

Pectus Bar Surgery

Surrey Memorial Hospital

Your surgery and recovery at home

This booklet belongs to: _____

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

Read both booklets carefully.

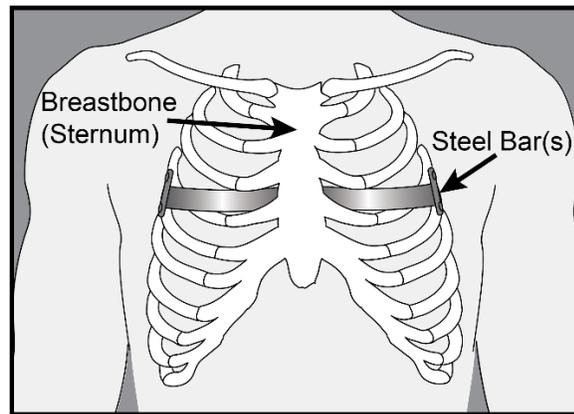
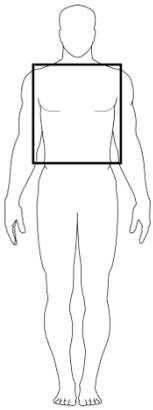
Bring both booklets to every hospital visit before your surgery.

Pectus Bar Surgery

You are having surgery (an operation) to place a steel bar in your chest. This is called a pectus bar surgery. You might hear us call this surgery the *Nuss Procedure*, or *Minimally Invasive Pectus Repair*.

This surgery is usually done for a condition called pectus excavatum (sounds like *pek-tus ex-ka-vay-tum*). Pectus excavatum is an indent in the chest area because of a sunken breastbone or ribs.

This condition can change the appearance of your chest, give you chest pain, or make it hard for you to breathe. The steel bar in your chest repositions your breastbone (your sternum) into the right place.



Your surgeon makes two small cuts in your chest. Through one of these incisions, the surgeon inserts a tiny camera (a thoroscope) so the area can be viewed on a video monitor.

One or two curved steel bars put into your chest through the incisions, under your breastbone. The bar(s) stays in place for at least 2 years. You will have surgery again to have the bar(s) taken out.

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

After Your Surgery

Your Hospital Stay

Nutrition

You can return to your normal diet after surgery. The medicine we give you during surgery might make you feel sick to your stomach or throw up. This should not last long.

Activity

The nurses and physiotherapists work with you to increase your activity. You learn how to move safely and how to do exercises. Activity and exercises help keep you from getting blood clots and infections.

Deep Breathing Exercises

We teach you how to do deep breathing exercises to prevent lung infection. This might be uncomfortable at first. With practice, the muscles around your ribs will relax. You can also hug a pillow to support your ribs during breathing and to help with the pain.

Pain Control

It is normal to have pain after your surgery. We might give you different types of pain medicines, including pills, liquids, intravenous PCA (patient controlled analgesia), or an epidural.

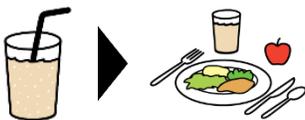
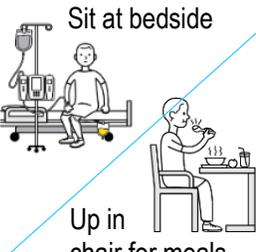
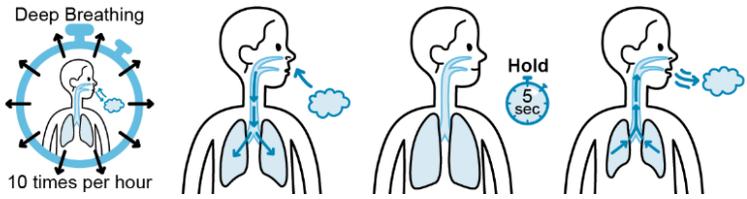
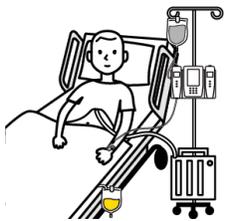
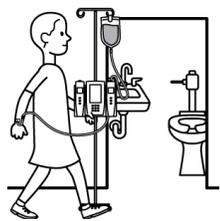
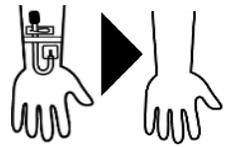
- PCA is a pump connected to your intravenous that lets you give yourself pain medicine when you need it.
- An epidural is a catheter placed in your back during surgery. It gives continued pain relief by numbing the nerves of the surgery area as long as the pump is running.

