFECTS (UNCOMMON)

- Large seroma (fluid collection) requiring repeated drainage or new drain insertion.
- Lymphoedema (swelling of the arm).
- Neuralgic (nerve-related) pain in the arm or axilla.



*Figure 3: Typical scar after two years.*

## LYMPHOEDEMA

Lymphoedema is limb swelling due to retained lymphatic fluid. It occurs in about 10% 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 may be uncomfortable. It isn't usually painful unless there is infection present. Lymphoedema mostly happens within 12 months of melanoma surgery but may occur years later. It may be precipitated by trauma to the arm especially if there is 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.

There is a separate brochure available for those patients who develop lymphoedema.

## RECOVERY

Most people recover well from axillary dissection and are able to return to their usual work and recreational activities after a short period of time. The scar under the arm becomes less noticeable with time.

Regular checks for progress on healing and possible melanoma recurrence will be performed.

The surgery has taken place because of the excellent chance it will stop the melanoma progressing in the axilla and reduce the risk of spread from the axilla to elsewhere in the body. However, melanoma may still spread via the bloodstream and recur elsewhere in the body so ongoing, regular, follow up will be necessary.

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