Epidural For Pain Control After Surgery
A Kowalski, O Wenker

Citation

Abstract
An epidural is a way to give pain medicine to patients after surgery. A thin, flexible tube (a catheter) slightly thicker than a hair is inserted into an area near the spinal cord called the epidural space. The epidural space is located between the ligaments that connect your backbones and the bag that holds your spinal cord. It contains many nerve endings supplying other parts of the body.

Strong pain relieving medicine is pumped through the catheter into the epidural space. The medicine blocks the pain signals normally carried to your brain, working much the same way as a wall switch does with electricity in your home. The continuous flow of medicine works to control your pain. There is no waiting for a pill or injection.

This review explains how it works and how the catheter is inserted.

WHAT IS AN EPIDURAL?
An epidural is a way to give pain medicine to patients after surgery. A thin, flexible tube (a catheter) slightly thicker than a hair is inserted into an area near the spinal cord called the epidural space. The epidural space is located between the ligaments that connect your backbones and the bag that holds your spinal cord. It contains many nerve endings supplying other parts of the body.

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WHY SHOULD I HAVE AN EPIDURAL?
Pain control is an important part of your recovery, and an epidural provides a way to control your pain and increase
your activity and involvement in your care.

Less side effects occur when medications are given through an epidural instead of intravenously (through your veins).

**HOW DO I DESCRIBE MY PAIN?**

The medical staff can work with you to adjust your medicine to increase pain relief and decrease side effects. Pain rating scales and charts, like the ones below, are often used to help patients describe the amount of pain they are experiencing.

Instructions: Try to assign a number from 0 (zero) to 10 (ten) to your pain level. If you have no pain, use a 0. As the numbers get higher, they stand for pain that is getting worse. A 10 means the pain is as bad as it can be. (May be duplicated for use in clinical practice. From McCaffery, M. Pasero C; Pain: Clinical manual, 1999, p. 63. Copyrighted by Mosby, Inc.)

**ADVANTAGES OF AN EPIDURAL**

- better pain control
- less nausea or vomiting
- less anxiety
- ability to walk and move around sooner after surgery
- more alertness and awareness of surroundings
- faster return to normal lung function (especially beneficial to patients with lung disease)
- better ability to perform the coughing and deep breathing exercises that normally follow surgery

**WILL I FEEL ANYTHING?**

To insert the catheter, the doctor numbs the area of your back where the catheter will be placed. Most patients feel little more than pressure.

**HOW IS THE CATHETER INSERTED?**

A special guide is used to insert the catheter into the epidural space. When the guide is removed, the catheter remains in place and is secured with tape so you can move around and get out of bed to walk.

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**Figure 2**

Image 2: Some vital signs such as blood pressure, amount of oxygen in the blood (so-called saturation) and heart rate will be measured before and during insertion of the catheter.

**Figure 3**
Figure 4
Image 3: The area of the back is shaved if necessary and the physician checks for the best location to insert the epidural catheter

Figure 5

Figure 6
Image 4: The equipment needed
Figure 7

Image 5: The back is cleaned with a cold solution

Figure 8

Image 6: The back is covered with a plastic or a sheet (with a hole in the middle)

Figure 9
**Figure 10**
Image 7: The physician checks one more time for the best place to insert the catheter

**Figure 11**
Image 8: The area is numbed with some medicine (you might feel a little burning)

**Figure 12**
Image 9: The special guide is inserted into the skin (this should not hurt anymore)

**Figure 13**
Image 10: The special guide is advanced (you may feel some pressure; should not be hurting)
Image 11: The special guide reached the perfect space near the spinal cord

Image 12: The catheter is inserted through the special guide and advanced

Image 13: The catheter is advanced further into the spinal space.
Figure 18
Image 13: The special guide is removed and the catheter stays in place

Figure 19
Image 14: The catheter is taped safely to the back

Figure 20
WHAT DO I HAVE IN MY BACK?

A small tube (a catheter) slightly thicker than a hair is in your back in the epidural space. Through this catheter you are receiving a combination of pain medicine and numbing medicine, just like the Novocaine® a dentist uses. The catheter is taped securely in place so you can move around and get out of bed to walk. Patients receiving pain medicine in this manner are less drowsy, more alert, and better able to tell doctors and nurses how they are feeling.
Epidural For Pain Control After Surgery

Figure 23
Image 16: The small tube (catheter) in your back

WHAT ARE THIS PUMP AND BUTTON OR HOW WILL THE MEDICINE BE GIVEN?

The pump allows you to receive a continuous amount of pain medication, and you can push the button for extra medication. When you feel “break through” pain, which can occur at any time, you should push the button for an extra dose. There is a safety lock-out for the extra dose, so you do not need to worry about pushing the button too much. You cannot overdose. If you still have pain after pushing the button, ask your nurse to call the pain doctor for more or different medication. Only you should push the button if you want more pain medication. Do not let friends or family push the button for you, especially when you are sleeping. You need to be alert and awake enough to decide that you need more medication. Even though you may need more pain medication, you cannot get “hooked.” Tolerating pain can slow your recovery. Patients have wide ranges of pain control needs, the important thing is to stay as comfortable as possible and let your body heal.

Figure 24
Image 17: A typical pump

Figure 25
Image 18: Pushing the button

WHO TAKES CARE OF MY EPIDURAL?

Your pain team is always available 24 hours a day, 7 days a week. This team will check on you several times every day. They are responsible for your pain control, pump, medicine, dressing site, and epidural.
HOW WILL MY PAIN BE CONTROLLED WHEN IT IS TIME FOR THE CATHETER TO COME OUT?

Before the catheter is removed, another pain medication will be ordered for you. It is important for you to request pain medication when you feel uncomfortable. Don't wait to see how bad your pain may become.

POSSIBLE SIDE EFFECTS

- Itching is common. Ask your nurse for Benadryl®.
- Nausea may occur. Ask your nurse for a medication to treat this.
- Tell your nurse if you feel drowsy or “drugged” and cannot stay awake.
- Tingling or numbness in legs and/or arms can occur. One side of your body may be affected more than the other.
- Infection
- Vomiting

NOTE

Most side effects can be managed or eliminated by adjusting the medicine or removing the catheter. Other risks and hazards resulting from an epidural include headache and chronic pain. Certain complications may result from the use of any anesthetic including respiratory problems, drug reaction, loss of feeling, brain damage, or even death.

Please feel free to ask your anesthesiologist or nurse for additional information. They will be glad to answer any questions you may have about your epidural.

References
Author Information

Alicia Kowalski, MD
Director Acute Pain Service, Assistant Professor, Anesthesiology, Anesthesiology and Critical Care, The University of Texas MD Anderson Cancer Center

Olivier C Wenker, MD, DEAA
Director Technology Discovery, Professor of Anesthesiology, Anesthesiology, Anesthesiology and Critical Care, The University of Texas MD Anderson Cancer Center