

# Neoadjuvant immunotherapy for melanoma

## Patient information

### What is neoadjuvant immunotherapy?

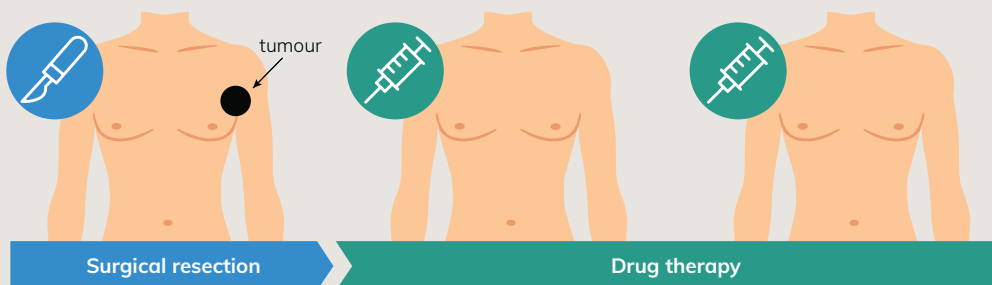
'Neoadjuvant therapy' refers to any treatment given **before the main treatment** (which is usually surgery) for a cancer. The goals of neoadjuvant therapy can include shrinking the cancer, which can potentially make surgery easier, and to reduce the risk of cancer recurrence.

Neoadjuvant therapy differs from adjuvant therapy, which is given after surgery.

Immunotherapy is a type of cancer treatment that works by helping the body's own immune system recognise and attack cancer cells more effectively.

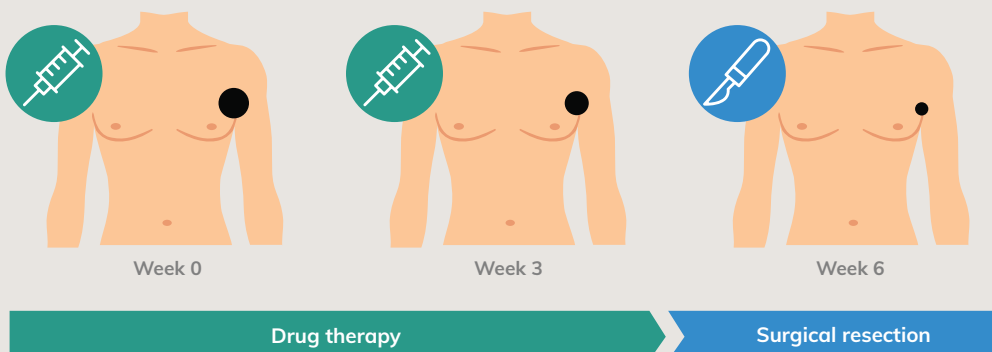
When immunotherapy is given before surgery, it is called **neoadjuvant immunotherapy**.

#### A. Adjuvant therapy



**Image A** depicts adjuvant therapy, where a melanoma tumour is surgically removed first, followed by drug therapy.

#### B. Neoadjuvant therapy



**Image B** depicts neoadjuvant therapy, where patients are treated with drug therapy before surgery.

Adjuvant versus neoadjuvant therapy in melanoma.

# Why is neoadjuvant immunotherapy recommended?

For some people with melanoma, neoadjuvant immunotherapy offers important advantages over starting with surgery alone. These include:

- **lowering the risk of melanoma coming back.** Treating the cancer before surgery can help destroy cancer cells that may have started to spread, reducing the risk of recurrence.
- **potentially less extensive surgery.** By shrinking the tumour, neoadjuvant therapy may make surgery easier and allow the surgeon to remove less tissue while still achieving the best outcome.
- **receiving valuable personalised feedback on treatment response.** Examining the tumour after neoadjuvant immunotherapy helps doctors understand how well the treatment is working for you. This can help guide decisions about treatment after surgery (adjuvant therapy) and also help with predicting the risk of your melanoma recurring.

## Could delaying surgery to have neoadjuvant immunotherapy make the cancer worse?

It's normal to worry that waiting for surgery could allow the melanoma to grow or spread. However, deferring surgery for 6–12 weeks while receiving immunotherapy does **not** put patients at greater risk.

In fact, starting with neoadjuvant immunotherapy can lead to a better overall outcome by shrinking the tumour, making surgery more effective, and boosting the body's antitumour immune response and reducing the risk of recurrence.

Your treatment team will carefully monitor your progress throughout treatment. If at any point the melanoma does not respond as expected, your doctors will adjust your care plan to ensure you receive the best possible treatment at the right time.



