

Getting IV or Injectable Chemotherapy

Many types of chemo are given as an infusion or injection. With chemo infusions, chemotherapy drugs are put into your body through a thin tube called a *catheter* that's placed in a vein, artery, body cavity, or body part. In some cases, a chemo drug may be injected quickly with a syringe. Here you'll learn about the different types of injectable chemo.

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The information below describes traditional or standard chemotherapy. There are also other drugs that are used to treat cancer in different ways, including [targeted therapy](#)¹, hormone therapy, and [immunotherapy](#)².

Intravenous (IV) chemo

Intravenous or IV chemo is put right into your bloodstream through a tiny, soft, plastic tube called a *catheter*. A needle is used to put the catheter into a vein in your forearm or hand; then the needle is taken out, leaving the catheter behind.

Intravenous drugs are given in these ways:

- **IV push:** the drugs can be given quickly through the catheter right from a syringe over a few minutes.
- **IV infusion:** a typical infusion can last from a few minutes to a few hours. A mixed drug solution flows from a plastic bag through tubing that's attached to the catheter.

The flow is usually controlled by a machine called an IV pump.

- **Continuous infusion:** These infusions can last anywhere from 1 to several days and are controlled by electronic IV pumps.

What if I don't have good veins?

The needles and catheters can scar and damage veins with ongoing chemo. One option that might be offered to patients who need chemo for an extended period of time is a [central venous catheter](#)³ (CVC). A CVC is a bigger catheter that's put into a large vein in the chest or arm. It stays in as long as you're getting treatment so you won't need to be stuck with a needle each time. Different kinds of CVCs are available.

Putting in the CVC requires a minor surgical procedure. Sometimes this is done in a clinic or hospital room and sometimes in an operating room. But once a CVC is in place, you can get all your treatments through the CVC, will not be stuck multiple times for IVs, can have most blood tests drawn through it, and can get other treatments you might need through it, such as fluids, blood transfusions, or antibiotics.

Many people talk about CVC options with their doctor even before starting treatment. Some find out during treatment that they need a CVC because it becomes more difficult over time to find a suitable vein in their hand or arm to use for infusions or injections. Your health care team can help you decide if you need a CVC and what type is right for you.

Other ways to give chemo infusions or injections

Intrathecal (IT) chemo

Intrathecal or IT chemo is put into the spinal canal through a catheter, and goes into the fluid that surrounds the brain and spinal cord, called the **cerebrospinal fluid** or **CSF**. This way of giving chemo may be needed for certain kinds of cancers that affect the brain since most chemo drugs delivered by IV or by mouth cannot pass through the blood-brain barrier that protects the brain from many toxins.

When IT chemo is given, it can be delivered to the CSF through a needle placed in the spinal area, or through a long-term catheter and port put under the skin on your head during surgery. This special kind of port is called an **Ommaya reservoir**. The Ommaya is a small drum-like device with a small tube attached to it. The tube goes into the CSF in a cavity of your brain. The Ommaya stays in place under your scalp until treatment is

done.

Intra-arterial chemo

In intra-arterial treatment, the chemo drug is put right into the main artery that supplies blood to the tumor. It might be used to treat a single area (such as the liver, an arm, or leg). This method helps the treatment be more specific to one area and can help limit the effect the drug has on other parts of the body.

Intracavitary chemo

Chemo drugs may be given through a catheter into an enclosed area of the body such as the bladder (called **intravesicular** or **intravesical chemo**), the abdomen or belly (called **intraperitoneal chemo**), or the chest (called **intrapleural chemo**).

Intramuscular (IM) chemo

The drug is put into a muscle through a needle that's attached to a syringe (as an injection or shot).

Intralesional chemo

A needle is used to put the drug right into a tumor. It's only possible when the tumor can be safely reached with a needle.

Intravesical chemo

The chemo is put right into the bladder through a soft catheter. It stays in for a few hours and is then drained out, and the catheter is removed.

Where do I go to get a chemotherapy infusion or injection?

The place you get your chemo infusion or injection depends on which chemotherapy (chemo) drugs you're getting, the drug doses, your hospital's policies, your insurance coverage, what you prefer, and what your doctor recommends.

You may get chemotherapy:

- At home
- In your doctor's office

- In a clinic
- In a hospital's outpatient infusion center
- In a hospital

Some places may have private treatment rooms, while others treat many patients together in one large room. Ask your doctor or nurse about this ahead of time so you know what to expect on your first day.

How often will I need chemotherapy and how long will it last?

How often you get chemo and how long your treatment lasts depend on the kind of cancer you have, the goals of the treatment, the drugs being used, and how your body responds to them.

You may get treatments daily, weekly, or monthly, but they're usually given in on-and-off cycles. This means, for example, that you may get chemo the first 2 weeks and then have a week off, making it a cycle that will start over every 3 weeks. The time off lets your body build healthy new cells and regain its strength.

Your cancer care team can tell you how many cycles are planned and how long they expect your treatment to last.

Many people wonder how long the actual drugs stay in their body and how they're removed. Your kidneys and liver break down most chemo drugs which then leave your body through urine or stool. How long it takes your body to get rid of the drugs depends on many things, including the type of chemo you get, other medicines you take, your age, and how well your kidneys and liver work. Your cancer care team will tell you if you need to take any special precautions because of the drugs you are getting. To learn more, see [Chemotherapy Safety](#)⁴.

If your cancer comes back, you might have chemo again. This time, you could be given different drugs to relieve symptoms or to slow the cancer's growth or spread. Side effects might be different, depending on the drugs, the doses, and how they're given.

What should I eat before my first chemo treatment?

Your chemo can take anywhere from a few minutes to many hours. Make sure you eat something before treatment, unless you are told something else by your healthcare team. Most of the time, people find that a light meal or snack an hour or so before chemo works best. If you'll be getting treatment for several hours, ask your health care

team about options for eating while you are there. You may be able to order a lunch in some larger treatment centers, or you might need to plan ahead and bring a small meal or snacks in an insulated bag or cooler. Find out if there's a refrigerator or microwave you can use. The treatment center might have limits on what foods can be brought in, so be sure to talk to your cancer care team first.

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html
3. www.cancer.org/cancer/managing-cancer/making-treatment-decisions/tubes-lines-ports-catheters.html
4. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy/chemotherapy-safety.html

References

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Olsen MM, Naseman RW. Chemotherapy. In Olsen MM, LeFebvre KB, Brassil KJ, eds. *Chemotherapy and Immunotherapy Guidelines and Recommendations for Practice*. Pittsburgh, PA: Oncology Nursing Society; 2019:61-90.

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