



PATIENT & CAREGIVER EDUCATION

About Your Intrathecal Pump

This information explains your intrathecal pump, including how it works, how it's placed, and how it can help you manage your cancer pain.

About Your Intrathecal Pump

An intrathecal pump is a small, round device that holds pain medication. It's implanted (surgically placed) under your skin at the side of your abdomen (belly) and sends pain medication through a catheter (thin tube) directly to the nerves in your spine. When the medication goes directly to the nerves in your spine, it reduces the amount of pain you feel.

Your doctor may recommend an intrathecal pump for you if oral (by mouth) or intravenous (IV, into a vein) pain medications don't control your pain.

Oral and IV pain medications are absorbed into every part of your body. This can cause unwanted side

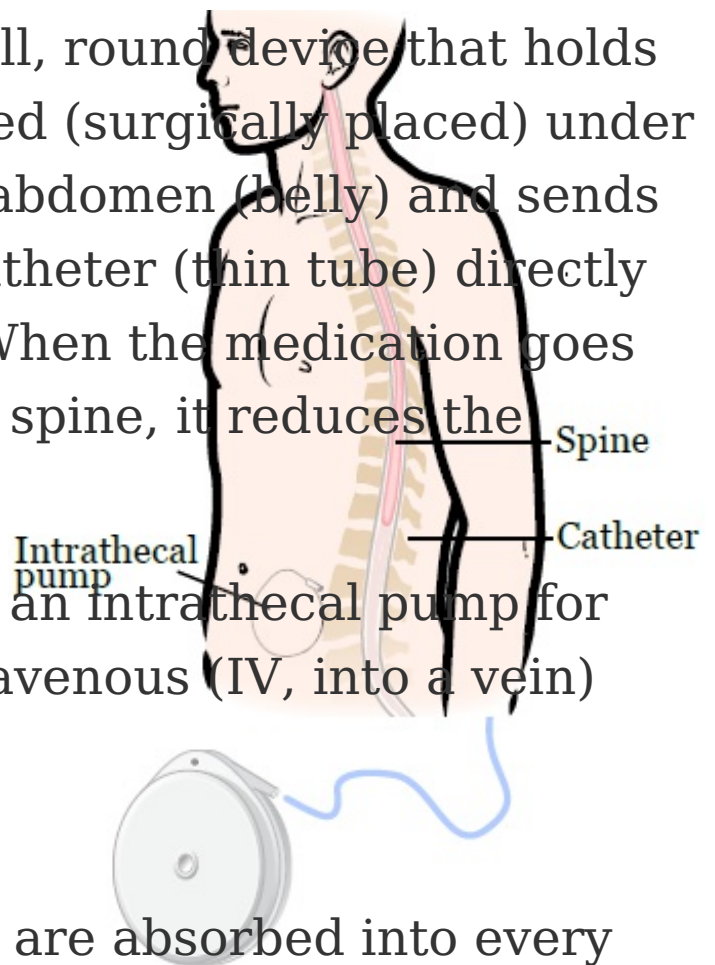


Figure 1. Your intrathecal pump

effects. Most of the medication from the intrathecal pump goes directly to the nerves in your spine, so you will need less medication and should have less side effects.

The parts of your intrathecal pump

The intrathecal pump has 2 main parts: the pump and the catheter.

- The **pump** is a round device. It’s about 1 inch thick and 3 inches wide, which is about the size of a hockey puck. The pump will look like a bulge under the skin of your abdomen (see Figure 1).
- The **catheter** is connected to the pump. It sends pain medication from the pump to your nerves.

Intrathecal pumps and epidural catheters

Intrathecal pumps are different from epidural catheters, which is what women get during childbirth. While both pumps give pain medication directly to the nerves in your spine, there are some differences.

This table gives some examples of how intrathecal pumps and epidural catheters are different.

Intrathecal Pump	Epidural Catheter
The pump is inside your body	The pump is outside of your body attached to a pole

Placed during surgery while you're asleep	Placed by your pain doctor with some medication to make you comfortable
Can be used at home	Can't be used at home

About Your Intrathecal Pump Placement

If you and your doctor decide that an intrathecal pump is right for you, you will have a surgery to implant your pump. Your nurse will give you more information about your surgery and tell you how to get ready.

