



Create a Vivid Portrait of Orthopaedics

Share your Orthopaedic Surgeon Story  
on ANationInMotion.org today!



Advertisement



**AAOS**  
AMERICAN ACADEMY OF  
ORTHOPAEDIC SURGEONS

# OrthoInfo

Your connection to expert orthopaedic information

[Find an Orthopaedist](#)

[AAOS.org](#)

- Home
- About Us
- Glossary
- Español
- Videos & Multimedia
- Resources
- For Physicians

## Parts of the Body

- Shoulder & Elbow
- Hand & Wrist
- Hip & Thigh
- Knee & Lower Leg
- Foot & Ankle
- Neck & Back

## Health Centers

- Broken Bones & Injuries
- Diseases & Conditions
- Arthritis
- Tumors
- Sports Injuries & Prevention
- Children
- Bone Health
- Health & Safety

## Treatment

- Treatments & Surgeries
- Joint Replacement
- Rehabilitation Exercise and Conditioning Handouts

## Your Healthcare

- Patient Safety
- Patient Stories
- Resources

## Anesthesia for Hip and Knee Surgery

Before your joint replacement surgery, your doctor will discuss anesthesia with you. The selection of anesthesia is a major decision that could have a significant impact on your recovery. It deserves careful consideration and discussion with your surgeon and your anesthesiologist.

Several factors must be considered when selecting anesthesia, including:

- **Your past experiences and preferences.** Have you ever had anesthesia before? Did you have a reaction to the anesthesia? How do other members of your family react to anesthesia?
- **Your current health and physical condition.** Do you smoke? Are you overweight? Are you being treated for any condition other than your joint replacement?
- **Your reactions to medications.** Do you have any allergies? Have you ever experienced bad side effects from a drug? What medications, nutritional supplements, vitamins, or herbal remedies are you currently taking?
- **The risks involved.** Risks vary, depending on your health and selection of anesthesia, but may include breathing difficulties, allergic reactions and nerve injury. Your surgeon and anesthesiologist will discuss specific risks with you.
- **Your healthcare team.** The skills and preferences of your surgical and anesthesia team play an important role in the selection of anesthesia.

## Types of Anesthesia

There are three broad categories of anesthesia: local, regional and general.

### Local Anesthesia

Local anesthesia numbs only the specific area being treated. The area is numbed with an injection, spray or ointment that only lasts for a short period of time. Patients remain conscious during this type of anesthesia. This technique is reserved for minor procedures. For major surgery, such as hip or knee replacement, local anesthesia may be used to complement the main type of anesthesia that is used.

### Regional Anesthesia

Regional anesthesia involves blocking the nerves to a specific area of the body, without affecting your brain or breathing. Because you remain conscious, you will be given sedatives to relax you and put you in a light sleep.

The three types of regional anesthesia used most frequently in joint replacement surgery are spinal blocks, epidural blocks and peripheral nerve blocks.

- **Spinal Block.** In a spinal block, the anesthesia is injected into the fluid surrounding the spinal cord in the lower part of your back. This produces a rapid numbing effect that wears off after several hours.
- **Epidural Block.** An epidural block uses a catheter inserted in your lower back to deliver local anesthetics over a variable period of time. The epidural block and the spinal block are administered in a very similar location; however, the epidural catheter is placed in a slightly different area around the spine as compared to a spinal block.
- **Peripheral Nerve Block.** A peripheral nerve block places local anesthetic directly around the major nerves in your thigh, such as the femoral nerve or the sciatic nerve. These blocks numb only the leg that is injected, and do not affect the other leg. One option for a peripheral block is to perform a one-time injection around the nerves in order to numb the leg just long enough for the surgery. Another option for this type of block is to keep a catheter in place, which can deliver continuous local anesthesia around the nerves for up to several days after surgery.

Advantages to regional anesthesia may include less blood loss, less nausea, less drowsiness, improved pain control after surgery, and reduced risk of serious medical complications, such as heart attack or stroke that — although rare — may occur with general anesthesia.

Side effects from regional anesthesia may include headaches, trouble urinating, allergic

Like 23

Tweet

Print Article

## Related Articles

[Alternative Methods to Help Manage Pain After Orthopaedic Surgery](#)

[Hip Arthroscopy](#)

[Knee Arthroscopy](#)

[Managing Pain With Medications After Orthopaedic Surgery](#)

[Patient Guide to Safe Surgery](#)

[Patient Safety](#)

[Total Hip Replacement](#)

[Total Knee Replacement](#)

reactions, and rarely nerve injury.

### General Anesthesia

General anesthesia is often used for major surgery, such as a joint replacement. General anesthesia may be selected based on patient, surgeon, or anesthesiologist preference, or if you are unable to receive regional or local anesthesia. Unlike regional and local anesthesia, general anesthesia affects your entire body. It acts on the brain and nervous system and renders you temporarily unconscious.

- **Administration.** With general anesthesia, the anesthesiologist administers medication through injection or inhalation. The anesthesiologist will also place a breathing tube down your throat and administer oxygen to assist your breathing.
- **Risks.** As with any anesthesia, there are risks, which may be increased if you already have heart disease, chronic lung conditions, or other serious medical problems.

General anesthesia affects both your heart and breathing rates, and there is a small risk of a serious medical complication, such as heart attack or stroke.

The tube inserted down your throat may give you a sore throat and hoarse voice for a few days.

Headache, nausea, and drowsiness are also common.

[Top of page](#)

## Pain Relief After Surgery

The goals of postoperative pain management are to minimize discomfort and allow you to move with less pain in order to participate in physical therapy after surgery. Postoperative pain relief may be achieved using a combination of oral medications or intravenous medications.

A common method of pain control is called "patient-controlled anesthesia" or "PCA." With PCA, you will be able to control the flow of intravenous medication, within preset limits, as you feel the need for additional relief.

If an epidural or peripheral nerve block was used for your surgery, the epidural or peripheral catheter can be left in place and anesthesia can be continued in the postoperative period to help control pain. You may also have control over the amount of pain medication you receive in these catheters, within preset limits.

You will be closely monitored to avoid complications, such as excessive sedation or falls.

The proper use of pain relievers before, during and after your surgery is an extremely important aspect of your treatment. Proper use of pain medication can encourage healing and make your joint replacement a more satisfying experience. Take time to discuss the options with your doctor, and be sure to ask questions about things you do not understand.

[Top of page](#)

Last reviewed: March 2014



Co-developed with the American Association of Hip and Knee Surgeons

*AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon, or locate one in your area through the AAOS "Find an Orthopaedist" program on this website.*