

Patient-Controlled Epidural Analgesia (PCEA)

What is PCEA?

Patient-controlled epidural analgesia [an-al-JEE-zhuh], or PCEA, is a way to deliver pain medicine directly to the nerves that send pain messages to the brain.

When your child uses PCEA, pain medicine is pumped into the space around the dura (tough membrane surrounding the spinal column nerves). The medicine seeps into the nerves between the surgery site and the brain. Because it is blocking pain at a local level, your child needs less medicine.

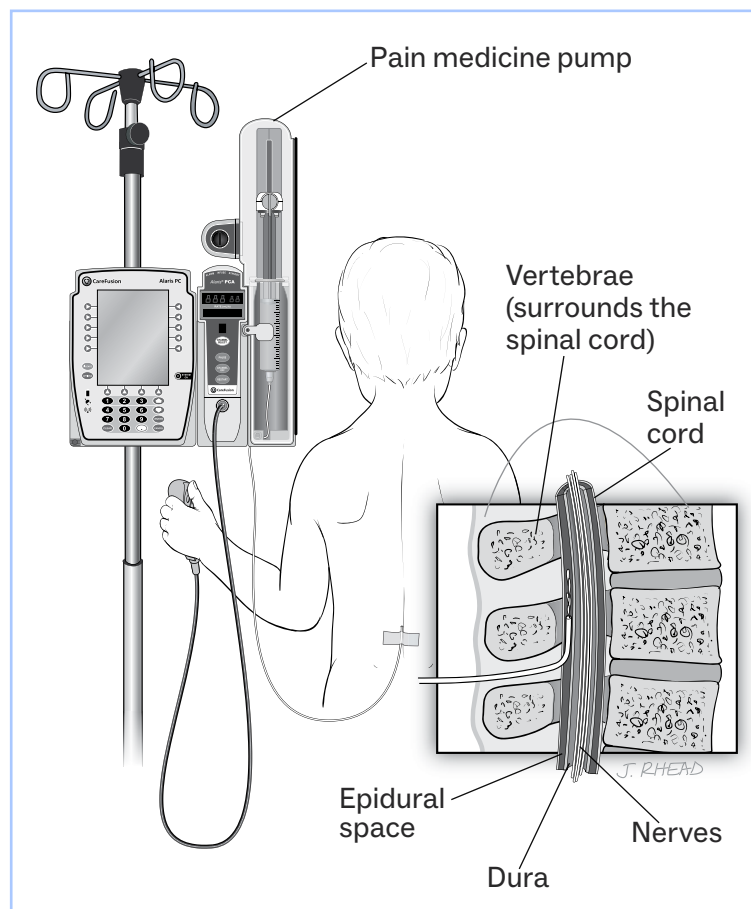
Why does my child need PCEA?

Your child may need PCEA after surgery or for pain caused by illness or injury. A pain service team will decide what kind of medicine and dose your child needs. This includes an **anesthesiologist** [AN-es-thee-zee-OLL-uh-jist], or doctor who provides medicine during surgery, and a nurse. The pain service team will monitor your child and adjust their medicine as needed.

How does PCEA work?

During surgery, a tiny tube (catheter) is inserted into the space next to the dura along the spine. The catheter is taped to your child's back and connected to a pain medicine pump. The pain medicine is constantly flowing, even when your child is sleeping.

If your child needs more medicine, they can push a button attached to the pump. The computer will beep and then give the medicine through the catheter. Only your child or their nurse should push the button.



Can my child get too much medicine?

It is unlikely your child will get too much medicine. The pump releases only a certain amount at a time. The doctor orders the medicine, and the nurse programs the pump so your child gets the medicine correctly.

If your child pushes the button too soon after the last dose, the pump won't give any medicine or respond with a beep. No matter how often your child pushes the button, they'll only get the amount their doctor ordered.

What are the side effects of PCEA?

The most common side effect of PCEA is sleepiness. Your child may sleep more than usual after surgery. Other common pain medicine side effects include:

- Tingling or numbness, mostly in the legs (this doesn't usually last long)
- Upset stomach
- Vomiting
- Slow breathing
- Itching

Your child's nurse will watch them closely to make sure they're not too sleepy. If your child's breathing is different or you notice other side effects, tell their nurse. Your child may need to take other medicine to help reduce any side effects.

How can I help my child manage pain?

Encourage your child to use non-drug pain management techniques in addition to the PCEA. Ask your child's nurse or a child life specialist to help with this.

- Notice when your child is in pain (restless, crying, or refusing to eat or sleep) and tell their nurse.
- Watch for other signs that your child is uncomfortable.
- Encourage your child to press the pain medicine pump button if they feel the pain is getting worse and not wait until the pain is strong.
- Have them press the pump button before doing things that may hurt, like coughing, moving, doing physical therapy, or having bandages changed.

The pain service team and your child's nurse will make your child as comfortable as possible. They will ask about your child's pain and may have them rate their pain using a scale with faces or numbers.

How long will my child have PCEA?

Children usually use the PCEA for 2 to 5 days after surgery. They may stop using the PCEA when they are:

- More comfortable
- Eating and drinking
- Controlling their pain with medicine taken by mouth

A pain service team member or nurse will remove the epidural catheter once your child can take pain medicine by mouth.

Notes