Providence Health Care
How you want to be treated.

Immediate lymphatic reconstruction (ILR) after axillary lymph node dissection (ALND): Patient Information

Your breast surgical oncologist has recommended an axillary lymph node dissection (ALND) as part of your breast cancer surgery.

ALND involves removing most of the lymph nodes under your armpit (axilla) and can cause damage to nearby lymphatic vessels. During your breast surgery, your plastic surgeon will do a procedure called immediate lymphatic reconstruction (ILR) to repair the damaged lymphatic vessels. This handout will explain ILR and what to expect after surgery.

For more information about your breast surgery and ALND, please refer to your breast surgery booklet or speak with your breast surgical oncologist.

What is immediate lymphatic reconstruction (ILR)?

ILR is a procedure where the plastic surgeon reconnects the lymphatic vessels from your arm to a small vein in your armpit (axilla) under a microscope. The lymphatic vessels are small channels that are usually connected to lymph nodes in the armpit (axilla) and drain fluid from the arm. When these lymph nodes are removed during ALND, the nearby lymphatic vessels can be damaged. The goal of ILR is to repair damaged lymphatic vessels and decrease the risk of lymphedema, or swelling, that happens when fluid cannot drain from the arm. ILR is a relatively new procedure and does not guarantee that you will not have lymphedema.

What happens during ILR?

First, your plastic surgeon will inject blue (patent blue) and green (indocyanine green) dye to find the damaged lymphatic vessels. Both dyes are injected into the upper inner surface of your arm. The green dye is also injected between your fingers. After your plastic surgeon can see the damaged lymphatic vessels, they will use a microscope to connect the lymphatic vessels to a small vein in the armpit.

Your breast surgery will be done under general anesthesia, meaning you will be asleep during the surgery. You will have a tube to help you breathe while you are asleep. You will be under the care of an anesthesiologist who will monitor your pain, breathing, and keep you comfortable during the surgery.

How much time will ILR add to my surgery?

Every patient is different and treated individually. The added time to your surgery can range from 45 minutes to 3 hours, averaging 2 hours. Other factors such as scarring can affect how long the surgery will be.

Does ILR increase the chance of the cancer coming back?

Removing the lymph nodes during surgery, chemotherapy, and radiation are all important parts of your cancer treatment. When there are cancer cells in your lymph nodes, these treatments help to decrease the risk of cancer coming back. Reconnecting lymphatic vessels from your arm to a small vein during ILR does not increase the risk of the cancer coming back or spreading.

Will I have a drain after surgery? Who will do the follow-up of the drain?

Yes, you will have a drain (small plastic tube) in place after the surgery. Your breast surgical oncologist will decide when the drain can come out.

For more information on caring for your drain, please refer to the breast surgery booklet. If you have any questions, please reach out to the Nurse Navigator at Providence Breast Centre at **nursenavigator@providencehealth.bc.ca** or **604-877-8511**.

What are the restrictions after the surgery?

Do not lift your arm above shoulder level for at least two weeks. Your plastic surgeon will give recommendations for how long to follow this. This prevents tearing the new connection between your lymphatic vessels and the small vein.

You will wear a compression stocking (sleeve) for two months after you complete radiation therapy. Your plastic surgeon will give you a prescription for the compression stocking and instructions for where to get one.

What are the risks of ILR?

ILR is a new procedure and does not guarantee that you won't have lymphedema, however, it has been shown to decrease the risk of lymphedema after ALND.

After your procedure, the skin between your fingers and on your inner arm may be discoloured from the blue or green dye used to find the lymphatic vessels. The colour usually fades over a few days. In some cases, the blue dye stays on your body at the injection site on your inner arm. Rarely, patients can have an allergic reaction to the blue or green dyes . During the surgery, you will be monitored by an anesthesiologist who will give you allergy medication if you need it.

Follow-up appointments

Your follow up appointment with the breast surgeon is booked approximately two weeks after your surgery. You will have follow appointments with the plastic surgeon at three months, six months, twelve months, three years, five and ten years after the surgery. During these appointments, they will do arm measurements and tests to see if you have developed lymphedema. In addition, you will be asked to fill out a short questionnaire to assess your quality of life.

How is lymphedema measured?

Your plastic surgeon will take arm measurements before and after surgery. Lymphedema is measured in several ways:

- Using an infrared beam (perometer) to measure the outline of your arm.
- Using an electrical charge (bioimpedance) to send small electrical signals through your arm. Your plastic surgeon will measure the resistance to the flow of electric current and use this to measure the amount of swelling.
- Using a green dye (indocyanine green) and specialized camera to see the lymphatic vessels and how well your lymphatic system is working.

Questions?

If you have questions or concerns about ILR, please contact the Nurse Navigator at the Providence Breast Centre at **nursenavigator@providencehealth.bc.ca** or **604-877-8511**.

Patient Approved
This material has been reviewed and approved by patients, families and staff