# The approach to neoadjuvant immunotherapy

## Who is in your treatment team?

Neoadjuvant immunotherapy for melanoma involves a multidisciplinary team (MDT) of specialists working together to provide the best possible care. This approach ensures that every aspect of your treatment is carefully planned and coordinated. This team may include:

- **a medical oncologist** – a specialist in cancer treatments like immunotherapy, who will prescribe any drug treatments you may require
- **a surgical oncologist** – a surgeon who removes melanoma while preserving as much healthy tissue as possible
- **a radiologist** – a doctor who uses imaging (such as CT, MRI or PET scans) to assess your response to treatment
- **a pathologist** – an expert who examines tissue samples to understand how well the therapy is working
- **nurses** – to care for your needs during and after treatment
- **allied health professionals** – such as a psychologist, counsellor, social worker, physiotherapist or occupational therapist, who will provide support throughout your treatment.



## The importance of timing and planning

Neoadjuvant immunotherapy follows a carefully structured schedule to ensure the best outcomes. Your treatment plan is designed to:

- maximise the effectiveness of immunotherapy before surgery
- allow time for your tumour to respond while closely monitoring progress
- ensure surgery happens at the right time for the best possible results.

Your medical team will regularly review your progress and adjust the plan if necessary, keeping you informed every step of the way.

# What can I expect before, during and after neoadjuvant immunotherapy?

## Before: Preparing for immunotherapy treatment

Before starting neoadjuvant immunotherapy, you will meet a surgeon and a medical oncologist who will explain your specific treatment plan, discuss the surgery and drugs you'll receive, and answer any questions.

You may also have:

- scans or imaging tests – to assess the tumour
- blood tests – to check your overall health
- a biopsy (if needed) – to confirm details about your melanoma.

## During: Immunotherapy treatment phase

Neoadjuvant immunotherapy is typically delivered through an intravenous (IV) infusion in a hospital or clinic every 2 to 4 weeks for up to 4 cycles.

Infusions usually only take a few hours, and most people can go home on the same day.

During this time, your doctors will carefully assess how well the immunotherapy is working using similar techniques employed during treatment preparation:

- scans or imaging tests – to check for tumour shrinkage
- blood tests – to measure immune system activity
- physical examinations – to assess tumour size and any side effects.



A patient receiving an infusion.

## After immunotherapy: What happens next?

After completing neoadjuvant immunotherapy and before surgery, your treatment team will assess your response to treatment with scans. In some situations, the surgical plan may change based on immunotherapy response or side effects. These decisions will be made by your medical oncologist and surgeon in discussion with you. However, the usual next step is surgery to remove the melanoma.

## Common side effects of immunotherapy

Immunotherapy works by activating your immune system to attack cancer cells, but in some cases, it can also affect healthy cells in the body. This can lead to side effects, which vary depending on the type of immunotherapy used. Your treatment team will discuss what to expect from your specific treatment before you begin.

The most common side effects of immunotherapy include:

- skin reactions – such as a rash or itching
- fatigue.

Some side effects may appear during treatment and improve once therapy ends. Others, particularly those affecting hormone production (e.g., the thyroid), can be long term or permanent.

If you experience any side effects, contact your healthcare team so that they can help you manage symptoms and reduce discomfort.

If you need you see a doctor, be sure to inform them that you are receiving immunotherapy and, if possible, provide the name of the drug/s you're taking and the name of your medical oncologist.

## How does neoadjuvant immunotherapy affect my prognosis?

For many people, neoadjuvant immunotherapy significantly improves outcomes, reducing the risk of melanoma returning and increasing long-term survival. However, it does not work for everyone. Individual responses vary based on factors such as the type and stage of melanoma and how the immune system reacts to treatment.

While neoadjuvant immunotherapy can lower the likelihood of recurrence, no treatment can guarantee that melanoma will never return. It is natural to feel concerned about this, but your treatment team will work closely with you to schedule regular check-ups and scans, ensuring that any changes are detected and managed as early as possible.

If you have questions about your personal prognosis, your medical oncologist and treatment team can provide guidance based on your specific case.



## Clinical trials

Research is vital for improving treatment approaches and outcomes for people with melanoma. Clinical trials are a crucial part of this research and are used to determine whether new treatments are better than currently available treatments.

If you are interested in learning more about clinical trials, you can speak with your medical team to see if any studies may be suitable for you. You can also read more about clinical trials on the Melanoma Institute Australia website at [melanoma.org.au/for-patients/clinical-trials](https://melanoma.org.au/for-patients/clinical-trials) or at [australiancancertrials.gov.au](https://australiancancertrials.gov.au).



## Where can I find more information and support?

To access further information and support, including specialist melanoma nurses and supportive care, you can visit Melanoma Institute Australia at [melanoma.org.au](https://melanoma.org.au).

To access telehealth nurse services and melanoma support groups nationwide, you can visit Melanoma Patients Australia at [melanomapatients.org.au](https://melanomapatients.org.au).

**Please note: The information in this brochure is of a general nature and should not replace the advice of healthcare professionals. All care has been taken to ensure the information presented here is accurate at the time of publishing (June 2025).**

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