What to expect during your surgery

You will be given general anesthesia (medication to make you sleep) before your surgery starts. Once you're asleep, your doctor will make an incision (surgical cut) in your abdomen where the pump will be placed. Your doctor will make another incision on your back.

One end of the catheter will be placed near the nerves in your spine. The other end of the catheter will be attached to the pump so that it can give you pain medication. The incisions will be closed with sutures (stitches).

Your surgery will take 1 to 3 hours.

What to expect after your surgery

After your surgery, your incisions may be sore. You will be given a prescription for pain medication before you leave the hospital. Talk with your doctor or nurse about possible side effects and when you should start switching to over-the-counter (medication you get without a prescription) pain medications.

You will stay in the hospital for 2 to 3 days as your doctor plans the type and amount of medication you will need to control your pain.



Your doctor or nurse will give you an identification card that says you have an implanted device. **Carry this card at all times while you have your intrathecal pump, both in the hospital and at home.**

Activities after your surgery

For about 6 to 8 weeks after your surgery, follow these guidelines so your body can heal.

- Don't lift anything heavier than 10 pounds (about 4.5 kilograms).
- Don't bend over, such as to pick something up from the ground.
- Don't twist your body, such as to crack your back.

- Don't expose your body to extreme hot or cold temperatures, such as in a sauna, hot tub, or ice bath.

Talk to your pain doctor about when you can go back to your normal daily activities.

Follow-up appointment

You will have a follow-up appointment with your pain doctor and the doctor that performed your surgery 1 to 2 weeks after your surgery. Your doctor will take out your sutures during this appointment.

Caring for Your Intrathecal Pump

Refilling your pump

The medication in your pump will need to be refilled every 4 to 6 weeks by your pain doctor. You will need to make appointments with your pain doctor for your refills.

Call your pain doctor's office 1 week before your refill appointment so that your medication can be ordered in time.

Between refills

Between refills, the amount of medication you get through your pump may need to be changed if your pain increases. Your pain doctor will adjust the settings on your pump with your pump's programmer, which is a

portable tablet used to change your pain medication (see Figure 2). You will need to come to the clinic for refills and any changes to the pump.

What to expect at your refill appointment

At your appointment, your pain doctor will numb your skin so that you won't feel any pain. Then, they will put a needle through your skin and into the pump. Your doctor will take out any medication that is left in your pump and will put new medication into it (see Figure 3). They will place a small bandage over the area where the needle was placed. You can remove the bandage after 1 day.

Each time your pump is refilled or changed, you will get a piece of paper with the following information:

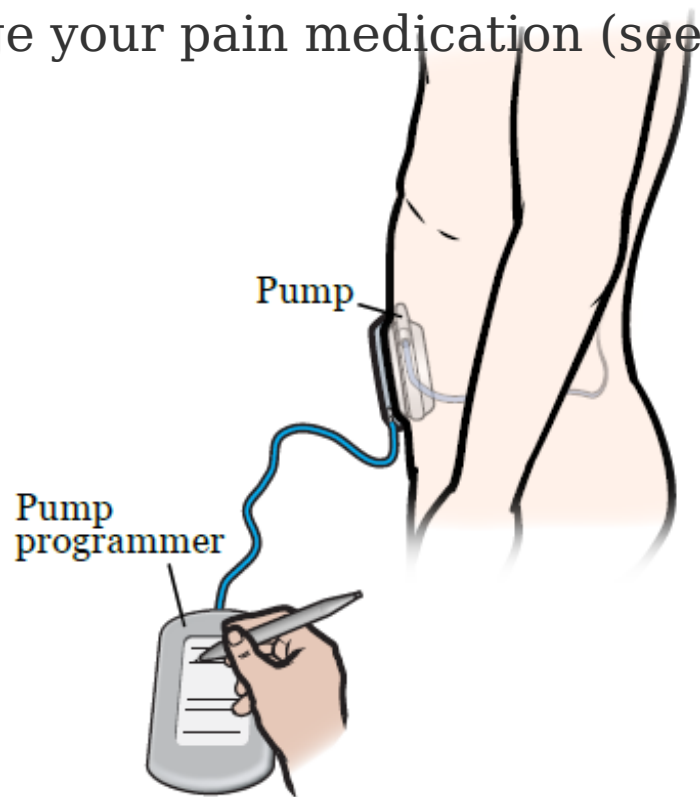


Figure 2. Programming the pump

- The kind of pain medication that's in your pump.
- The amount of medication that the pump gives you.
- The date that your pump will need to be refilled with new medication.

