Enhanced Recovery After Surgery (ERAS)

Liver Surgery

Please bring this booklet with you to all your appointments and to the hospital when you come in for surgery.
Pre-op Information at a Glance

Your Surgeon is: ____________________________________________

Office number: _______________________________

Your surgery date is: __________________________
If you have a cold, fever, cough or have any new sickness before your surgery, please call your surgeon’s office as soon as possible. Also call if you become pregnant.

Your planned surgery is: ______________________________________

Check in time is: ________________________________
One business day before your surgery date, your surgeon’s office calls you to give you your check-in time. If you have not heard from the office by 2:00 p.m., please contact the surgeon’s office.

Item(s) with a tick box is/are some of the key areas that your surgeon and care team want you to focus on before surgery. For more information, please refer to this booklet on page 11:

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**Important Notice** - the information contained in this booklet is intended for educational purposes and describes anticipated events. Each person responds differently and your recovery may not be exactly as described. This booklet does not replace instructions or advice given by your healthcare provider. If you have any questions, please ask any member of your care team.
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Introduction

You are going to have liver surgery. This booklet will help guide you through the sequence of events and provide you with information to answer common questions you may have.

We will be using a program called Enhanced Recovery to help plan your surgery. By using an Enhanced Recovery Program we can help you to recover faster. To find out more about Enhanced Recovery and your role, please click on the link below to watch a 5 minute video: http://bit.ly/enhancedrecovery (if the link fails, please cut and paste directly into Google Chrome to obtain the video) or scan the QR Code.

Having a surgery can be a stressful event. We hope this booklet will help you understand your surgery, decrease some of the stress, and give you information to help speed up your recovery.

Please bring this booklet with you to your Pre-Admission Clinic appointment and to the hospital when you come in for surgery. We will be using your booklet to help with your teaching and track what questions/concerns you might have.

There is space throughout the booklet to write down any questions that come to mind. Use this space as well to write down the answers to your questions. We will go through the information with you and give you instructions that are specific for you.

In the hospital, you could hear words you are not familiar with. At the back of the booklet is a section for you to keep track of words you would like explained. If you hear words that you do not understand, please write them down and ask us to explain the words to you.

You are an important member of your care team. You will benefit from taking an active part in preparing for your surgery and your recovery. Your care team is here to help you and your family through your surgery. If you have any questions or concerns, please feel free to discuss with any of us.

Please feel free to ask any health care provider to wash their hands.
Your liver – A quick review

The liver is the largest solid organ in the body and is located in the right upper part of the abdomen under the rib cage. It is divided into 2 main lobes (right and left), and is further subdivided into 8 segments (see Figure 1).

Functions of the liver

• process the food that we eat so that nutrients can be absorbed from the digestive tract
• remove drugs, toxins and alcohol
• produce proteins that fight infections and help blood to clot
• produce bile to aid in digestion and absorption of fat

The liver is the only organ that can re-grow (regenerate) if it is healthy. This means that if a part of the liver is taken out, the part that is left can grow to almost the size and shape it was before.

The liver also works with stomach, pancreas and gallbladder to process food that you eat. Here are the organs associated with the liver (see Figure 2 below).
Liver surgery

Liver Resection (also known as Hepatectomy or surgical removal of a portion of the liver). There are many different liver procedures that can be performed by your surgeon. The type of liver resection chosen depends on the size of the tumor and the location of tumor in the liver. The gallbladder will also need to be taken out.

Right Lobectomy:
removal of segments 5-8

Left Lobectomy:
removal of segments 2-4

Right Trisegmentectomy:
removal of segment 4-8 and sometimes segment 1.

Left Lateral Segmentectomy:
removal of segments 2-3

Your Surgery can be done in one of two ways:

1. In open surgery, the surgeon makes a curve incision across the right, and possibly left side of your upper abdomen, just below your ribs (see Figure 3).

2. In laparoscopic surgery, several small cuts or incision are made on your upper abdomen through which instruments and a camera are inserted (see Figure 4). Your Surgeon discusses with you about which way will be best for you.
Before your surgery

Pre-Admission Clinic

All people visit the Pre-Admission Clinic before surgery, except patients admitted to hospital through emergency.

You meet with an anesthesiologist and a nurse. Together they will help guide you through the process of your surgery, go over what you need to do to get ready for surgery, and answer any questions you have.