Tubes and Lines

You might have an intravenous, chest tube(s), and urinary catheter after surgery. Chest tubes drain the air and fluids that collect in your chest from your surgery. Your tubes and lines are removed as you start to get better.

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	 <p>Full fluids to regular diet</p>			
Activity	 <p>Sit at bedside Up in chair for meals</p>	 <p>Walk 2 or more times</p>	 <p>3 or more times</p>	
	<p>Leg exercises every day</p> 			
Deep Breathing Exercises	<p>Every day</p>  <p>Deep Breathing 10 times per hour</p> <p>Hold 5 sec</p>			
Pain Control	 <p>PCA pump or epidural</p>		 <p>Liquid or pills</p>	
Pain at a level comfortable for you				
Tubes and lines	<p>Intravenous Chest tube Urinary catheter</p> 		 <p>Intravenous capped and taken out</p>	

Going home

How long you stay in the hospital depends on:

- your health before surgery
- the type of surgery
- how you recover from the surgery

Most people can go home 5 to 7 days after surgery.

You are ready to go when:

- ✓ Your bowels are working.
- ✓ Your incisions are healing.
- ✓ Your pain is controlled with medications taken by mouth.
- ✓ You know what medications (including new ones) you are taking, how to take them, and why you need them.
- ✓ You have prescription(s) for your medications, if needed.
- ✓ You have a ride home from the hospital.
- ✓ You have arranged for some help at home for the first few days.



Caring for Yourself at Home

Managing pain

It is normal to have some discomfort or pain when you return home. This should steadily improve over the next few weeks. It might take months before your pain is gone completely.

Your pain should be at a comfortable level that allows you to move, deep breathe, cough, and to do every day activities. It is especially important to have good pain control at night, so that you have a restful sleep.

When you are ready to go home, your surgeon will give you instructions to take pain medicine. This might include a prescription for an opioid (narcotic).



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.

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.

At first, you might have to take a prescription medication. 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) – You buy them 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®)
- acetylsalicylic acid or ASA (Aspirin®)
- non-steroidal anti-inflammatory drugs (NSAIDs)

Examples: ibuprofen (Advil®, Motrin®) ★
 naproxen (Naprosyn, Aleve®) ★

★ **Note:** **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.

Family Practitioner:

Refers to either a family doctor or nurse practitioner

Opioid (narcotic) pain medicines – You might get a small number of pills for severe pain.

They are only meant to be taken for a short time. Take only as much as you need to allow you to do daily activities.

Examples of opioid pain medicines:

- 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. All total, **do not** take more than 4000mg of acetaminophen in 24 hours (too much can harm your liver).

When taking non-prescription pain medicines as well, most people need to take a lower amount of the opioid or take the opioid less often

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.

Safe use of opioid pain medicines

If you are using any medicines with opioids (narcotics) in them, we want you to do so safely. However, serious problems can happen. Take note of the following safety information.

Before taking opioids:

- Tell your surgeon if you have sleep apnea. Opioids can make your sleep apnea worse.

Safely storing opioids:

- Store opioid medicines in a secure place.
- Keep out of sight and out of reach of children, teens, and pets.
- Never share your opioid medicine with anyone else.

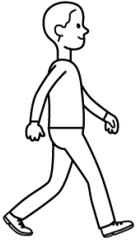
Safely disposing of unused opioids:

- Take any unused opioid medicines back to your pharmacy to be safely disposed.
Do not keep unused medicines at home.

Safely taking opioids:

- Your pain should lessen over the first week. You should not need to take opioid pain medicine for more than 1 week.
- Always use the least amount possible for the shortest amount of time.
- Common side effects include constipation, feeling sick to your stomach (nausea), a dry mouth, sweating, dizziness, and feeling drowsy.
- **Do not** crush, cut, break, chew, or dissolve opioids before taking. Doing this could cause serious harm, even death.
- While taking opioid pain medicines:
Do not drive or drink alcohol.
Do not take any sleeping pills unless your doctor has said you can.

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



Being active

It is important to get up and get moving as soon as you are able.

