

Princess Margaret Cancer Centre

# Neoadjuvant Breast Cancer Program

**For women with high risk or locally advanced breast cancer**

Read this pamphlet to learn:

- Types of neoadjuvant treatments
- Is neoadjuvant treatment right for me
- Steps involved in neoadjuvant treatments
- What to expect when having neoadjuvant treatments



## What is the Neoadjuvant Breast Cancer Program?

The Neoadjuvant Breast Cancer Program is a treatment program for patients with high risk or locally advanced breast cancer.

Neoadjuvant treatment includes:

- chemotherapy
- radiotherapy (radiation therapy)
- hormone therapy

**Neoadjuvant** means the first treatment you have before surgery.

## What are the types of neoadjuvant treatments?

### Systemic treatment

- Given to shrink the size of the tumour and lower the risk of cancer returning
- Chemotherapy, targeted and hormone therapy are types of systemic treatment

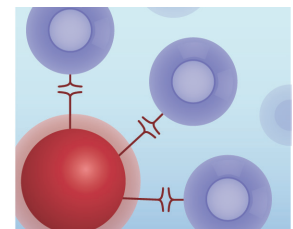
### Chemotherapy

- Cancer fighting drugs often given by intravenous infusion (needle) to kill cancer cells
- The type of chemotherapy drugs you receive depend on the type of tumour you have



### Hormone therapy

- Also called “anti-hormone” or “endocrine” therapy
- Drugs that help stop cancer cells from growing by blocking hormones that some cancer cells depend on
- Used for tumours that are estrogen or progesterone receptor positive either before or after surgery



This chart explains the different types of hormone therapy to block or stop estrogen in the body.

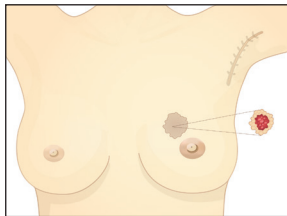
Name of Hormone Therapy	Example	What it does	Who can have it
Selected Estrogen Receptor Modulators (pill)	Tamoxifen	Blocks estrogen effects directly on tumour cells	Women before, during and after menopause
GnRH/LHRH Analogue (injection)	Leuprolide, Goserelin	Stops the ovaries from making estrogen	Women before menopause
Ovarian Ablation (surgery or radiation)	Goserelin, remove the ovaries using surgery or radiation	Lowers the production of estrogen from the ovaries	Women before menopause
Aromatase Inhibitors (pill)	Anastrozole, Letrozole, Exemestane	Lowers the level of estrogen in the body	Women after menopause

### Targeted therapy

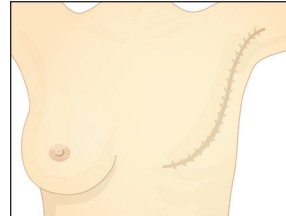
- Attacks only certain cells that are part of some cancers. Examples: Trastuzumab (Herceptin)
- Unlike chemotherapy drugs, targeted therapy can destroy cancer cells without harming surrounding healthy cells
- Has fewer side effects

## Surgery

- Surgeon removes the tumour (lumpectomy) or the entire breast (mastectomy)
- Surgeon may also remove some extra tissue and some lymph nodes in the armpit



Lumpectomy



Mastectomy

## Radiation

- High energy x-rays used to kill cancer cells
- In some cases radiation may be given before surgery to shrink the tumour, or after surgery to reduce the risk of the cancer returning



## Is neoadjuvant treatment right for me?

Your health care team may offer you neoadjuvant treatment if you:

- Have a breast cancer that has not spread to other organs, **and** your type of breast cancer has 1 or more of these features:
  - has a high chance of returning
  - may have spread to lymph nodes in the armpit
  - does not have estrogen, progesterone and HER2 receptor expression (also called “triple negative”)
  - has a tumour that is HER2 positive
  - surgery is not possible as your first treatment
  - if removing the whole breast (mastectomy) is needed but you want only part of the breast removed (breast conserving surgery)
  - inflammatory type breast cancer

Your health care team will tell you more about a **triple negative diagnosis** and tumours that are **HER2 positive**.

## **Who is part of my health care team?**

Your health care team will include surgeons, medical and radiation oncologists, oncology nurses, nurse practitioners, nurse coordinators, pharmacists, social workers and other allied health team members.

Each of the team members will help to plan, coordinate and deliver your care.