- An anesthesiologist is a doctor who specializes in keeping you comfortable and safe during your operation. The anesthesiologist also helps you manage your pain after the operation.
- To come up with an appropriate plan for your care, the anesthesiologist and the nurse will ask you questions about your health status and medical history.
- They review what you need to do to prepare for the surgery, explain the care plan for you, start planning for when you go home after surgery and answer any questions that you may have.
- For your surgery, you will need a general anesthetic (you will be made unconscious or “put to sleep”).
- To treat pain after surgery, you may be offered an epidural. An epidural is a small tube that is put in your back just prior to surgery. It delivers medicine that numbs the surgical area. Because it has fewer side effects than narcotics, such as morphine, it is the preferred method for pain control after a liver resection.
- If you cannot have an epidural, the anesthesiologist will order you a Patient Controlled Analgesia (PCA) pump to manage your pain after surgery. A PCA pump is a computer controlled narcotic pump that is attached to your intravenous line. When you have pain, you can press a button to receive a dose of narcotic. The computer has a safety feature to prevent narcotic overdose, which makes PCA’s a very safe method of providing analgesia while allowing you better control of your pain.
What to bring to this appointment:

- All the medicine, supplements and herbal products you are taking in their original containers
- A summary of your medical history and your health problems
- Since we give you a lot of information during this visit, we encourage you to bring a family member or friend with you.
- This booklet
Emergency admission

Sometimes people are admitted to the hospital through the Emergency Department and require urgent or emergent surgery.

If this happens for you, your experience will be different.

The nurse on the hospital ward will:

• Guide you through the process of your surgery and explain the preparation required
• Give you this patient education booklet
• Answer questions you may have

The Anesthesiologist will visit you on the hospital ward. He/She will:

• Ask you questions about your health and medical history. This information helps us plan your care.
• Discuss how your pain will be managed during and after your surgery.
Getting yourself ready

It is important for you to be in the best possible condition for your surgery. This will help you recover faster and decrease the chances of any problems. The recommendations below are things you can do to help prepare yourself for surgery.

1. Move

Exercise helps you be in the best shape possible before your surgery and can help speed up your recovery. You do not need to join a gym. Just going for a walk for 30 minutes each day is good exercise. Talk to your doctor before starting an exercise plan.

2. Breathe

a) Deep breathing opens up your lungs, exercises the lung muscles and improves oxygen delivery to your body.

Deep breathing exercise: Do every hour while you are awake

• Start by placing your hands on your ribs
• Take a deep breath slowly through your nose, expanding your lower chest until you feel your ribs push against your hands
• Hold your breath for a count of 3
• Breathe out slowly through your mouth
• Repeat this 5 more times

b) Smoking and tobacco use

Research tells us that people who stop smoking at least 1 month before surgery have fewer complications after surgery. For free nicotine patches or gum to help you quit, call 8-1-1 and register for the BC Smoking Cessation Program. You can also visit the QuitNow website for more help: www.quitnow.ca, or email VGH Smoking Cessation Clinic at CessationClinic@vch.ca.
3. Eat
   
a) Your body will need extra energy, nutrients, and calories to heal. It is important that you be in the best nutritional shape that you can be. A dietitian can help you choose healthy foods that will help prepare you for surgery. If you have had unexplained weight loss or gain in the past 6 weeks, if you have noticed a decrease in appetite, or if you are overweight or underweight, it may be helpful to speak with a dietitian. You can get a referral to a dietitian from your family doctor or you can contact a dietitian by dialing 8-1-1 (Health Link BC) on your phone. Be sure to tell them you are going for surgery.

b) Alcohol
   Alcohol can interfere with your anesthetic and other medicines we give you during and after surgery. **Do not drink any alcohol for at least 48 hours** before your surgery.

4. Relax
   It is very normal to feel anxious before surgery. We also know that stress increases the release of hormones that can delay healing and recovery. Get moving, practice breathing exercises and dedicate time to positive things can help improve your outcomes after surgery.

