Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Regional Anesthesia to Your Breast, Armpit, or Chest Wall

This information explains what regional anesthesia (REE-juh-nul A-nes-THEE-zhuh) is. It also explains what to expect during and after your regional block procedure.

Reginal anesthesia is also called a regional block.

Types of anesthesia

Anesthesia (A-nes-THEE-zhuh) is when you get medicine to block pain. It blocks pain during a surgery or procedure, after a surgery or procedure, or both. There are 3 main types of anesthesia:

- **Local anesthesia** numbs a small part of your body, such as when you get a cavity filled at the dentist. Local anesthesia is given as an injection (shot) or a cream. With local anesthesia, you may feel pressure or movement, but you should not feel sharp pain. You're awake and alert the whole time.
- **Regional anesthesia**, also known as a regional block or nerve block, numbs a larger part of your body. Regional blocks are given as an injection. You can get a regional block along with a sedative, general anesthesia, or both. A sedative is medicine to make you sleepy and relaxed.
- **General anesthesia** makes you fall asleep, so you do not feel pain or remember the surgery or procedure. General anesthesia is given through an intravenous (IV) line placed in your vein. Or, you can inhale it (breathe it in).

About regional blocks

An anesthesiologist (A-nes-THEE-zee-AH-loh-jist) is a doctor with special training in using anesthesia. On the day of your surgery, your anesthesiologist may recommend you get a regional block. A regional block is one part of your treatment plan that helps manage your pain before, during, and after surgery. It works by numbing the area where you're having surgery.

Getting a regional block may also help reduce the amount of other pain medicine you need. This helps lower your risk of side effects, such as:

- Nausea (feeling like you're going to throw up).
- Vomiting (throwing up).
- Drowsiness (feeling sleepy).
- Constipation (when you poop less often than usual, have a harder time pooping, or both).

Your anesthesiologist may recommend 1 or more of the following regional blocks. This depends on your needs, medical history, and the type of surgery you're having:

- A **thoracic paravertebral (TPVB) block** numbs the nerves in your chest area. It can help with pain in your breast or chest wall after surgery.
- A **pectoralis (PECS) block** numbs the nerves in your chest and armpit area. It can help with pain in your breast, armpit, or chest wall after surgery.
- A **serratus plane block** numbs the nerves in your chest and armpit area. It can help with pain in your breast, armpit, or chest wall after surgery.
- An **erector spinae plane (ESP) block** numbs the nerves in your chest area. It can help with pain in your breast or chest wall after surgery.

You may not be able to get a regional block if:

- You take a blood thinner (medicine that affects the way your blood clots).
- You have an infection at the site of the block.
- You're allergic to local anesthesia.

You can get a regional block if you've had surgery on your spine. Make sure to tell your anesthesiologist that you had this surgery.

What to expect during your regional block procedure

Your regional block procedure will be done in the presurgical center before your surgery. You'll be awake during the procedure.

You'll be attached to equipment that keeps track of your heart rate, breathing, and blood pressure. You'll get oxygen through a nasal cannula (a thin tube that rests below your nose).

Before your procedure starts, your care team will do a safety check to make sure everything is correct. They'll check:

- Your name.
- The type of surgery you're having.
- The type of regional block you're getting.
- The side of your body where you'll get the regional block.

Once the safety check is done, your procedure will start.

Positioning

You'll need to be in a certain position for your regional block procedure. This helps your anesthesiologist inject (give you a shot of) the regional block medicine in the right area. A member of your care team will help you get into the right position.

The place where your anesthesiologist will inject the regional block medicine is called the target area.

- **If you're getting a TPVB block:** Your anesthesiologist will inject the medicine into a target area on your back, near your spine.
- **If you're getting a PECS block, serratus plane block, or ESP block:** Your anesthesiologist will inject the medicine into a target area on the front, side, or back of your chest.

The target area will be on the side of your body where you're having surgery. Depending on where it is, you may be:

- Lying on your stomach, with 1 of your arms gently hanging off your hospital bed.
- Sitting up, with your head down and your chin to your chest.
- Lying on your side, with your arm draped across your body.
- Lying on your back.

Injecting the regional block medicine

Once you're in the right position, your anesthesiologist will give you a sedative through your IV line. The sedative will help you relax and feel comfortable. You may start to feel sleepy.

Next, they'll inject local anesthesia to numb the skin at the target area. You may feel some burning or stinging. This is normal.

Your anesthesiologist will then put the needle for your regional block into the target area. They'll use an ultrasound scan to watch the needle and make sure

it's in the right place. Once the needle is in the right place, they'll inject the regional block medicine. You may feel some pressure in your back or chest during the injection. This is normal and will stop once the injection is done.

You may be having surgery on both breasts, both armpits, or both sides of your chest wall. If so, your anesthesiologist will do the procedure on 1 side of your back or chest first. Then, they'll repeat it on the other side of your back or chest.

The procedure takes about 15 minutes. It may take a little longer if it's done on both sides of your body.

What to expect after your regional block procedure

After your regional block procedure, you'll get general anesthesia and will be asleep for your surgery.

A regional block can last for about 12 to 18 hours.

Risks of regional blocks to your breast, armpit, or chest wall

There are some risks to getting a regional block for your breast, armpit, or chest wall, such as:

- Bleeding from the injection site.
- Getting an infection.
- The block not working.

Regional bocks can also have other, more serious (very bad) risks. These serious risks are very rare. They include:

- Your nerves being irritated or injured.
- The regional block medicine being injected too close to your spinal cord. If this happens, you'll feel numb from the chest down. The numbness will go away with time.

- The regional block medicine being injected into a blood vessel. If this happens, you may have symptoms, such as:
  - Low blood pressure.
  - Seizures (shaking or stiffening of your body that you cannot control).
  - An abnormal (not normal) heartbeat. Your heart may beat too fast, too slow, or in an irregular pattern.
- The needle going into your chest cavity, which may cause air to enter your chest. This is called a pneumothorax (NOO-moh-THOR-ax). If this happens, you may need a small tube placed in your chest to remove the air.

If any of these things happen, your anesthesiologist and care team will manage and treat them.

Contact information

If you have any questions or concerns about regional blocks, call a member of your care team at 646-888-7067. You can reach them Monday through Friday, from 8:30 a.m. to 4:30 p.m. After 4:30 p.m., during the weekend, or on a holiday, call 212-639-2000. Ask to speak to the anesthesia provider on call.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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