

Liver Surgery

Your surgery and recovery at home

This booklet belongs to: _____

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

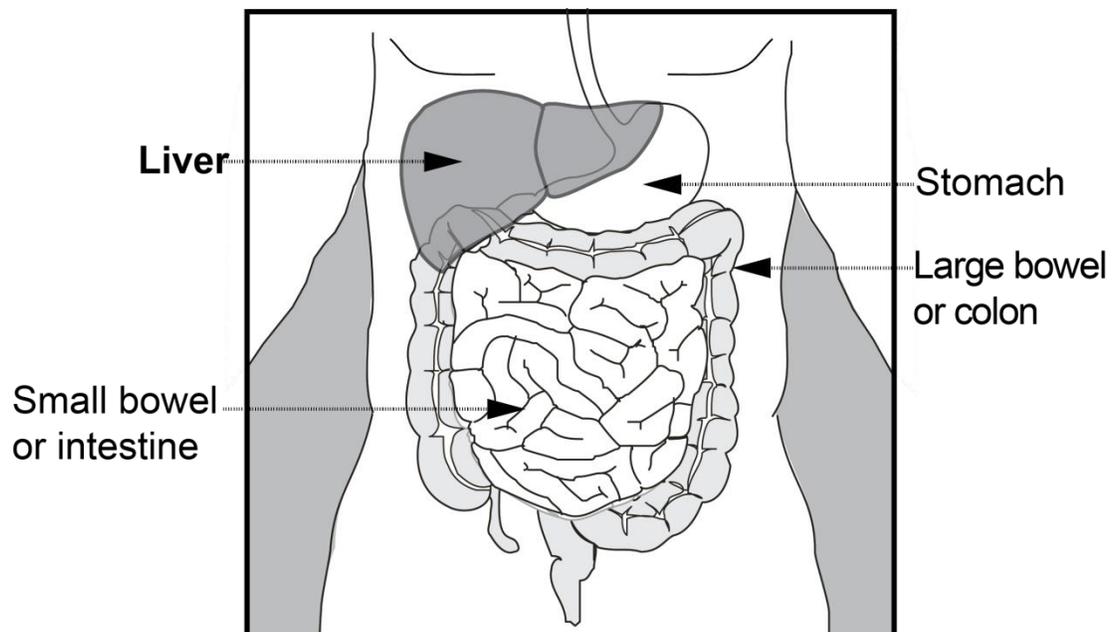
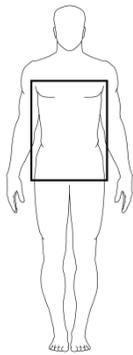
Read both booklets carefully.

Bring both booklets to every hospital visit before your surgery.

Liver Surgery

The liver does a number of things to keep you healthy:

- ✓ It changes sugar into energy.
- ✓ It helps digest fat.
- ✓ It stores and filters blood.
- ✓ It helps get rid of waste from your blood.
- ✓ It helps your blood clot.



You are having surgery (an operation) on your liver to remove (resect) a growth or tumor. This surgery is also called a 'Liver Resection'.

How much liver is removed depends on the size and location of the growth. Because the liver (if healthy) can grow back to its normal size, a large part can be removed. It can take a few weeks for your liver function to return to normal.

Your surgery can be done one of two ways:

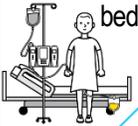
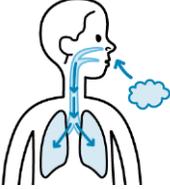
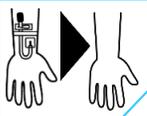
1. **Open incision** ('open'): The surgeon makes one long cut through the skin (an incision) and does the surgery through that opening. You will have an incision 10 to 20 centimetres (4 to 8 inches) long in your abdomen. This surgery usually takes about 2 to 3 hours.
2. **Laparoscopy** ('lap'): The surgeon makes 4 to 6 small cuts in your abdomen. Through one of these, the surgeon inserts a tiny camera (a laparoscope) so the area can be viewed on a video monitor. The surgery is done using different long skinny tools inserted through the other small incisions. This surgery usually takes about 2 to 4 hours.

You and your surgeon choose what is best for you.

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

The '**Path to Home Guide: Liver Surgery**' on the next page gives you an example of a person's recovery in hospital.