## **What are the benefits of having neoadjuvant treatment?**

Neoadjuvant treatment can:

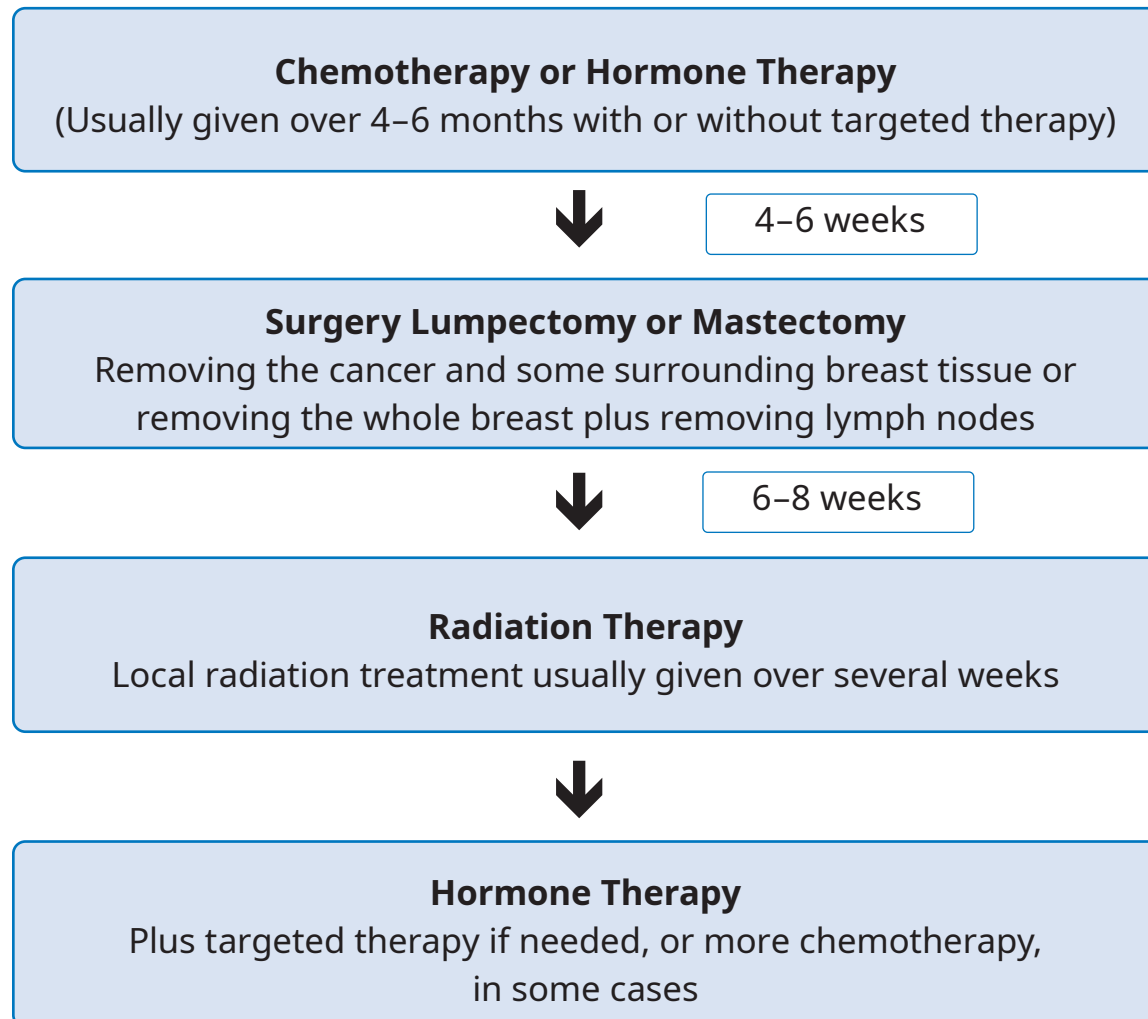
- ✓ Shrink your tumour so you may be able to have breast conservation instead of a mastectomy, or remove fewer lymph nodes from the armpit.
- ✓ Remove cancer cells which may have spread to help reduce the risk of your cancer returning.
- ✓ Let your health care team monitor how you are responding to the treatment and stop any treatment that is not working for you.

## **What are the steps involved in neoadjuvant treatment?**

Often people with high risk or locally advanced breast cancer need more than one treatment. Usually treatment starts with chemotherapy or hormone therapy. Next is surgery, radiation and more systemic treatment, depending on how you respond to neoadjuvant treatment.

You may need radiation before surgery to shrink the tumour even more.

## Steps in neoadjuvant treatment



## What tests do I need?

You will need to have tests before neoadjuvant treatment can begin. The tests help your health care team plan the best treatment for your breast cancer.

The tests include:

- 1. Breast imaging:** Mammogram, ultrasound and breast MRI
- 2. Biopsy of the tumour:** To identify the type of tumor and receptor status. The results of the biopsy will tell your team what type of systemic treatment you need. You might also have a biopsy of the lymph nodes.
- 3. Body scans:**
  - CT scan of the chest, abdomen and pelvis
  - Bone scan
  - Heart scan (if your health care team needs to make sure you have no other health issues)

## How can I cope with any stress?

Coping with breast cancer can be stressful. There are many changes to manage in your life.

Ask any member of your health care team about supportive services and resources that can help you during your treatment and follow-up care.

You can talk to your team if you have questions or concerns or to get referrals for supportive services.

Your health care team is here to help you along the way.

## Visit the Princess Margaret Patient and Family Library

Main floor, Room M-508

Phone: 416 946 4501 ext. 5383

Email: [patienteducation@uhn.ca](mailto:patienteducation@uhn.ca)

- Trained staff and volunteers can help with your questions and help you find information and resources.

The development of patient education resources is supported by the Princess Margaret Cancer Foundation.



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