

Pectus Bar Surgery

Your surgery and recovery at home

This booklet belongs to: _____

We also give you '**Preparing for Your Surgery**' booklet.

Read both booklets carefully.

Bring both booklets to every hospital visit before your surgery.

Pectus Bar Surgery

You are having surgery (an operation) to correct a condition known as pectus excavatum, which is a sunken breastbone and ribs, or pectus carinatum, an outward breastbone. The most common reason for this repair is to improve the appearance of the chest.

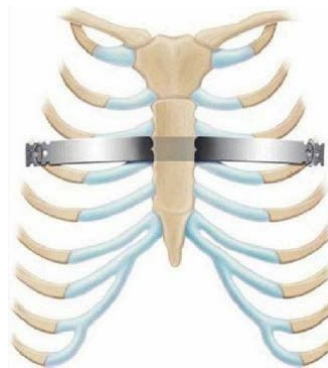
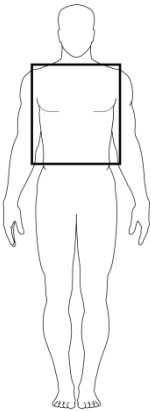
Sometimes the deformity is so severe that it causes chest pain and affects breathing, largely in adults.

Surgery is mostly done on children who are 12 to 16 years old, but not before age 6. It can also be done on young adults in their early 20s.

This is a minimally invasive surgery done under general anesthetic. During the surgery, your surgeon makes two small cuts, one on each side of the chest. A small video camera called a thoracoscope is placed through one of the incisions. This allows the surgeon to view inside the chest.

A curved steel bar, or bars, that have been shaped to fit you, is inserted through the incisions and placed under the breastbone. The purpose of the bar is to lift the breastbone. The bar is left in place for at least 2 years and helps the breastbone grow properly.

At the end of surgery, the scope is removed and the incisions closed.



Read '**Preparing for Your Surgery**' booklet for instructions on how to prepare for your surgery.

You will have 2 to 4 small cuts, one on either side of your chest, under your armpit. You may have tubes in your chest around the surgical cuts. These tubes drain extra air or fluid that collects from the procedure. The tubes will remain in place until they stop draining, usually after a few days. The tubes are then removed.

Path to Home Guide

This gives you an example of a person's recovery in hospital after surgery.

Category	After Surgery			
	Surgery Day	Day 1	Day 2 to 3	Day 4 to home
Nutrition	Diet as tolerated	Diet as tolerated	Diet as tolerated	Diet as tolerated
Activity	Sit up at the side of the bed Leg exercises	Up in chair for meals Walk 2 or more times Leg exercises	Up in chair for meals Walk 3 or more times Leg exercises	Walk 4 or more times Leg exercises Getting ready to go home
Deep Breathing Exercises	10 times every hour	10 times every hour	10 times every hour	10 times every hour
Pain Control	Medicine by epidural or intravenous (*PCA) Pain at a level comfortable for you	Medicine by epidural or intravenous (PCA) Pain at a level comfortable for you	Medicine by epidural or intravenous (PCA) Medicine in pill or liquid form Pain at a level comfortable for you	Medicine in pill or liquid form Pain at a level comfortable for you
Tubes and lines	Intravenous Chest tube Urinary catheter	Intravenous Chest tube Urinary catheter	Intravenous Chest tube removed Urinary catheter taken out	

* PCA - Patient Controlled Analgesia is a pump connected to your intravenous that lets you give yourself pain medicine when you need it

After Your Surgery

In the first few days following surgery, it is very common to have pain. You will receive pain medication through an epidural (into the spine) or IV PCA (intravenous). The more you walk after surgery, the faster you will heal, and the better the pain gets. You will work with the nurses and physiotherapist to learn to how to transfer and mobilize safely. Slowly increasing your activity will also minimize your risk for other post-operative complications, such as constipation, pneumonia and blood clots.

The length of your hospital stay will depend on how well your pain is managed, and how well you are mobilizing. Most patients will go home on post-operative day 5 to 7. The pain medicine through the epidural or PCA will be slowly decreased over the next few days, as your pain becomes more controlled with pain pills.

A side effect of narcotic (opiate) pain medications is constipation. Constipation can be worsened with decreased activity. You will be given medications to prevent constipation. It is also important to drink lots of fluids and be active while in hospital.

You will be encouraged to do a lot of deep breathing exercises while you are in hospital, to prevent pneumonia. This will be very uncomfortable at first, but the more you practice, the more the muscles around your ribs will start to relax, and the pain will improve. You can hug a pillow to splint the ribs to help with the pain.