5. Improve anemia and iron stores
   Anemia occurs when your red blood cell count (hemoglobin) is low. This impairs your body’s ability to adequately deliver oxygen to tissues. Anemia is commonly caused by bleeding or low iron stores. Anemia is the greatest risk factor for needing a blood transfusion during surgery. Both anemia and blood transfusions are associated with a greater risk of complications in hospital. Improving your hemoglobin will also allow you to better heal, and have more energy when you return home. If your hemoglobin or iron stores are low, you may be contacted by the Perioperative Blood Management Program (PBMP) with suggestions to help improve your hemoglobin and iron stores.

6. Blood sugar control
   Your blood sugar will be checked with a blood test called HgA1C. If the result is high, you may be referred to an endocrinologist (diabetes doctor) to improve your blood sugars before surgery. Maintaining normal blood sugar is important for wound healing, especially after surgery.
Planning now for when you go home

You are admitted to the hospital on the morning of your surgery.

You can expect to go home 4 to 7 days after your surgery, but this varies with each person depending on the type of surgery you are having and your health. Most people are ready to go home at 10:00 in the morning. Please arrange for a ride home.

Before you come to the hospital, think about what you will need when you go home (or wherever you will be staying). Get things ready in advance so they are ready when you leave the hospital. You will need help with meals, laundry, bathing, etc for the first week or so. Try and arrange for family and friends to help you. If you need help with wound care or other care, we will arrange this before you leave the hospital.

Something to organize and to prepare for a successful recovery:

• Where will you be going after you leave the hospital?
  Will you go home or stay with family or friends for a while?

• Who will drive you home from the hospital?

• Prepare and freeze meals ahead of time so all you have to do is microwave or reheat.

• Shop for extra food that is easy to prepare.
What to bring to the hospital?

• **Bring this booklet with you.** We refer to information in this booklet throughout your stay.

Pack a small bag with things you could need during your hospital stay.

• **Sugar-free chewing gum for after surgery**
• Your BC CareCard and private insurance information
• Your Driver’s License or other government-issued indentification
• If you do not speak English, bring someone to assist you. If you need an interpreter, please advise your surgeon before your hospital admission.
• All your medicines in original containers (including non-prescription medicines)
• Housecoat, slippers with non-slip soles, pyjamas
• Toothbrush, toothpaste, soap, deodorant, shaving equipment, earplugs
• Clothes to wear on the day of going home
• Glasses (in the case with your name on it)
• Dentures and container labelled with your name
• Hearing aids and spare batteries (with the container labelled with your name)
• Mobility aids you normally use (cane, walker)

**Please limit belongings to one small bag.**

The hospital is not responsible for lost or stolen valuables. Please leave any valuables at home.
Special preparations

We have specific instructions for you on how to prepare for the surgery depending on what type of surgery you are having. Your surgeon might also give you other specific instructions.

We have checked off (✓) in this section which instructions you are to follow. Follow these instructions along with what your surgeon has given you.

The week before your surgery

Medicines
• 7 days before your surgery, stop taking Vitamin E and any herbal medicines.
• Follow the instructions from the anesthesiologist in the Pre-Admission clinic.

The day before surgery

Surgery time
• Your surgeon’s office calls you to tell you what time you are having your surgery and what time you need to check into the hospital.
• Write this time on the inside cover of this booklet.
• If you have not heard from the office by 2:00 p.m., call the surgeon’s office to get this information.

Contact your surgeon’s office as soon as possible if:
• You feel sick
• You have become pregnant
• For any reason you feel you need to cancel your surgery
The day before surgery, continued

Cleaning your bowels

You do not need to do any special preparation for your bowels.

Diet

Stop eating solid food at midnight, but you can continue to drink clear fluids up to 1 hour before your check-in time at the hospital.

A clear fluid is something you can see through, such as clear juices (look for ‘no pulp’ on the label), energy drinks, water, soft drinks, clear broth, consommé, or Jell-O.

Milk is not a clear fluid.
Preparing your skin

The hospitals are starting a new program to reduce the risk of infection after surgery. Follow the instructions in the pamphlet “Lowering Your Risk for a Surgical Infection”. This will be given to you at your Pre-Admission Clinic appointment.

Carbohydrate loading for non-diabetic patients and diabetes patients NOT on insulin

☐ The evening before surgery prior to midnight:
  - Drink clear fluids high in sugar (carbohydrate). This helps to keep you hydrated and helps keep your blood sugar normalized during surgery. Do not use diet or sugar-free drinks.

