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Catheters and Ports in Cancer Treatment [1]

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During cancer treatment, your health care team often gives treatment into a vein. You can get chemotherapy, blood transfusions, antibiotics, and intravenous (IV) fluids this way. Your team will probably also take blood samples. To make these treatments easier, you might get a medical device called a catheter or port.

Types of catheters

Catheters are long, narrow, hollow tubes made of soft plastic. Your health care team uses them to give medication into a vein. The medical term for this is intravenous or IV treatment.

IV treatments are often given through a catheter with a small needle. This is called an intravenous catheter, or IV. A nurse puts the needle in your forearm or hand. Besides chemotherapy, you can get fluids or other medications this way. For example, you might get anti-nausea medication in your IV.

Your nurse usually takes out an IV catheter when the day's treatment ends. It might stay in for 2 or 3 days if it is safely in the vein and not causing discomfort. You get a new IV catheter each time you have treatment.

If it works for your veins, you can get most chemotherapy treatments through an IV catheter. But this might not be the best option. This is because:

- You might need an IV every week or several days in a row. It can be uncomfortable to be

stuck with a needle so often.

- Your nurse might have difficulty putting a needle in a vein so often.
- Some chemotherapy damages tissue if not injected directly into the vein. If the veins in your hands and forearms are small or difficult to put a needle into, the risk is higher that chemotherapy will be injected into tissue around the vein.

Your nurse or doctor may suggest using a bigger catheter. This goes into a large vein in your upper arm or neck.

Your doctor may put this type of catheter completely under the skin. If so, it is connected to a small plastic or metal disc called a port. The entire device is called a port-a-cath. Or, the tip of the catheter can stay outside the body. This lets your nurse put medication into it. When you are not getting treatment, the tip is clamped or capped to keep it closed. Some catheters have 2 or 3 tips. These are called double lumen or triple lumen catheters. This lets your team give more than 1 treatment at once.

Different types of catheters

There are several types of catheters, but they work in similar ways. Which one you have depends on many factors. These include:

- How long you need cancer treatment
- Your type of treatment
- How easy the catheter is to care for
- Cost

Where your doctor puts your catheter and how it is put in depends on the type. Below is a list of different catheters.

- **Peripherally inserted central catheter (PICC).** This is also called a PICC line. A nurse or doctor with special training puts it in a large vein near your elbow. Your team gives you local anesthetic to numb the skin and tissue when it is inserted.
- **Central line, tunneled venous catheter, or Hickman catheter.** A nurse or doctor with special training puts this catheter in a large vein under the collarbone. Or it might go into a neck vein. The tube goes under the skin. The tip is usually in the upper chest. Your team gives you local anesthetic or conscious sedation when it is put in. Conscious sedation is medication to help you relax and feel sleepy.
- **Implantable port or port-a-cath.** A surgeon or radiologist puts in a port, usually with local anesthesia or conscious sedation. The catheter goes under the skin of your chest or upper arm.

A port is completely under your skin. You might see or feel a small bump on your chest or arm. But you will not see the tip of the catheter. To give treatment, your nurse may first numb the skin with a cream. Then, your nurse cleans the skin and puts a needle into the port. Treatment or blood samples go through the needle.

Benefits of catheters and ports

A catheter in the upper arm or neck can stay in place for weeks or months. Your team can use it to:

- Reduce the number of times a nurse or other team member sticks you with a needle. Health care team members call this a needle stick. This helps if you have small or damaged veins. These veins are often harder to take samples from. A catheter can also help if you need blood tests often or are anxious about needles.
- Give blood transfusions or more than 1 treatment at once.
- Reduce the risk of tissue and muscle damage. This can happen if medication leaks outside a vein. Leaking is more likely with an IV catheter.
- Avoid bruising or bleeding if you have bleeding problems, such as low platelet counts.
- Lets you have some chemotherapy at home instead of the hospital or clinic. Continuous infusion therapy is given this way.

Ports can remain in place for weeks, months, or years. Your team can use a port to:

- Reduce the number of needle sticks.
- Give treatments that last longer than 1 day. The needle can stay in the port for several days.
- Give more than 1 treatment or medication at a time. If this is done, the port has 2 openings.
- Do blood tests and chemotherapy the same day with 1 needle stick.

Caring for catheters and ports

Each catheter type has potential side effects and risks. These include [infections](#) [3], blockages, and [clots](#) [4]. Less common problems are a kink in the catheter under your skin or the catheter or port moving. Talk about side effects and risks with your doctor.

Taking care of your catheter or port reduces the risk of problems. If your catheter has a tip outside your skin, take special care of the tip and area around it. You must also flush the catheter with sterile fluid every day. This keeps it from being blocked. An IV care service can help until you feel comfortable. They can help at home or your doctor's office.

Your doctor or nurse will give you detailed instructions on taking care of your catheter or port. Typical instructions are:

- Wash your hands before you touch the catheter. This helps prevent infection.
- Never touch the catheter tip when the cap is off.
- Follow instructions on cleaning the area and changing the bandage.
- Keep air out of the catheter. Make sure the top or clamps are on tight except during treatment.
- Avoid any breaks or cuts in the catheter.

- Flush a small amount of fluid into the catheter so it does not get blocked. Your nurse can show you how.
- Keep the catheter area from going underwater.

A port is completely under your skin, so it needs less care. Ask your team for instructions on caring for the area. Follow the instructions until it heals. You may also need to flush the port so it does not get blocked.

Warning signs of catheter or port problems

Contact your doctor immediately if:

- The area becomes red, swollen, painful, bruised, or warm.
- There is a lot of bleeding.
- You get a fever.
- Any fluid leaks out.
- You have shortness of breath or dizziness.
- The catheter tube outside your body gets longer.
- You cannot flush the catheter or port with liquid. It seems blocked. Never force fluid into the catheter.

Removing catheters and ports

Your doctor or nurse will take out your catheter or port when you no longer need it.

If you have a PICC line, the doctor or nurse will gently pull the tube until it feels loose. Then they will remove it. This does not usually hurt. You do not normally need anesthesia.

If you have port or neck or chest catheter, your doctor or radiologist will make a small cut in the skin. Then they will gently remove the port or catheter. You may need local anesthesia or conscious sedation.

Questions to ask your doctor

- Why are you recommending a catheter or port?
- What are the risks of a catheter or port?
- Will my health insurance cover the cost of putting it in?
- What do I need to do before getting a catheter or port?
- Will I feel any pain when the doctor puts in a catheter or port?
- How long does the procedure take?
- How long will the catheter or port stay in?
- How should I care for my catheter or port?
- Will I be able to see or feel the catheter or port?
- Can I wear regular clothes?
- Can I bathe and swim?

- Can I exercise?
- Will a catheter or port cause problems with radiation therapy or scans?
- Who should I call if I have problems?

More Information

[Understanding Chemotherapy](#) [5]

[What to Expect When Having Chemotherapy](#) [6]

American Society of Clinical Oncology Clinical Practice Guideline: [Central Venous Catheter Care for the Oncology Patient](#) [7]

Links

- [1] <http://www.cancer.net/navigating-cancer-care/how-cancer-treated/chemotherapy/catheters-and-ports-cancer-treatment>
- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/25256>
- [4] <http://www.cancer.net/node/25245>
- [5] <http://www.cancer.net/node/24723>
- [6] <http://www.cancer.net/node/24473>
- [7] <http://www.asco.org/guidelines/cvc>