You may shower once all your lines and tubes have been removed. Your nurse can help you with this, if needed

You are ready to go when:

- ✓ Your pain is controlled with medications by mouth.
- ✓ You are passing gas and have moved your bowels (pooped).
- ✓ Your incision is healing.
- ✓ You are able to walk without help.

Caring for Yourself at Home

Managing pain

You will continue to have some pain when you go home. Your surgeon will give you instructions to take pain medicine. This might include a prescription for an opioid (narcotic).

For the first few days:

If your pain is at an uncomfortable level, take your pain medicine as directed. As your pain improves, take your pain medicine less often and/or a smaller amount until you have little or no pain, then stop. For the first few days after returning home, take stronger pain medication before bed, so that you have comfortable sleep.

After a short time and as your pain improves, a non-prescription pain medicine should be enough to manage your pain.

Non-prescription pain medicines (also called 'over-the-counter' medicines) are ones you can buy at the pharmacy without a prescription. You might only need to take this type of medicine if you don't have much pain after surgery.

Examples of non-prescription medicines (and brand names):

- acetaminophen (Tylenol®)
- ibuprofen (Advil®, Motrin®) ★
- naproxen (Naprosyn, Aleve®) ★

Note: ★ These non-prescription medicines are called **non-steroidal anti-inflammatory** (NSAIDs).

NSAIDs are not for everyone after surgery. If you have (or have had) health problems such as stomach ulcers, kidney disease, or a heart condition, check with your surgeon or family practitioner before using NSAIDs.



Questions about medicines?

Call your local pharmacy and ask to speak to the pharmacist.

For after-hours help, call 8-1-1. Ask to speak to a pharmacist.

Family Practitioner:

Refers to either a family doctor or nurse practitioner

Remember

You can do other things to help ease your pain or distract you from the pain:

- ✓ Slow breathing
- ✓ Listen to music
- ✓ Watch T.V.

Opioid (narcotic) pain medications are only meant to be taken for a short time, if needed, to manage pain after surgery.

Do not drive or drink alcohol if you are taking opioid medications.

Examples of opioids:

- Tramacet® (tramadol and acetaminophen) ★
- Tylenol #3® (codeine and acetaminophen) ★
- Oxycocet® / Percocet® (oxycodone and acetaminophen) ★
- tramadol, hydromorphone, morphine, oxycodone

Note: ★ These medications also have 300 to 325mg acetaminophen in each tablet. It is important to know because you should not take more than 4000mg of acetaminophen in a day from all sources (too much can harm your liver).

Always read the label and/or information from the pharmacist for how to safely take medication.



Keeping your bowels regular

Constipation can happen because you are taking opioid pain medication, are less active, or eating less fibre.

To prevent constipation:

- Drink at least 6 to 8 glasses of liquid each day (unless you have been told differently because of a medical condition).
- Gradually add fibre to your diet.
- Increase your activity.
- Take recommended stool softeners (purchased over the counter).
 - Docusate 100mg twice daily

To treat mild constipation:

- Take recommended laxatives (purchased over the counter).
 - Sennosides 24 mg once daily (at night)
 - Bisacodyl 10 mg once daily (at night)
 - Polyethylene glycol 17 g once or twice daily

If you continue to be constipated, talk with a pharmacist or family practitioner.

Drinking and eating

You can resume your regular diet after surgery.

Being active

Once you return home, it is important to slowly increase how much you do each day (your activity level). Increase the distance and time you walk. Only increase your activity level as much as you comfortably can.

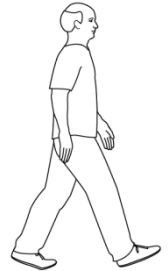
If you are still having pain, go for your walk 30 minutes after you have taken your pain medication.

After this type of surgery, there are several activity restrictions:

- ✖ **Do not** drive for 6 weeks.
- ✖ **Do not** lift, push, or pull anything over 4 to 5 kilograms (10 pounds). This includes carrying children and groceries.
- ✖ **Do not** flex or twist at the waist for 4 weeks.
- ✖ **Do not** slouch or slump when sitting and standing. Maintain good posture.
- ✖ **Do not** sleep on your side or stomach for 4 weeks. People often say that sleeping in a recliner chair is more comfortable if available.
- ✖ **Do not** carry backpacks or satchels on your shoulders for 3 months.
- ✖ **Do not** work out at a gym. This includes aerobics, pilates, yoga, biking, running, swimming, elliptical machines, and sit ups.
- ✖ **Do not** play any sports, do high intensity exercise, or weight training.
- ✖ **Do not** drive for 6 weeks.