Examples of drinks:
- PREcovery 400 mL
- Apple juice 500 mL or 2 cups
- Cranberry juice 500 mL or 2 cups
- Iced Tea (sweetened) 500 mL or 2 cups

Drink at least the amount shown. Drinking more is okay.

Carbohydrate loading for Diabetics on insulin

☐ You are not required to drink a clear juice unless you feel hypoglycemic. You may continue to drink water to remain hydrated.

Preventing infection

Our hospitals are starting a new program to reduce the risk of infection after surgery. Follow the instructions in the pamphlet “Lowering Your Risk for a Surgical Infection”. This will be given to you at your Pre-Admission Clinic appointment.
The day of your surgery

Medicines

The Pre-Admission Clinic Anesthesiologist will tell you what medicines to take on the day of surgery. You can take these medicines in the morning with a small sip of water.

Carbohydrate loading for non-diabetic patients and diabetes patients NOT on insulin

☐ 1 hour before your check-in time at the hospital, drink 400 mL PREcovery or 250 mL (1 cup) of the juices/tea as listed on previous page. Stop drinking all fluids once you have finished this drink. DO NOT drink this sugared drink if you have been told not to drink or eat after midnight.

Carbohydrate loading for Diabetics on insulin

☐ 1 hour before your check-in time at the hospital, drink 250 mL (1 cup) of water. You may drink a clear juice instead (up to 250 mL) if you feel hypoglycemic.
At the hospital

- Go directly to the **Admitting Department**.
- We check you in and make sure all your preparations are complete.
- You will be asked to wash again with the chlorhexidine wipes and then change into a hospital gown.
- If you need your glasses, leave them on until we ask you to take them off.
- Keep your hearing aid(s) or cochlear implant in place until we ask you to take it off.
- Leave your dentures in until we ask you to take them out.
- We might give you some medicines to help prepare you for your surgery.
- We encourage you to leave your bag of clothes and other belongings with family.

The day of your surgery, continued
The surgery

We take you into the operating room about an hour before your surgery.

You meet with the anesthesiologist who will take care of you while you sleep through the surgery.

We insert an intravenous (IV) into your arm.

The type of anesthetic you have depends on the type of surgery you have. There are two main types of anesthetics. The anesthesiologist gives you the anesthetic and looks after you while you sleep through the surgery.

- **General Anesthesia:** The anesthesiologist gives you anesthetic drugs through your intravenous to help you sleep and manage pain during surgery. We also place a mask over your mouth and nose to give you oxygen and possibly other drugs to help with your breathing.

- **General Anesthesia combined with Epidural pain management:** You have general anesthetic as above as well as an epidural in your back. The anesthesiologist uses the epidural tubing to give you pain medicine to numb the surgery area.

Waiting room

Your family or friends can wait for you in the waiting room.

Your visitors will not be able to see you until you have been moved to the nursing unit. We let you and your family know which unit you are going to.
After surgery

Post-Anesthetic Care Unit

When your surgery is finished, we move you to the Post-Anesthetic Care Unit (PACU), often called the ‘recovery room’. You wake up in the recovery room, although you may be drowsy. When you are able, we get you to put your hearing aid(s) or cochlear implant on. You can have your glasses at any time.

You will have an oxygen mask and at least one intravenous. If you had an epidural inserted before your surgery, this will be in place. You might have a catheter into your bladder to drain urine, and a tube in your nose and down into your stomach to keep your stomach empty (this is called an ‘NG tube’). We insert the bladder catheter and NG tube during your surgery, if needed.

We check your blood pressure, pulse, and breathing rate frequently. We also check the bandage (or dressing) covering your surgery area. We ask you how much pain you are having and give you pain medicine when needed.

You can begin to have gum if you feel like it. You can also begin to do your leg exercises.

When you are well enough to be cared for on our surgical nursing unit, we move you to that unit. Your family and friends can visit once you are on the unit.

High Acuity Unit/Stepdown Unit

Some people need to be watched for a longer period of time. If this is the case, you are moved to the High Acuity Unit. You can stay here overnight and up to several days. This may be because of other conditions you have or because of the type of surgery you had. When you are well enough, we move you to the surgical nursing unit.

