

Cancer Treatment Options



These are some of the options that may be discussed as part of your cancer treatment. The options available to you will change depending on the type of cancer. Your care team will be able to work with you to select options that will work best for you.

Surgery

Breast Cancer

Lumpectomy (breast-conserving surgery) – This procedure is also called a ‘wide local excision’ and removes the breast cancer with a small section of surrounding normal breast tissue. The removal of the small section of surrounding breast tissue creates a clear margin between the cancer and healthy breast tissue. The rest of the breast is conserved.

Mastectomy or bilateral mastectomy – This is a surgical procedure that removes one or both entire breast/s and sometimes the nipple (though a nipple-sparing surgery may be an option for nipple preservation). Nipple preserving mastectomy can be performed depending on the location and extent of the breast cancer, or the need for surgery. This often needs discussion with the treating surgeon.

Breast reconstruction – surgery rebuilds the shape of the breast after a mastectomy (breast removal), and the goal is to restore the appearance of the breast, helping patients feel more confident and comfortable with their bodies. The decision to have breast reconstruction is a personal one and should be made in consultation with a healthcare professional, including a [FRACS-qualified surgeon](#).

Removal of lymph nodes – This procedure helps check for the spread of cancer from the breast to lymph nodes in the armpit and around the central sternum (breastbone).

The axillary lymph nodes, which are located in and around the armpit, are the first place that breast cancer cells often spread to and may require one or both of the below procedures:



- Sentinel lymph node biopsy (SLNB) – during a sentinel lymph node biopsy, lymph nodes that drain that part of the breast with the cancer are removed to be tested for cancer cells. This may be one or more lymph nodes. The rest of the lymph nodes are left in place if no cancer cells are present. More information on this procedure is outlined [here](#).
- Axillary lymph node dissection (ALND) – Also known as axillary clearance, this procedure is done if there is lymph node disease at presentation or time of diagnosis of breast cancer, or a positive node on sentinel node biopsy was identified at breast surgery. The majority of the lymph nodes (10–25) are removed to reduce the risk of recurrence and help determine the appropriate treatment plan.

Ovarian Cancer

Surgery is usually the first treatment for ovarian cancer. The type of surgery will depend on the stage of your cancer and whether it has spread.

Surgery aims to remove as many of the cancer cells as possible, including any organs and tissues the cancer has spread to. The type of surgery will depend on how certain your doctor is about where your cancer is and how far the tests indicate the cancer has spread.

The surgery may be:

- **Laparoscopic:** keyhole surgery with 3–4 small cuts in your abdomen, or
- **Laparotomy:** a long cut from your belly button to your bikini line.

If your cancer has spread, the doctor may recommend that you have:

- **Unilateral salpingo-oophorectomy:** the ovary and fallopian tube removed, or
- **Total hysterectomy and bilateral salpingo-oophorectomy:** the entire uterus and cervix, along with both fallopian tubes and ovaries removed.

Depending on your cancer, your doctor may also consider whether other tissues and organs need to be removed, as well as any abnormal looking lymph nodes.



Chemotherapy

This systemic treatment uses cytotoxic drugs with the aim to destroy cancer cells throughout the body, killing cells or slowing cancer growth. It is often given as an intravenous infusion every 2–3 weeks or weekly. It can be cytotoxic to healthy cells as well as cancer cells. Some of the common side effects include temporary hair loss, nail changes, mouth ulcers, nausea and fatigue.

Neoadjuvant chemotherapy is when chemotherapy is used prior to surgery to either reduce or control the cancer. If chemotherapy is used after surgery, it is called **adjuvant chemotherapy**, and aims to reduce the risk of the cancer returning.

Breast Cancer

Chemotherapy is often used for breast cancers that aren't sensitive to hormone therapy, are HER2+ or triple negative, or for inflammatory breast cancers. It is sometimes used for hormone-sensitive breast cancers.

Chemotherapy can be used before surgery to slow the growth of a fast-growing breast cancer or to shrink a large tumour to allow for a smaller operation (e.g. breast conserving surgery instead of mastectomy)

Ovarian Cancer

Most women with ovarian cancer will have surgery then chemotherapy to remove any leftover cancer cells. When chemotherapy is used following another treatment option such as surgery, this is called adjuvant chemotherapy. Adjuvant chemotherapy will usually start 2–4 weeks after surgery.

Some women with stage III or IV ovarian cancer might have chemotherapy before surgery to shrink the tumour.



Endocrine or hormonal therapy

Hormone therapy is used for hormone-sensitive cancers (e.g., breast or prostate cancer) to block or reduce the effects of hormones that fuel cancer growth. This often involves taking one tablet daily for about 5–10 years. It may produce some menopausal side effects. Hormone therapies use synthetic hormones to block the body's natural hormones or a part of your body may be removed to prevent natural hormone production.

