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Patient Information on INTERCOSTAL NERVE BLOCK

What is an intercostal block?

An intercostal block is the injection of a local anesthetic (like Novocaine) in the area between two ribs where the intercostal nerve is located. An intercostal block is performed for the diagnosis and treatment of upper back, flank, or chest pain that may be neuropathic (nerve) or somatic (muscle, bone) in origin. Temporarily blocking or disrupting painful nerve impulses associated with neuropathic pain can result in various degrees of permanent relief. If, after following a single block, the patient achieves partial permanent relief, a series of several blocks, followed by a neurolytic block by cryoablation, radiofrequency ablation, or chemical neurolysis, can be performed.

GENERAL PRE-PROCEDURE INSTRUCTIONS

DO NOT have any food, beverages, coffee, juices or water (except a sip of water for routine medications only) FOR 6 HOURS before the procedure appointment.

- Take blood pressure medications, etc. on routine schedule.
- Hold diabetes medications on the morning of the procedure.
- You may take your regular narcotic pain medicine as needed before/after the procedure.

BRING A RESPONSIBLE ADULT TO DRIVE YOU HOME. Do not plan to drive home after the injection.

If you are on coumadin (Warfarin), heparin, lovenox, plavix, or ticlid, you must notify our office as soon as possible, prior to the procedure, so that the timing of stopping these medicines can be explained. If medications are not stopped for the recommended period of time, the procedure may need to be rescheduled.

FOLLOW THE INSTRUCTIONS FOR BLOOD THINNING MEDICATIONS IF YOU ARE TAKING THEM.

If you are on antibiotics, please notify our office. We may postpone the procedure until you have finished the medicine. If you have an active infection or fever, we will not perform the procedure.

If you are a woman of childbearing age and you know or suspect that you may be pregnant, we will not perform the procedure.

You will be in the hospital for about an hour, even though you may see the physician for only 20 to 30 minutes. You may return to your current level of activities, including work, the next day.

If you wish to be sedated for your procedure, please let our scheduler know when you make your appointment. Your visit will be longer if you request sedation.



The procedure may not be performed if the instructions above are not followed.

What is actually injected?

The injection consists of a local anesthetic (like lidocaine or bupivacaine), possibly with a steroid ("cortisone"). Epinephrine (adrenaline) may be added to prolong the effects of the injection. A small amount of contrast (dye) is injected to insure proper needle position.

Will the injection hurt?

The procedure involves inserting a needle through skin and deeper tissues. There may be some discomfort involved. However, we numb the skin and deeper tissues with a local anesthetic using a very thin needle before inserting the actual block needle.

Will I be put out for this procedure?

No. This procedure is done under local anesthesia. It makes the procedure easy to tolerate.

What happens during the procedure?

An IV will be started so that relaxation medication can be given. The patients are monitored with EKG, blood pressure cuff and a blood oxygen-monitoring device. The skin is scrubbed using antiseptic solution. Next, the physician numbs a small area of skin with numbing medicine. This medicine stings for several seconds. Then the physician directs a small needle, using x-ray guidance, to the area of the intercostal nerves. Then, a small mixture of numbing medicine (anesthetic), normal saline and anti-inflammatory (cortisone/steroid) is injected.

The procedure will take up to 30-60 minutes, depending on how many levels need to be blocked. A nurse will monitor the blood pressure and pulse. Band-Aids will be placed at the injection sites

What happens after the procedure?

You will be observed to check your blood pressure and pulse. The nurse will ask you how much pain is relieved and give you discharge instructions.

A responsible adult must drive you home.

Patients are then asked to report the percentage of pain relief and record the relief experienced during the next week on a post injection evaluation sheet (pain diary). This will be given to the patient when they are discharged home.

You may experience some soreness and discomfort in the area of the injection and surrounding muscles. This may last several days. It may be helpful to apply an ice pack 3-4 times a day for 20 minutes each time.



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What should I NOT do after the procedure?

- Do not drive for 8 hours or operate machinery for at least 24 hours after the procedure.
- Do not engage in any strenuous activity for 24 hours.

You may shower or bathe without restriction. You may remove any bandages in the evening before going to bed.

What should I expect after the intercostal nerve block?

Immediately after the injection, you may feel that your pain may be gone or quite less. This is due to the local anesthetic injected. This will last for only a few hours. Your pain may return and you may have a sore spot for a day or two. This is due to the mechanical process of needle insertion as well as initial irritation from the steroid itself. You should start noticing more lasting pain relief starting the third day or so.

Can I go to work the next day?

Unless there are complications, you should be able to return to work the next day. The most common thing you may feel is a sore spot at the injection site.

How long does the effect of the medication last?

The immediate effect is usually from the local anesthetic injected. This wears off in a few hours. The steroid starts working in about 3 to 5 days and its effect can last for several days to a few months or longer.

How many intercostal nerve blocks do I need to have?

It varies. If you respond to the injections, additional injections may be recommended when the symptoms return.

How many intercostal nerves can be blocked at once?

Many times, only one nerve is blocked, especially if the symptoms appear to be related to an easily identified nerve. Other times, several nerves are blocked, often three levels. In this case, the worst nerve is blocked and then one nerve is done above and one nerve is done below.

Will the intercostal nerve blocks help me?

It is difficult to predict if the injection will help you or not. The patients who have recent onset of pain may respond much better than the ones with a longstanding pain. Usually the first injection is as much a test as it is a treatment. The first block will confirm that the intercostal nerves are involved in the pain and be helpful. Or the blocks will not help and the intercostal nerves will not be suspected as part of the pain.



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What are the risks and side effects of intercostal nerve blocks?

Generally speaking, this procedure is safe. However, with any procedure there are risks, side effects and the possibility of complications. The most common side effect is temporary pain at the injection site. Other uncommon risks involve infection, bruising, bleeding, worsening of symptoms etc. Fortunately, serious side effects and complications are uncommon. One serious side effect is a collapsed lung. This is rare, but since the needles are in close proximity to the lung, such a side effect is possible.

How would I know if I had a collapsed lung?

Because of the size of the needle used, a lung usually does not collapse quickly. It may take several hours or the better part of the day. If after the block, a patient feels winded or cannot seem to catch their breath or gasps for air, a collapsed lung should be suspected. Prompt transportation to the nearest Emergency Room and a chest x-ray can confirm the suspicion of a collapsed lung.

Who should not have an intercostal block?

If you are allergic to any of the medications to be injected, if you are on a blood thinning medication, if you have an active infection, or if you have poorly controlled diabetes or heart disease, you should not have an intercostal nerve block- or at least consider postponing it if postponing would improve your overall medical condition. Likewise, if you have very poor lung function and would have great difficulty with a collapsed lung, an intercostal block may not be the treatment of choice.

When should I call for help?

If you experience fever or chills, contact your health care provider.

When should I go to the emergency room?

Emergency services are available at Plan hospital emergency departments 24 hours a day, 7 days a week. If you think you have an emergency medical condition and you can not safely go to a Plan hospital, call 911 or go to the nearest hospital. Have someone take you to the nearest emergency room immediately if you experience either of the following:

- Severe pain and/or swelling.
- Shortness of breath.

Place of Procedure:

The intercostal blocks will be performed at the Kaiser Permanente San Jose Pain Procedures Suite. Please report to Interventional Services pre & post procedure department, Room 114, which is located on the 1st floor of the main hospital, 250 Hospital Parkway, San Jose, CA 95119.