

FAQ: Chemotherapy & Immunotherapy

What are chemotherapy and immunotherapy and how do they work?

Chemotherapy and immunotherapy are two types of drug therapy used to treat cancer. Chemotherapy (chemo) is the general term for any medication or combination of medications that kill, damage, or prevent the growth of cancer cells. Chemo slows down or stops the growth of cancer cells by recognizing and attacking cancer cells by their fast rate of division (reproduction). Unfortunately, some normal cells that also reproduce quickly are affected. For example, the cells lining the digestive tract and hair follicles, which can cause nausea, hair loss, and other side effects. The good news is that, for most, side effects get better after chemo is over.

Immunotherapy, a type of biological therapy, is a cancer treatment that works by helping your immune system fight cancer. (Biological therapy is any treatment that uses substances made from living organisms to treat cancer.) The immune system detects and destroys abnormal cells, helps your body fight disease, and most likely prevents or curbs the growth of many cancers. It is made up of white blood cells and organs and tissues of the lymph system. These medications help make cancer cells “visible” to the immune system.

What are the different kinds of drug therapy?

Many drugs and combinations of drugs are used to fight cancer. When only one drug is given, it is called *single-agent therapy*. If several drugs are given at the same time, it is called *combination therapy*. Your doctor will work with you to choose the best treatment option for you.

How is drug therapy administered?

It can be given in a number of ways.

- **Oral:** Some drugs are available in pill or liquid form that can be taken by mouth.
- **Topical:** Some drugs can be applied topically, as a cream or lotion.
- **Injection:** The name of the injection tells you where the medications will be placed:
 - **intravenous (IV):** into a vein. Many medications are too harsh to go through the digestive tract, so they are given intravenously (IV). IV drug therapy is delivered through a small tube, called a catheter. One end of the tube is connected to a bag of medication and the other end is in a vein.
 - **intrathecal or intraventricular:** into the fluid that surrounds the spinal cord and brain
 - **intramuscular:** into a muscle
 - **intra-arterial (IA):** into an artery
 - **subcutaneous:** just under the skin
 - **intrapleural:** into the chest cavity
 - **intraperitoneal (IP):** into the abdominal cavity
 - **intravesical:** into the bladder
 - **intra-tumoral:** into the tumor

How will I feel during drug therapy? Will it be painful?

Most people do not find getting IV drug therapy itself a painful experience, but it affects people in different ways, and those effects can vary widely. Factors that can influence how it will affect you include your previous health, your type and stage of cancer, the type and dose of drug therapy you are receiving, and other current medical conditions. Doctors and nurses cannot know for certain how you will feel during your infusion. Please talk to your nurses about managing your side effects.

How long does drug therapy last?

Drug therapy is given during a series of treatment sessions. For example, you may get treatment once a week followed by three weeks of rest. Together, this is called one **cycle**. When the cycle is repeated multiple times, on a regular basis, it is called a *course* of treatment. Your Roswell Park team will discuss the details of your drug therapy with you. When you begin your treatment, your doctor may tell you how when your drug therapy will be complete or the length of treatment may depend on how you respond. There are complications that can delay treatment. The most common cause of delay is a drop in your white blood count (WBC), also called *neutropenia*, which puts you at high risk for infection. Complications such as a drop in WBCs, RBCs (red blood cells), or platelets need to be resolved before you can have another treatment.

What can I do to make my drug therapy as successful as possible?

Eat a balanced diet, get plenty of rest, seek support, and talk to your doctor or nurse if you have:

- side effects other than those you have been told to expect
- side effects are persisting despite prescribed medications
- side effects are severe.

Preparing yourself is important. We are here to help!

If you have not already received it, ask your nurse for a copy of “Taking the Lead”, Roswell Park’s guide to what you can do to live well during drug therapy.

You can also find [Taking the Lead](#) in the patient education library on the Roswell Park website (<https://www.roswellpark.org/pted.php?pemID=PE1578>) and in MyRoswell, your patient portal: my.roswellpark.org