Usually, you can return to **driving** when you can shoulder check and comfortably wear your seatbelt. If you are not sure about it, ask your surgeon.

Remember: Do not drive when you are taking opioid pain medication.



A 4 litre milk jug weighs 4 kg (9 pounds)





Caring for your incisions

Always wash your hands before and after touching around your incision sites.

If you have white skin tapes (steri-strips) over your incision(s), they will slowly start to peel over the next few days. You can trim loose edges with scissors. After being home for a week, you can remove them completely. It is easiest to remove steri-strips after taking a shower.

If you had chest tubes after surgery, there may be a stitch to help seal the hole. The stitch can be removed by your family practitioner one week after being discharged from the hospital.

Showering:

- You can shower once you return home.
- Continue to take only showers for at least 2 weeks after your surgery.
- Try not to let the shower spray directly on your incision(s) or bandage if still covered. Gently pat the area dry.



Getting rest

It is very common in the first few weeks to feel tired and have low energy. Rest and sleep help you heal.

Try to get at least 8 hours of sleep each night. Take rest breaks and naps during the day, as needed.

If you have trouble sleeping, talk to your family practitioner.



When to get help

Call your surgeon or family practitioner if:

- You have trouble swallowing.
- You are throwing up or not able to keep fluids down.
- You have problems with bowel movements.
 - Not passing gas for 2 days, or no bowel movement since your surgery and home for 2 to 3 days
 - Diarrhea that is severe **or** continues for more than 2 days
 - Bright red blood in your stool
- You have a fever over 38°C (101°F).
- Your incision is warm, red, swollen, or has blood or pus (yellow/green fluid) draining from it.
- You have a cough that continues to get worse.
- You notice stinging, burning, or pain when you urinate (go pee).
- You have redness, tenderness, or pain in your calf or lower leg.
- Your pain does not ease with pain medicine, or stops you from moving and recovering.
- You feel increasingly tired or dizzy.

Cannot contact the surgeon or family practitioner?

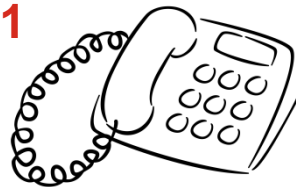
Have any questions about your recovery?

Call **8-1-1** (HealthLinkBC) to speak to a registered nurse any time - day or night.

Call 9-1-1 if you have any of the following:

- trouble breathing or shortness of breath
- chest pain
- sudden, severe pain

9-1-1



Available in 130 languages.

For an interpreter, say your language in English. Wait until an interpreter comes on the phone.

Questions you might have:

Examples: 'When will I be able to return to my regular activities?' 'When can I return to school or work?'

Safety

It is recommended that you purchase a medic alert bracelet. The inscription should read:

Steel bar in chest, forceful CPR, cardioversion ant/post placement.

CPR can be performed in an emergency, however extra force will be needed. No MRI's of the chest and thorax. CT scans are safe.

Managing moods and emotions

After major surgery, it is quite common to have a low mood or changeable mood at times. If you find your mood is staying low or is getting worse, contact your family practitioner.

Milestones after Surgery

Week 2 -3

You may return to school or work as long as you are not taking your narcotic pain medicine or your muscle relaxant.

You may be able to feel or see the bar, now that swelling has reduced.

Your stitches may be falling out of your incisions. This is normal and nothing to worry about. You may snip the stitch at the skin level and the rest will be absorbed by your skin.

Be sure to make a follow up appointment with your surgeon.

Week 4

You may sleep on your side.

You may flex or twist at the waist.

Week 6

You may drive.

We highly recommend you begin cardiovascular conditioning such as running, swimming, biking, pilates, or yoga.

Week 8

We recommend you begin light upper body weight training (no more than 2- 5 lbs)

3 Months

You can carry a backpack.

You may return to contact sports such as basketball, soccer, baseball, etc.

6 Months

You are restriction free, except for the following activities (which may cause the bar to shift):

- Football
- Martial arts
- Wrestling



Appointments after surgery

Arrange to see your surgeon approximately 3 weeks after you are discharged from the hospital.

I have an appointment with: _____
(surgeon or family practitioner)

My appointment is on: _____

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This information does not replace the advice given to you by your healthcare provider.

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To order: patienteduc.fraserhealth.ca