It's important to keep track of this information so that your pump doesn't run out of medication.

Your Personal Therapy Manager

Your doctor will also give you a device called a personal therapy manager (PTM). This handheld programmer will allow you to give yourself an extra dose of medication from the pump if you need it. The amount of this extra dose is preset by your doctor.

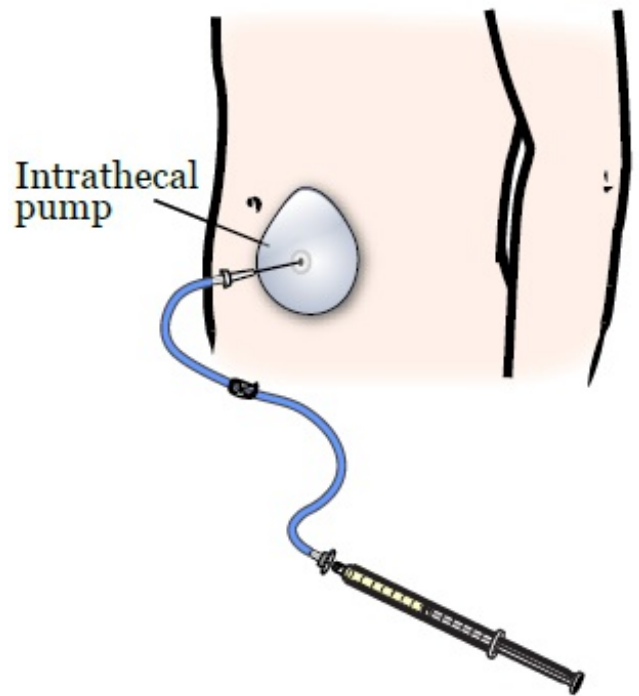


Figure 3. Refilling the pump

If you use the PTM, your pump refill date will show on the home screen and may change depending on how many extra doses you use. Each time you use the PTM, the refill date will be updated on the home screen.

The PTM uses 2 AA alkaline batteries. You should replace the batteries as soon as the home screen shows

that it has used a little over half the charge.

Remember to keep track of your new date. Call your pain doctor's office 1 week before the new refill date to schedule an appointment. You will also need to let the office know to order the medication.

Even with the pump and the PTM, you may still need to take oral pain medication to control your pain.

Frequently Asked Questions

Will the intrathecal pump set off metal detectors?

In most cases, yes. It's important to have your identification card with you to show to security.

Can I have magnetic resonance imaging (MRI) with the intrathecal pump in place?

Yes, but having an MRI will cause your intrathecal pump to stop working for a short time. It may sound an alarm while it's stopped. The pump should work normally after the MRI is done, or shortly after. If you're having an MRI, tell your technologist that you're using an intrathecal pump.

How long will the intrathecal pump work?

The battery in the intrathecal pump usually lasts for 4 to

7 years. If the battery starts to wear down, it will alert your doctors when they program it. They will have enough time to replace the pump.

Call Your Doctor if:

- Your pain gets worse
- Your side effects, like nausea or sedation (being sleepy), get worse
- Your legs feel numb or weak
- You have pain or redness at the pump site
- You hear a beep from the pump
- You have any questions or concerns

Contact Information

If you have any questions or concerns, call the Anesthesia Pain Service at 212-639-6851. You can reach us Monday through Friday from 9:00 a.m. to 4:00 p.m. After 4:00 p.m., during the weekend, or on a holiday, call 212-639-2000 and ask for the anesthesia pain person on call.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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