Path to Home Guide: Liver Surgery

Category	After Surgery				
	Surgery Day	Day 1	Day 2	Day 3	Day 4 (lap) Day 5 (open)
Nutrition	 Full fluids	 Regular diet			
Activity	 Sit or stand at bedside  Walk short distance	 2 or more times  Sit for meals	 3 or more times 	 	
	Leg exercises every day 				
Deep Breathing Exercises	Every day  10 times per hour		 Hold 5 sec		
Pain Control	 	*PCA pump or epidural	Pills 		
	Pain at a level comfortable for you				
Tubes and lines	 Intravenous Urinary catheter		 Intravenous capped 	 	

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

* Epidural Sometimes the epidural catheter placed in your back for surgery is left in place. An epidural gives continued pain relief by numbing the nerves of the surgery area as long as the pump is running

After Your Surgery

Going home

How long you stay in the hospital depends on:

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

Most people can go home 4 to 5 days after open incision surgery or 3 to 4 days after laparoscopic surgery.

You are ready to go when:

- ✓ You are eating and drinking regular food and drinks.
- ✓ Your bowels are working.
- ✓ Your incision is healing.
- ✓ Your pain is well controlled with pills.
- ✓ You can move around safely.
- ✓ 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

If you have been living with pain before surgery, be sure to tell your surgeon how you manage this pain, such as with medicines, herbs, supplements, cannabis products, other substances, massage, yoga, meditation, etc. This helps your surgeon create the best plan with you for managing pain after surgery.

It is normal to have some discomfort or pain when you return home. This should steadily improve but might last for a few days to a couple of weeks.

How much pain you have and how much pain medicine you need depends on the type of surgery you had, how it was done (open or laparoscopy), and if you were using anything for pain before surgery. Your pain should be at a comfortable level that allows you to move, take deep breaths, cough, and to do every day activities.



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).

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.

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.

Family Practitioner:

Refers to either a family doctor or nurse practitioner

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 (Tyleno®)
- 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.

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.

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.

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.

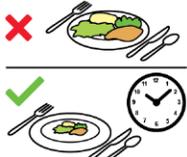
Safely disposing of unused opioids:

- 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.



Small Frequent Meals

Need more help
with food choices?
Call 8-1-1. Ask to
speak to a
dietitian.

Drinking and eating

It might take some time before your appetite returns to normal. To heal, your body needs extra calories and nutrients, especially protein.

- Drink at least 6 to 8 glasses of liquid each day (unless you have been told differently because of a medical condition).
- Eat foods high in protein such as meat, poultry, fish, eggs, dairy, peanut butter, tofu, or legumes.
- Eat 5 to 6 small, frequent meals. It might be easier and help you get enough calories and protein.
- Drink nutritional drinks (nutritional supplements) if you are not able to eat enough food each day. Examples: Ensure® or Boost®.
- ✘ **Do not** drink any alcohol. Ask your surgeon when, or if, it is safe for you to drink alcohol. Alcohol is filtered and processed through the liver.

Keeping your bowels regular

Constipation can happen because you are taking opioid pain medication, have decreased activity, or are 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 increase the fibre in your diet.
- Increase your activity.

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



Caring for your incision

Always wash your hands before and after touching around your incision site(s).

Before you leave the hospital, your nurse will teach you how to care for your incision.

Showering:

- You can shower once most of your tubes and lines have been taken out, usually within 3 days after surgery.
- 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 incision is 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 delay healing.



Getting rest

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

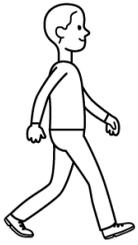
Try to get at least 8 hours of sleep each night. Take rest breaks and naps during the day, as needed.

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



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.



Being active

Activity and exercise help build and maintain your muscle strength, give you more energy, and help with recovery. You need to find a balance between rest and activity. Pace yourself for the first few weeks.

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 medication.

Your surgeon will tell you when you can increase your activities at your follow-up appointment.



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

For the next 4 to 6 weeks, limit heavy activities to protect your incision and abdominal muscles:

- ✘ **Do not** lift, push, or pull anything over 4 to 5 kilograms (10 pounds). This includes carrying children and groceries.
- ✘ **Do not** vacuum, rake leaves, paint walls, reach for things in high places, or any other reaching activity.
- ✘ **Do not** play any sports, do high intensity exercise, or weight training.

You can return to **sexual activity** when you feel ready and your pain is well controlled.



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.

Questions you might have:

Examples: 'How will my bowel habits change?' 'When will I be able to return to my regular activities?' 'When can I return to work?'

When to get help

Call your surgeon or family practitioner if:

- 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) or your urine smells bad.
- 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 are throwing up or not able to keep fluids down.
- You have diarrhea that is severe or continues for more than 2 days.
- 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

Arrange to have your staples or sutures (stitches) removed 10 to 14 days after the surgery.

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

My appointment is on: _____

See your family practitioner (family doctor or nurse practitioner) 7 to 10 days after going home from the hospital.

My appointment is on: _____

See your surgeon 3 to 4 weeks after going home from the hospital.

My appointment is on: _____

www.fraserhealth.ca

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

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