



Chemotherapy or hormone 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 HER2 positive cancers, have neoadjuvant therapy.

! Important:

Research shows that people who have chemotherapy or hormone 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, but hormone therapy is only used for cancers that are hormone receptor positive.

What are the advantages?

Neoadjuvant therapy can:

- make the tumour smaller, which makes it easier for your surgeon to remove
- give your doctor a chance to see if the therapy is working and change the treatment if needed
- change the amount of surgical treatment required
- 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 having this type of treatment. However, 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. The fact that the tumour has shrunk so much is a good sign. It shows that the chemotherapy or hormone therapy has been working. Your doctor will plan any further treatment based on the scans and other tests you had before you started treatment.

Chemotherapy or hormone therapy before breast cancer surgery (neoadjuvant therapy)

What does neoadjuvant therapy involve?

Neoadjuvant chemotherapy usually involves having a combination of chemotherapy drugs:

- every 2 or 3 weeks
- for 4, 6 or 8 cycles (repeats)
- 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.

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

Most people with HER2-positive cancer also have additional anti-HER2 treatment (e.g. trastuzumab (Herceptin) or pertuzumab (Perjeta)) as part of their neoadjuvant therapy.

How will I know if the treatment is working?

During the 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 and magnetic resonance imaging (MRI) scans.

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

- changing your chemotherapy drugs
- stopping the chemotherapy and having surgery earlier
- having radiotherapy.

Does neoadjuvant therapy cause any side effects?

Chemotherapy or hormone therapy given before surgery can cause the same side effects as chemotherapy or hormone therapy given after surgery.

Talk to your doctor or nurse about what to expect. You can also read the eviQ patient information sheets on common side effects of cancer treatments.

How do I know neoadjuvant therapy is 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 chemotherapy or hormone therapy for you.

Is it safe to delay my surgery?

It is common to feel anxious about delaying your surgery to have neoadjuvant chemotherapy or hormone therapy. However, research shows that people who have chemotherapy or hormone 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 radiotherapy?

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

Glossary

Neoadjuvant = any cancer treatment given before the main treatment.

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

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

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

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

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

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.

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

HER2-positive breast cancer = a type of breast cancer that tests positive for the HER2 protein. HER2 stands for human epidermal growth factor receptor 2.

Anti-HER2 treatment = a type of drug used to treat HER2-positive breast cancer.

Radiotherapy = treatment that involves the use of x-rays or other types of radiation to kill or damage cancer cells.