

Anesthesia is a way to control pain during a surgery or procedure using medication. The types of medications used for this purpose are called anesthetics. Anesthesia can help control breathing, blood pressure, and heart rate.

There are several types of anesthesia for patients undergoing hand surgery. These include local, regional, or general anesthesia. The type used depends on several factors. Surgical factors, including the type and length of the surgery are assessed. The patient's health and other medical conditions are also assessed. Also considered are the preferences of the patient, surgeon, and anesthesiologist. Together, the patient and the treatment team decide on a type of anesthesia.

General Anesthesia

The patient is unconscious and does not feel anything during the surgery. With this type of anesthesia, the patient requires airway and breathing support from a ventilator. This is due to the type of gas they are inhaling (or medication in their IV) that puts them to sleep.

Local Anesthesia

This typically means anesthetics for a small area. Numbing medicine is injected at the site of surgery. There are different types of local anesthetic medications that last for different amounts of time. Some may last for only 1 or 2 hours and others may last for 8 or more. When local anesthesia is used alone, the patient is wide-awake during the surgery. The patient can cooperate with instructions from the surgeon. Sometimes the surgeon may ask the patient to move the hand or fingers to see if a finger is still triggering or to check the tension on a tendon repair. Sometimes epinephrine may be mixed with the local anesthetic to limit excessive bleeding. This may make the skin look pale where the medication is injected.

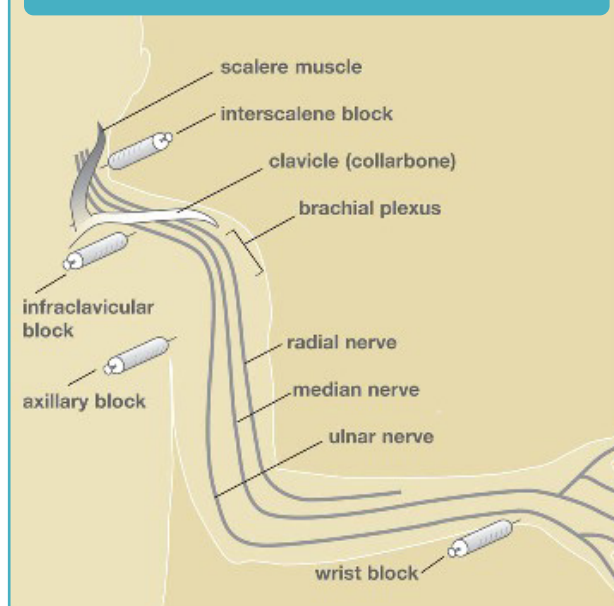
Monitored Anesthesia Care (Sedation)

This type of anesthesia helps you relax by giving medication through an IV line. The medicines often make you lose your short-term memory. You often don't remember being in surgery, even though you could be awake and talk at times during the surgery. With this type of anesthesia, you breathe on your own, so you don't need a breathing tube. This helps reduce the risk of having a sore throat. This type of anesthesia is often given by the anesthesia team in combination with local anesthetics injected by the surgeon.

Regional Anesthesia

With regional anesthesia, parts of the body are put to sleep by injecting numbing medicine through a needle placed along the path of nerves. This may be around the collarbone or neck, under the arm, at the wrist, in the palm, or around the finger. It may also be through an IV in the arm. Regional anesthesia uses numbing medications that can provide between one and 24 hours of pain relief. As with local anesthesia, relaxing medication may be

Figure 1 - Diagram of the regional blocks used to numb the nerves in the arm with anesthesia



given through an IV line. Many times, ultrasound is used to visualize blood vessels, landmarks, and nerves. Other times a nerve stimulator is used to help place the medication close to the nerves. This causes the arm or hand muscles to twitch and move, which while not painful can feel strange. To limit pain during the injection of numbing medicine with a needle, IV medication may be given to help you relax and feel comfortable. Some benefits of this type include less need for pain medicine after surgery. It has also been linked to faster recovery and less nausea. For some surgeries it is linked to less blood loss and lower risk of blood clots.

Will I be Awake During Surgery?

Some patients prefer to be awake during surgery. Others prefer to be asleep. During your surgery you can be awake or asleep, depending on what you and the treatment team decide. You will not be able to see the surgery itself because of the large sterile drape placed between you and the surgeon. This is to protect the "sterile field." The "sterile field" is the important area of your surgery, kept clean and free from germs that can cause infection.

What Are the Risks?

Some risks associated with regional or local anesthesia include pain, soreness or bruising at the needle site. Sometimes a pupil changes size, muscles that move the diaphragm may get numbed and not work, or the regional may not numb the intended area. Serious complications can also occur. These include bleeding, infection or nerve injury, but these are very rare. Your surgeon and anesthesiologist will check to make sure you are comfortable before, during and after the procedure. Do not hesitate to tell them if you are not.