

# Anti-cancer therapy before breast cancer surgery (neoadjuvant therapy)

Anti-cancer therapy given before breast cancer surgery is called neoadjuvant (nee-oh-ad-joo-vant) therapy. It is used to shrink the lump (tumour) in the breast so it is easier to remove.

## Who needs neoadjuvant therapy?

Surgery is the main treatment for most breast cancers. Removing a small breast tumour with surgery is usually straightforward but removing a large tumour can be difficult. Neoadjuvant therapy shrinks the tumour, making it easier to remove.

You may be offered neoadjuvant therapy if:

- you have a large tumour that cannot be removed without shrinking it first
- your tumour could be removed without needing to remove your whole breast (mastectomy) if it was smaller.

In addition, most people with inflammatory breast cancer, and many with triple negative or HER-2 positive cancers, have neoadjuvant therapy.

### Important

Research shows that people who have anti-cancer therapy before their surgery do just as well in the long term as people who have surgery first.

Your doctor will talk to you about which type of neoadjuvant treatment is right for you. Chemotherapy can be used for most types of breast cancer. Hormone therapy is only used for cancers that are hormone receptor positive. Immunotherapy can be used to treat certain types of breast cancer.

## What are the advantages?

Neoadjuvant therapy can:

- shrink the tumour to make it easier to remove, and change the amount of surgical treatment you need
- give your doctor a chance to see if the therapy is working and change the treatment if needed
- provide information about your cancer that can help decide the best treatment for you after surgery
- allow more time for you and your doctor to plan other parts of your treatment.

## Are there any disadvantages?

There are no major disadvantages to this type of treatment, but it can affect how your doctors manage your cancer.

Neoadjuvant therapy can cause cancers to shrink, or even disappear completely. Because of this, you will usually have a clip or marker inserted into the tumour when you start neoadjuvant therapy. This helps the surgeon locate the original site of the cancer when you have surgery.

Neoadjuvant therapy can also make it harder to tell if the cancer has spread to lymph nodes in the armpit. You may have an ultrasound and biopsy of these lymph nodes before starting therapy to see if the cancer has spread there.

Knowing if the cancer has spread to the lymph nodes helps your doctors to decide:

- the risk of the cancer coming back
- whether any further treatment is needed.

If your cancer disappears completely with neoadjuvant therapy, don't worry. This shows that the anti-cancer therapy has been working. Your doctor will plan any further treatment based on the scans and other tests you had before you started treatment.

## What does neoadjuvant therapy involve?

There are several types of anti-cancer drugs that may be used for neoadjuvant therapy:

- Neoadjuvant chemotherapy usually involves having a combination of chemotherapy drugs every 1, 2 or 3 weeks for up to 6 months in total.
- Neoadjuvant hormone therapy involves having a hormone drug every day as a tablet. Your doctor will talk to you about the length of treatment.
- Most people with HER-2 positive cancer also have additional anti-HER-2 treatment as part of their neoadjuvant therapy.
- Neoadjuvant immunotherapy may also be used for some types of breast cancer.

Some people have all the therapy before surgery. Others have some therapy before surgery and some after surgery.

## How will I know if the treatment is working?

During neoadjuvant therapy, you will have regular check-ups to see if the treatment is working.

Your doctor will examine the tumour and measure it to see if it is shrinking. You may have some tests before, during or after neoadjuvant therapy to help with this. These can include ultrasounds, mammograms, magnetic resonance imaging (MRI), computed tomography (CT) scans, positron emission tomography (PET) scans, or combined PET/CT scans.

If the tumour is not shrinking, your doctor may talk to you about other treatment options. These can include:

- changing your anti-cancer therapy
- stopping the anti-cancer therapy and having surgery earlier
- having radiation therapy.

## Will I have any side effects?

Anti-cancer therapy given before surgery can cause the same side effects as anti-cancer therapy given after surgery.

Talk to your doctor, nurse or pharmacist about what to expect. You can also read the [eviQ patient information sheets on common side effects of cancer treatments](#).

## Is neoadjuvant therapy right for me?

Everyone's cancer is different and your doctor will discuss your treatment options with you.

Ask your doctor to explain why they are recommending neoadjuvant anti-cancer therapy for you.

## Is it safe to delay my surgery?

It is common to feel anxious about delaying your surgery to have neoadjuvant anti-cancer therapy. However, research shows that people who have anti-cancer therapy before their surgery do just as well in the long term as people who have surgery first.

If you feel worried or anxious about delaying your surgery, talk to your doctor or nurse about your concerns.

## Will I need radiation therapy?

Radiation therapy following surgery may still be recommended to people who have neoadjuvant therapy.

For more information visit [www.myneoguide.com](http://www.myneoguide.com)



For information for patient and carers please scan the QR code.

## Glossary

**Anti-HER-2 treatment:** a type of drug used to treat HER-2 positive breast cancer.

**Chemotherapy:** treatment with drugs that kill or damage the cancer cells or stop them from dividing and growing.

**HER-2 positive breast cancer:** a type of breast cancer that tests positive for the HER-2 protein. HER-2 stands for human epidermal growth factor receptor 2.

**Hormone positive breast cancer:** breast cancer that has receptors for one or both of the female hormones (oestrogen and progesterone).

**Hormone therapy:** drugs used to treat hormone positive breast cancers (e.g tamoxifen, anastrozole, letrozole or exemestane).

**Immunotherapy:** drugs that work with your immune system to detect and destroy cancer cells.

**Inflammatory breast cancer:** a rare type of breast cancer that affects lymphatic vessels in the skin of the breast which is associated with redness and inflammation of the skin.

**Neoadjuvant:** any cancer treatment given before the main treatment.

**Radiation therapy:** treatment that involves the use of x-rays or other types of radiation to kill or damage cancer cells.

**Surgery:** treatment that involves cutting into the body to remove tissues affected by cancer or other diseases.

**Triple negative breast cancer:** a type of breast cancer that tests negative for HER-2, oestrogen and progesterone receptors.

**Tumour:** a lump or growth formed by cells from the body. Many cancers form tumours.