

WHAT IS ANESTHESIA?

Keeping you comfortable and safe during surgery is our priority. At OHSU, anesthesia is given by an anesthesiologist, often working with a certified registered nurse anesthetist (CRNA) or resident. Before your surgery, you will meet with the anesthesiologist to discuss your medical history and to plan the best anesthetic technique for you. Understanding the anesthesia options and how they work is important for the success of your surgery and for a speedy recovery. We believe that the best anesthesia care for you will result when you are a cooperative and well-informed patient, and when we, as doctors, are well-informed, vigilant and caring.

TO OUR PATIENTS

We urge you to read this brochure carefully so you are able to work with your anesthesiologist to make the best decisions about your anesthetic care. If you still have questions, be sure to discuss these issues with your anesthesiologist.

TYPES OF ANESTHESIA

• General Anesthesia

General anesthesia causes you to be unconscious during surgery. The medicine is either inhaled through a breathing mask or tube, or injected through an intravenous catheter - a thin plastic tube inserted into a vein (usually in your forearm). A tube may be inserted into your windpipe to maintain an air passage during surgery. Once the surgery is completed, the anesthesiologist stops the anesthetic, and you wake up in the recovery room.

• Monitored Anesthesia Care

With this approach, the anesthesiologist usually gives pain medication and sedatives through an intravenous line. The surgeon or anesthesiologist will also inject local anesthetic under the skin. This will provide additional pain control during and after the procedure. While you are sedated, the anesthesiologist continually monitors your vital body functions.

• Regional Anesthesia

Regional anesthesia numbs only the portion of the body that will be operated on. Usually, an injection of local anesthetic is given in the area of nerves that provide feeling to that part of the body. There are several forms of regional anesthetics, including:

Spinal anesthesia is often used for lower abdominal, pelvic, rectal or lower extremity surgery. This type of anesthetic involves injecting a single dose of the anesthetic directly into the fluid around the spinal cord in the lower back, causing numbness in the lower body.

Epidural anesthesia is similar to a spinal anesthesia. It is also commonly used for surgery of the lower limbs, as well as during labor and childbirth. For this type of anesthesia, medicine is injected through a thin catheter that has been placed into the space that is near the spinal cord and nerves. This causes numbness in the lower body.

Peripheral nerve blocks are performed by injecting a local anesthetic close to the major nerves that go to a particular part of the body, such as an arm, leg or foot. These injections are performed away from the spinal cord. Peripheral nerve blocks can last from a couple of hours to several days by using small soft tubing to provide continuous infusion of numbing medication. This type of anesthesia is often used in combination with general anesthesia.

Regional anesthesia has the benefit of improving postoperative pain control since your surgical site will be numb after surgery. In cases of epidural anesthesia and peripheral nerve blocks, when a thin catheter is left in place, an infusion of numbing medication can improve your pain control for several days if needed. Regional anesthesia may also accelerate your recovery and decrease the length of your hospital stay. Regional anesthesia can be used in combination with sedation medications into your vein or with general anesthesia if you prefer not to be fully awake during the surgery. Some types of surgeries are not suitable for regional anesthesia and have to be done using only general anesthesia. In addition, some patients have a condition that may not allow them to have a regional anesthesia. Your anesthesia provider will discuss the different options with you and your family.

POSSIBLE COMPLICATIONS

Although serious complications associated with anesthesia can occur, they are very rare and the benefits of modern anesthesia far outweigh the risks. However, no matter how unlikely, it is our responsibility to inform you of possible complications.

Complications associated with the use of general anesthesia range from minor discomforts or injury (sore throat,

nausea, fatigue and chipped tooth) to very serious, but rare, events (pneumonia, stroke, heart attack or even death). Some of the serious complications associated with regional anesthesia (spinal, epidural or nerve block anesthesia) include seizures, cardiac arrest and permanent nerve damage. For some procedures, it may be necessary to insert catheters (small tubes) into arteries or large veins. Complications linked with the insertion of these catheters include damage to the blood vessel, infection, collapsed lung, bleeding, nerve injury or stroke.