To keep the bar from moving out of place, you need to not bend or twist at your waist. Before you leave the hospital, we show you how to sit up by bending at your hips instead of your waist, and swivel to the edge of your bed without twisting.

Walk around as much as you can. 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, exercise 30 minutes after you have taken your pain medicine.

For the next 2 months:

- Keep good posture.
- Do not lift, push, or pull anything (if you do, the bar could move out of place).

For the next 6 months, gradually return to your normal activities.

What I can do	When I can start
<ul style="list-style-type: none"> ▪ Keep good posture. Sit up straight - no slouching or slumping. ▪ Walk. 	Right away
<ul style="list-style-type: none"> ▪ Go to school or work if I am not taking any narcotic pain medicine or muscle relaxants. 	in 2 weeks
<ul style="list-style-type: none"> ▪ Sleep on my side or stomach. ▪ Flex or twist at my waist. 	in 4 weeks
<ul style="list-style-type: none"> ▪ Drive if I can shoulder check safely and comfortably wear my seatbelt. ▪ Start doing some exercises such as running, swimming, biking, Pilates, or yoga. 	in 6 weeks
<ul style="list-style-type: none"> ▪ Start upper body exercises such as weight training, lifting less than 1 to 2.5 kilograms (2 to 5 pounds). 	in 8 weeks
<ul style="list-style-type: none"> ▪ Carry a backpack or satchel on my shoulders. ▪ Play contact sports such as basketball, soccer, or baseball. 	in 3 months
<ul style="list-style-type: none"> ▪ Do any exercise or activity except football, martial arts, or wrestling. 	in 6 months



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

If you are not sure if you can do an activity, ask your surgeon.

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





Caring for your incisions

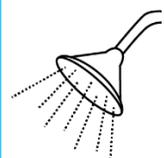
Always wash your hands before and after touching around your incision sites.

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 might be 1 or 2 stitches to help close the hole. You might want to cover these with a bandage to keep them from catching on your clothes.

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.



For at least the next 2 weeks or until the incisions are healed:

- ✗ No soaking in a bath tub or hot tub.
- ✗ No swimming.
- ✗ No creams, lotions, or ointments on your incision, unless directed by your surgeon.

Doing any of these things could increase your risk of developing an infection or delay healing.

When the swelling goes down, you might be able to feel or see the bar.

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.

Keeping your bowels regular

Return to your normal diet when you get home. You can get constipated because you are taking opioid pain medication, are less active, or eating less fibre.

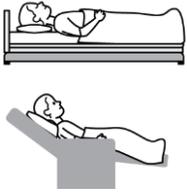


To prevent constipation:

- Drink at least 6 to 8 glasses of liquid each day (unless you have been told differently because of a medical condition).
- Add high fibre foods to your diet such as bran, prunes, whole grains, fresh vegetables, and fresh fruit.
- Increase your activity.

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

Getting rest



For the first 4 weeks, you cannot sleep on your side or stomach. This is to make sure the bar does not move out of place. If you are uncomfortable sleeping flat on your back, you might find it helpful to sleep in a recliner, or prop pillows under your mattress so you are lying in a raised position.

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.

Safety

For the time that you have steel bar(s) in your chest, you need to wear a medic alert bracelet. This bracelet lets people know you have a steel bar in your chest and what they can do for you in an emergency.

You can buy a medic alert bracelet online or at your local medical equipment store. The bracelet needs to read:



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

During an emergency, you can be given CPR (mouth to mouth and chest compressions). Extra force will be needed to effectively compress your chest.

While you have steel bar(s) in your chest, you can have x-rays and computerized tomography (CT) scans. You cannot have magnetic resonance imaging (MRI) tests.

When to get help

Call your surgeon or family practitioner if any of these things happen:

- 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 Fraser Health Virtual Care, 10:00 a.m. to 10:00 p.m., daily **1-800-314-0999**
fraserhealth.ca/virtualcare
- 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



HealthLinkBC is available in 130 languages.

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

Appointments after surgery

Make an appointment to have your sutures (stitches) taken out 7 days after you get home.

I have an appointment with: _____
family practitioner

My appointment is on: _____

Make an appointment to see your surgeon in about 3 weeks after going home.

My appointment is on: _____

Questions you might have:

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

www.fraserhealth.ca

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

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To order: patienteduc.fraserhealth.ca

