

# Liver Surgery

Royal Columbian Hospital

## Your surgery and recovery at home

This booklet belongs to: \_\_\_\_\_

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

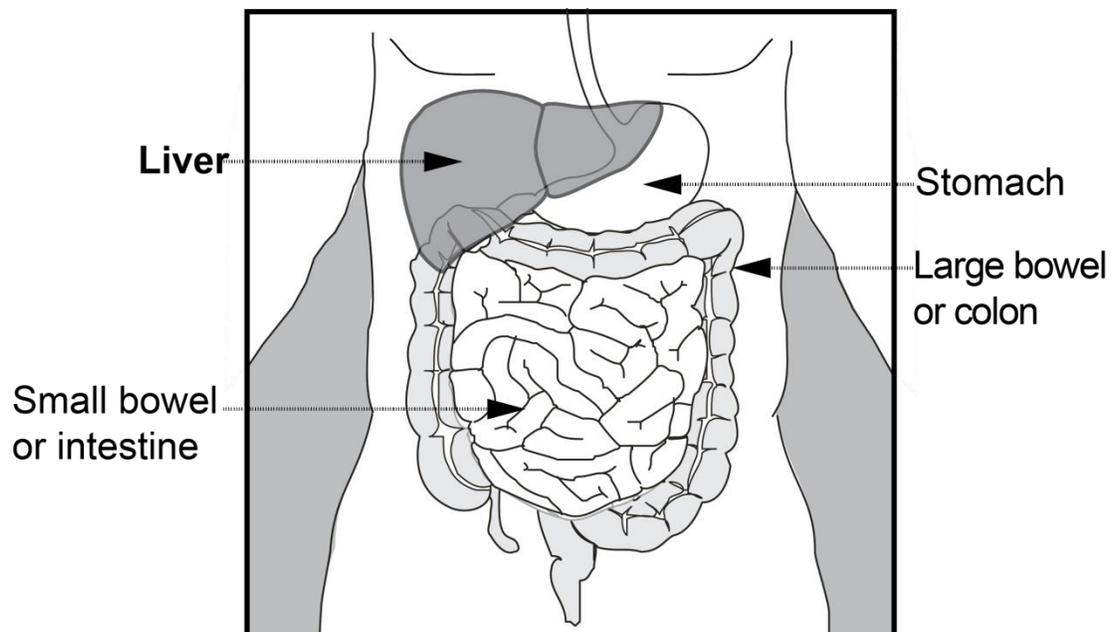
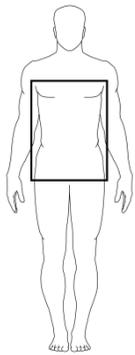
**Read both booklets carefully.**

**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)
<b>Nutrition</b>	Full fluids	Diet as tolerated	Diet as tolerated	Diet as tolerated	Diet as tolerated
<b>Activity</b>	Sit or stand at side of bed Leg exercises	Walk 2 or more times Leg exercises	Walk 3 or more times Leg exercises	Continue walking as tolerated Leg exercises	Continue walking as tolerated Leg exercises Getting ready to go home
<b>Deep Breathing Exercises</b>	10 times every hour	10 times every hour	10 times every hour	10 times every hour	10 times every hour
<b>Pain Control</b>	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	Pills Pain at a level comfortable for you	Pills Pain at a level comfortable for you	Pills Pain at a level comfortable for you
<b>Tubes and lines</b>	Intravenous Urinary catheter	Intravenous Urinary catheter	Intravenous capped Urinary catheter taken out	Intravenous 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

## Going home

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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

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.

The level of pain and type of pain medication you need depends on:

- The type of surgery you had
- How the surgery was done (open or laparoscopy)
- If you were taking pain medicine before surgery

Your pain should be at a comfortable level that allows you to move, deep breathe, cough, and to do every day activities.

When you are ready to go home, your surgeon will give you specific instructions on what to take for pain. 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.

**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

**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<sup>®</sup> (tramadol and acetaminophen) ★
- Tylenol #3<sup>®</sup> (codeine and acetaminophen) ★
- Oxycocet<sup>®</sup> / Percocet<sup>®</sup> (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.

### 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.

## 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<sup>®</sup> or Boost<sup>®</sup>.
- ✗ **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.



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

## 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.

## 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.

## 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.



## 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.

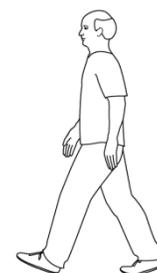
For the next 4 to 6 weeks, limit heavy activities to protect your incision and abdominal muscles:

- ✘ **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.



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



**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?'

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



Available in 130 languages.

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

**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**





## **Appointments after surgery**

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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:** \_\_\_\_\_

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

Catalogue #265476 (June 2017)  
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