It is usually used alongside other cancer treatments and can help to shrink a tumour before surgery or radiation, decrease the risk of cancer returning after treatment, or to slow the development of cancer throughout the body and manage symptoms.

Breast cancer

If your cancer has hormone receptors detected such as oestrogen or progesterone, doctors may offer you hormonal therapies. These therapies lower the level of hormones in the body or change the way your body responds to them.

Some therapies include anti-oestrogens such as Tamoxifen, which stops cancer cells from responding to oestrogen. Tamoxifen is taken as a single tablet, once a day for five years.

For women who haven't reached menopause, they can take treatments to stop the ovaries from releasing oestrogen. Drugs like goserelin (Zoladex®) temporarily stop the ovaries from making oestrogen.

Uterine Cancer

Hormone treatment may be used if the cancer has spread or if the cancer has returned, particularly if it is considered a low-grade cancer. It can also be used as an alternative to surgery where surgery is not an option, such as if a woman still wants to have children. The main hormone treatment for oestrogen-dependent uterine cancer is progesterone.

Ovarian Cancer

Hormone therapy is mainly used for ovarian stromal tumours. Luteinising-hormone-releasing hormone (LHRH) agonists, tamoxifen and aromatase inhibitors can prevent oestrogen from stimulating cancer cell growth.

Prostate Cancer

Hormone treatment for prostate cancer might be used for locally advanced or advanced cancer. It is an androgen-deprivation therapy (ADT) which slows the production of testosterone in the body. Testosterone is required for prostate cancer to grow.



Radiation Therapy

This uses high-energy external beams of radiation to destroy cancer cells so they can't grow, multiply or spread. It breaks up abnormal cells, stopping them from growing and dividing.

Radiation can be used to target and shrink metastatic tumours by damaging metastatic cells. It can also be used to alleviate pain and other symptoms caused by cancer which has spread to the bones or brain.

Breast Cancer

Radiation therapy in breast cancer might be used after breast conserving surgery, after a mastectomy if there is concern for reoccurrence or a concern it has spread to the lymph nodes.

If you are having chemotherapy, radiation therapy usually begins 3 – 4 weeks after you have completed chemotherapy.

Ovarian Cancer

Radiotherapy is not commonly used for ovarian cancer although it can be recommended to treat the pelvis or other sites if the cancer has spread.

Prostate Cancer

Radiotherapy may be offered to me with early prostate cancer or may be offered if surgery is not an option.



Targeted therapies

Targeted therapy can specifically attack cancer cells without harming normal cells. Targeted therapy blocks the proteins (enzymes) and stops cancer cells from growing, dividing and repairing themselves. They may be used in cancers with specific genetic mutations.

Breast Cancer

Targeted therapies work for specific types of HER2-positive breast cancer. They target the HER2-positive cells within the cancer and stop them from growing and dividing.

For women who have the BRCA1 or BRCA2 gene mutation, a poly ADP ribose polymerase (PARP) inhibitor – an enzyme involved in DNA repair – might be suggested. They are usually recommended after chemotherapy and work by stopping the cancer from growing.

Ovarian Cancer

Targeted therapy for Ovarian Cancer may be offered depending on the type of ovarian cancer, treatments that have been used, and whether you have a gene mutation that suggests you will respond to targeted therapies.

For people who have high-grade epithelial cancer and who also have a BRCA1, BRCA2 or other genetic mutation, the targeted therapies may include olaparib or niraparib after chemotherapy to help prevent reoccurrence of the cancer.



Other Treatment Options

Angiogenesis inhibitors – These drugs target the blood vessels that supply tumours with nutrients and oxygen, slowing their growth.

Bone-directed therapy – To help prevent or treat bone fractures and other complications when cancer has spread to the bones. Drugs known as bisphosphonates or denosumab are used to strength the bones and decrease fractures.

Immunotherapy – Immunotherapy is a type of cancer treatment that assists the body's immune system to fight cancer. It can boost the immune system to fight cancer or remove barriers so that the immune system can attack the cancer.

Clinical trials – Clinical trials can provide access to experimental and novel treatments and therapies that may not be available otherwise. These trials help advance cancer research and may offer new hope for patients.

Alternative and complementary therapies – Some patients explore complementary therapies like acupuncture, massage, meditation, or dietary changes to help manage symptoms. It is always essential to discuss these options with your healthcare team to ensure they are safe and do not interfere with your primary treatment.

Palliative care – Palliative care focuses on relieving symptoms and improving the quality of life for patients with metastatic cancer. It can be provided alongside curative treatment or as the main approach for patients not wishing to pursue further medical treatment.

Hospice care – Is provided when the focus shifts from aggressive treatment to end-of-life care and comfort. It provides comprehensive support for patients and their families during the end-of-life transition.