Thoracic Paravertebral Blocks

This information explains thoracic paravertebral blocks (TPVBs) and what to expect if you have one.

Types of Anesthesia

TPVBs are a type of regional anesthesia. There are different types of anesthesia, including local, regional, and general.

- 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 and you are awake and alert the entire time.

- Regional anesthesia, also known as a regional block, numbs a larger part of your body. You can have a regional block with general anesthesia (see information below) or with a sedative (medication that relaxes you).

- General anesthesia makes you unconscious during your procedure. It can be given intravenously (through a vein) or you can inhale (breathe in) the medication.

Your anesthesiologist may recommend a regional block depending on your needs, medical history, and the type of surgery you will be having. Your anesthesiologist will choose the regional block that is best for you.

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TPVBs are used to help with pain after surgery in the breast or chest wall. In a TPVB, your anesthesiologist will inject the medication into your back, around the level of your chest. This will numb the nerves in your chest area. This will be done before your surgery, while you are awake. After your TPVB, you will still receive general anesthesia and will be asleep for your surgery.

A TPVB can last up to 18 hours. Studies have shown that people who have TPVBs
take fewer pain medications and may have less nausea and vomiting after surgery.

You may not be able to have a TPVB if you are taking blood thinners, have an infection at the site of the block, or if you are allergic to local anesthesia. You can have a TPVB if you’ve had surgery on your spine, but tell your anesthesiologist that you had this surgery.

During Your TPVB Placement Procedure

Your procedure will take place in the pre-surgical center. Your healthcare team will help position you for the procedure. You will be lying on your stomach with one of your arms gently hanging off your bed.

You will be attached to equipment to monitor your heart rate, breathing, and blood pressure. You will receive oxygen through a thin tube that rests below your nose called a nasal cannula. Your anesthesiologist and nurse will ask you to state your name, date of birth, and procedure being performed. This is for your safety.

You will get an injection of a sedative into your intravenous (IV) catheter that you have in your arm. You may start to feel sleepy and fall asleep.

Your anesthesiologist will inject local anesthesia to numb the target area. He or she will use ultrasound to make sure that the needle for your TPVB is in the right place. Then, the regional block will be injected in your back. You may feel some pressure in your back or chest during the injection. This is normal and will stop once the injection is complete.

If you are having a bilateral mastectomy, your anesthesiologist will repeat the same process on the other side of your back.

This procedure takes about 30 to 45 minutes, depending on if you are having it on one or both sides.

Risks of TPVBs

There are some risks to having a TPVB. These include bleeding, getting an infection, having the block not work, and having the medication be injected into
a blood vessel. If the medication is injected into a blood vessel, you may have symptoms such as low blood pressure, seizure, or abnormal heart rhythms. These will be treated by your anesthesiologist.

More serious but rare risks include:

- Injection of the anesthesia into your epidural or spinal space. If this happens, you will be numb from the chest down. This will wear off and your healthcare team will provide treatment for this, if needed.
- Irritating or injuring your nerve(s).
- Too much anesthesia entering into your bloodstream. Symptoms of this include low blood pressure, seizure, or abnormal heart rhythms. This can be treated by your anesthesiologist.
- The needle entering your chest cavity which may cause air to enter your chest. This is called a pneumothorax. You may need to have a small chest tube placed to remove the air.

Contact Information

If you have any questions or concerns about the thoracic paravertebral block, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at 646-888-7067. After 5:00 PM on weekdays and on Saturdays, call 212-639-2000 and ask to speak to Josie Robertson Surgery Center anesthesia provider on call.

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