



**HEAD & NECK CANCER**  
AUSTRALIA  
ENGAGE • EDUCATE • EMPOWER

# IMMUNOTHERAPY



## WHAT IS IMMUNOTHERAPY?

Immunotherapy is a type of treatment that works by stimulating the immune system to fight against cancer.

## HOW DOES IT WORK?

Our immune system is geared to attack anything that looks foreign or different to our normal cells. Cancer cells have abnormal molecules on their surface that act like “antennas” and can alert our immune system to their presence.

One of the ways cancer cells avoid attack by the immune system is by putting extra signal molecules or “white flags” on their surface to fool the immune cells into thinking they are harmless and to leave them alone.

Cancer cells can also avoid attack from the immune system by “camouflage” or hiding from it. They do this by limiting the abnormal antennas on their surface. In this way they escape recognition by the immune system.

The most important immunotherapy treatments that we have today are called **immune checkpoint inhibitors**. These work by blocking the cancer cells from putting up the “white flags”. This allows the immune system to recognise these abnormal cancer cells and attack them.

Another group of immunotherapy treatments, called **therapeutic anti-cancer vaccines**, work by alerting or “priming” the immune system to the abnormal cancer cells to help recognise the abnormal cancer cell and attack it.

One of the newest immunotherapy treatments works by modifying the patient’s own immune cells. This is known as **adoptive T-cell therapy**. In this treatment, the patient’s immune cells are collected and “taught” in a laboratory to be able to recognise and attack cancer cells. The modified immune cells are then re-infused back into the patient.

## **WHAT IMMUNOTHERAPY TREATMENTS ARE AVAILABLE FOR PATIENTS WITH HEAD AND NECK CANCER IN AUSTRALIA TODAY?**

There are two main aims in cancer treatment: cure or palliation. Curative treatments aim to get rid of the cancer completely. This generally applies to patients where the cancer has not spread beyond the head and neck region of the body (non-metastatic).

Palliative treatments aim to alleviate symptoms caused by incurable cancer, and to extend patient's lives as much as possible.

With time, cancers may evolve to become resistant to the treatment that is being given, particularly when the treatment is palliative; this is somewhat similar to how bacteria becomes resistant to antibiotics given time. When this happens, your oncologist might change the treatment to one that the cancer has not previously "seen" or been treated with.

In Australia, immune checkpoint inhibitors called "nivolumab" and "pembrolizumab" are currently funded by the Pharmaceutical Benefits Scheme (PBS) for head and neck cancer patients who have incurable disease. Unfortunately, not everyone's cancer will respond to immunotherapy. So there are several clinical trials happening right now to investigate combinations of multiple immunotherapy agents and other new anti-cancer therapies.

## **WHAT IMMUNOTHERAPY TREATMENTS ARE AVAILABLE FOR PATIENTS WITH SKIN SQUAMOUS CELL CARCINOMAS?**

Skin squamous cell carcinomas or "skin SCCs" often develop in the head and neck region.

While surgery is the main treatment for patients disease that is easily removed, immunotherapy, with immune checkpoint inhibitors is very effective for patients with skin SCCs that have recurred or spread and can no longer be removed by surgery.

In some cases, immune checkpoint inhibitors can also be used to avoid doing large surgeries that might have a big impact on the patient's function such as their eyesight or cosmesis. The discussion abouts the best treatment option in these cases will be held between the surgeons, medical oncologists, radiation oncologists and the patient.

In Australia, an immune checkpoint inhibitor called “cemiplimab” is funded by the PBS for patients with skin SCCs that have recurred or spread to multiple locations and cannot be removed surgically, or for patients where surgery would significantly impact the patient’s function.

## WHAT IMMUNOTHERAPY TREATMENTS ARE AVAILABLE FOR PATIENTS WITH NASOPHARYNGEAL CARCINOMAS

Toripalimab, an immune checkpoint inhibitor, is available for patients nasopharyngeal carcinoma that have recurred or spread to multiple locations and cannot be removed surgically.

## WHERE CAN I FIND ADDITIONAL INFORMATION?

We encourage you to discuss treatment options with your oncologist, as each patient’s treatment needs to be tailored to their unique needs and type of cancer. For further information see links below.

## MORE INFORMATION

- [Cancer Australia: Immunotherapy](#)
- [Cancer Australia: Australian Cancer Trials](#)
- [Head and Neck - eviQ](#)
- [National Cancer Institute: Immunotherapy to treat cancer](#)

You may want to write additional questions here to ask your doctor or cancer care team

#### **About Head and Neck Cancer Australia**

Head and Neck Cancer Australia is the only national charity dedicated to providing free, trusted and easy to understand information, education and support to people affected by Head and Neck Cancer.

We represent over 5,300 people who are newly diagnosed each year and more than 17,000 people who are living with Head and Neck Cancer across Australia.

We also lead the national effort to advocate for government support to encourage prevention, increase early diagnosis and improve the quality of life of people living with Head and Neck Cancer in Australia.

T: 1300 424 848

E: [contact@headandneckcancer.org.au](mailto:contact@headandneckcancer.org.au)

W: [www.headandneckcancer.org.au](http://www.headandneckcancer.org.au)

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