YOU & YOUR ANESTHESIA CARE TEAM

Anesthesiologists are doctors trained to provide medical care in the perioperative period. Medical care includes both administering anesthesia and managing a variety of other medical conditions including the treatment of postoperative pain. They are also experts in treating changes in your critical life functions - breathing, heart rate and blood pressure - should such changes occur as a result of your surgery. Anesthesiologists at OHSU either provide direct patient care or work with resident doctors and CRNAs as part of the anesthesia care team.

BEFORE YOUR SURGERY

Because anesthesia and surgery affect the entire body, an interview is often conducted before surgery by a nurse practitioner either over the phone or in person. During this interview, you will be asked to review your medical history, lifestyle and medications. He/she may also inform you about what to expect during your surgery and discuss your anesthetic options. It is important that your anesthesia care team knows as much about your medical history, lifestyle and medications as possible. Some particularly important information you need to share with your anesthesia care team prior to surgery:

• Reactions to Previous Anesthetics

If you have ever had a bad reaction to an anesthetic drug, try to describe exactly what the reaction was, including your symptoms. Give as much detail as possible, such as you felt nauseated when you woke up, or it took a long time to wake up.

• Current Herbal Supplements

The American Society of Anesthesiologists advises patients to stop taking all herbal supplements before surgery. Herbal supplements can cause changes in blood pressure, heart rhythm and increase bleeding.

- **Food and Drug Allergies**

Discussing any known allergies with the anesthesia care team is very important, since some anesthetic drugs cause cross-reactions, particularly for people who have allergies to eggs and soy products. You should discuss any allergies to foods and drugs.

- **Recent and/or Current Prescriptions and Over-the-Counter Medications**

It is also important to let your surgeon and anesthesia care team know about any prescription medications and over-the-counter medications you are taking or have recently taken. Certain prescription medications, such as coumadin, a blood thinner, must be discontinued for some time before surgery. In addition, many people take a daily aspirin to prevent heart attacks. Your doctors need to be aware of these drugs as they can increase bleeding during or after surgery.

- **Cigarette Smoking and Alcohol Use**

Cigarette smoking and alcohol can affect your body like many of the prescription medications you may be taking. Because cigarettes and alcohol affect the lungs, heart, liver and blood, these substances can change the way an anesthetic drug works during surgery. It is important to let your anesthesiologists and surgeon know about your past, recent and current use of these substances before surgery. Undergoing surgery can be a good motivator to quit smoking. You will heal and recover faster, especially at the surgical site, if you stop smoking before your operation.

- **Use of Street Drugs (such as marijuana, cocaine, amphetamines, etc.)**

Patients are often reluctant to discuss matters of illegal drug use, but remember all conversations between you and your surgeon and anesthesia care team are confidential. It is crucial that they know about your past, recent and current use of these substances. The only interest your doctor has in this information is to learn enough about your physical condition in order for you to have the safest anesthesia possible.

THE DAY OF YOUR SURGERY

On the day of your surgery, you will meet the anesthesiologist assigned to provide your care. This is the person who will be best able to answer all of your questions. Together, you will review your medical history as well as results of any medical tests. By this time, he/she will have a clear understanding of your anesthetic needs.

DURING YOUR SURGERY

If you have a pre-existing medical condition such as diabetes, asthma, heart problems, arthritis, etc., your anesthesia care team will have been alerted to this and will be prepared to treat these conditions during your surgery and immediately afterward. Anesthesiologists are trained to handle sudden medical problems related to the surgery as well as any chronic conditions that may need attention during the procedure.

Monitoring is one of the most important roles of the anesthesiologist and CRNA during surgery. Second-by-second observation of changes in a wide range of body functions gives the anesthesiologist and CRNA a tremendous amount of information about your condition. In addition to directing your anesthesia, the anesthesiologist and CRNA will manage vital functions such as heart rate, blood pressure, heart rhythm, body temperature and breathing. He/she will also be responsible for fluid and blood replacement if necessary.

QUESTIONS OR CONCERNS?

If you have any questions or concerns call OHSU Perioperative Medicine Clinic (PAT Clinic) at 503 494-1101 or 503 418-9400.



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Anesthesia: Facts for our patients

