

Systemic Therapy

Systemic therapy is a term used to describe treating cancer with medications. These medications can be anti-cancer drugs, drugs that target only cancer cells, immune system drugs and hormones. The type or types of drugs used to treat cancer are chosen based on your individual cancer and can be a single type of drug or a combination of more than one type of drug. Some drugs are given through a vein, some by a needle and others can be given by mouth. Your oncologist will discuss your options with you after reviewing your test results so that your individualized treatment plan can be made.

The following is general information about the different types of medications available and what they are used for.

Chemotherapy

Chemotherapy is treatment with **anticancer drugs**. Anticancer drugs are powerful agents that work by destroying cancer cells or by preventing them from multiplying, growing or spreading to other parts of your body.

When you are given a single dose of chemotherapy, the agent will only kill some of the cancer cells. That is why most people are given a number of **chemotherapy cycles**.

Chemotherapy **agents** may affect the whole body, so healthy cells can also be damaged. This damage to healthy cells causes side effects. These side effects are temporary because the healthy cells will repair themselves.

Goals of Chemotherapy

The choice of treatment to be used will depend on the kind of cancer you have, its stage and what the goal of the treatment is. Chemotherapy is usually given in addition to other cancer treatments, such as surgery, radiation, or other systemic therapies. Your cancer centre team will explain why chemotherapy is a treatment option for you. The goals of your treatment may be to:

✓ **Cure the cancer**

Chemotherapy, by itself or with another treatment, is given to destroy cancer cells in the body. Many types of cancer can be treated with a combination of chemotherapy agents.

✓ **Shrink a tumour before other treatments (neoadjuvant chemotherapy)**

Sometimes chemotherapy is given to shrink a tumour before surgery or radiation

✓ **Destroy cancer cells after other treatments (adjuvant chemotherapy)**

Chemotherapy is often given in addition to surgery or radiation treatments to destroy cancer cells that may have been missed by the surgery or radiation

✓ **Prepare for a bone marrow or stem cell transplant (ablative chemotherapy)**

Chemotherapy is used to destroy the bone marrow before it is replaced by the stem cells or bone marrow from a donor

✓ **Relieve symptoms caused by cancer (palliative chemotherapy)**

Chemotherapy may be given to reduce pain and other symptoms of cancer.

Targeted Therapy

All cancer cells grow on their own paths. Targeted Therapy is a treatment that blocks these paths so that the cancer cells cannot use them to grow. Targeted Therapies are made to work only on the cancer cells, they do not cause the same types of side effects as chemotherapy. Some of the drugs used for targeted therapy are taken by mouth (a tablet or a capsule), and some are given in the clinic through your vein.

Biologic Therapy

Your immune system is your body's defence against disease. Biologic Therapies are drugs that work with your immune system to help fight your cancer (also called immunotherapy) these drugs are made from natural sources, but they do have side effects, including allergic-type reactions and flu-like symptoms. These medicines may be given through your vein or with a needle.

Hormonal Therapy

Hormones are natural substances or chemicals in your body. Some types of cancer use these hormones to help them grow. Hormonal Therapies are drugs that stop certain hormones from being made, or from being active in the body. Stopping the hormones can stop the cancer cells from growing. These drugs may be taken by mouth or in a needle.

More Information:

Click on the links below for more information about cancer and systemic therapy

[Cancer Care Ontario](#)

[Canadian Cancer Society](#)