Surgical Nursing Unit

You stay on this unit until you are ready to leave the hospital. Our goals are to control your pain, prevent complications, increase your activity, and return you to your normal diet. Most people will stay on the unit for 4 to 7 days, but this varies with each person depending on the type of surgery you had and your health. The team will keep you informed of your progress and anticipated discharge date.
Pain control

Many people are concerned about pain after their surgery. Some people feel pain is expected and try to “grin and bear it” while others do not want to take pain medicine because they are afraid of becoming addicted. You cannot become addicted to pain medicine when it is used to treat your surgical pain.

Pain is not helpful to your recovery. Your recovery will be slower if you are in too much pain. It will be more difficult to breathe deeply and move easily which can increase complications such as pneumonia and blood clots. Pain interferes with your sleep and can affect your appetite. Pain also slows down wound healing.

We give you several different pain medicines regularly. This helps give you better overall pain relief. You will receive these pain medicines even if you are not in pain at the time. If you are asleep, the nurse will wake you to take these regular medicines.

- you will get regular acetaminophen (Tylenol®) every 6 hours throughout your stay (maximum 2 gm per day).
- you will get NSAIDS such as diclofenac (Voltaren®) every 8 to 12 hours throughout your stay
- you may have a pain pump for you to give yourself pain medicine (such as Patient-Controlled Analgesia [PCA]) or an epidural catheter
- you will get other pain medicines as needed.

Other things you can do to help ease the pain:

- listen to music
- do slow and relaxed breathing
- imagine peaceful situations

Ask your nurse about these other ways to help manage your pain.

Your pain score

An important part of managing pain is monitoring how much pain you are having. The best way to monitor your pain over time is to use something to measure the amount of pain you have.

To help us assess your pain and the effectiveness of the pain medicine, we use a pain rating scale. We will ask you to rate your pain on a scale of 0 – 10, where 0 means no pain at all and 10 is the worst pain ever.
If you have trouble choosing a number for your level of pain, we use pictures of the faces above to ask about your pain (This tool is available in 22 languages).

Where we want your pain level to be:

- at a level less than 4 on the number scale, or
- at a comfort level that allows you to carry out your normal activities such as washing up, sitting and walking

Pain medicine works best if it is taken before pain becomes uncomfortable.

It is important to know that pain medicine will not make your recovery completely painless. The goal is to manage your pain and help you recover.

Let your nurse know if your pain does not get better with pain medicine or is getting worse.

**Nausea and vomiting**

You might feel sick to your stomach (nauseated) or throw up (vomit) after surgery. You will get medicine to prevent nausea every 8 hours for the first 1 to 2 days, and then as needed. Let your nurses know as soon as you feel sick to your stomach so we can give you medicine right away and prevent it from getting worse. These medicines work best if you take them before the nausea gets uncomfortable.

Other ways to help settle your stomach:

- Place a cool damp cloth on your face.
- Take some slow deep breaths.
- Take small sips of cold water or suck on ice chips.
- Try distracting yourself with music or watch TV.
Eating, drinking, and digestion

After surgery, your body needs healthy foods with extra calories and protein to help you heal. It is normal for your bowels to move slower than normal after surgery.

Drinking and eating as soon as it’s ordered after surgery helps your bowels return to working normally. The nurses will be providing you with a high protein drink (eg. Boost®) twice a day to supplement your diet.

If you have a nasogastric tube, you cannot eat or drink until after we take out the tube.

(This tube goes through your nose, down your throat, and into your stomach. We use it to help keep your stomach empty.)

We ask you often if you are passing any gas out of your backside (anus). This is a sign your bowels are starting to ‘wake up’ after the surgery.

• Chewing sugar-free gum helps wake up your bowels faster. It can also help keep your mouth moist.
• You should chew gum up to 15 minutes 3 times a day.
• Do not swallow the gum.
• Drinking coffee may also help wake up your bowels faster.

The stress of surgery can cause high blood sugars. Your blood sugar will be tested several times after surgery. Some patients need insulin to lower their blood sugar right after surgery.

Activity

The sooner you can get up and move around, the better it is for your recovery. Lying in bed leads to muscle weakness and can cause blood clots and pneumonia. Activity increases strength, helps to prevent complications, and helps get your bowels moving.

Remember to do your leg exercises (see page 27) while you are in bed.

On the day of your surgery, your nurse or physiotherapist gets you up into a chair next to your bed.

When you start to eat, you will sit up in the chair for all your meals.
As you improve each day, you will be able to do more for yourself. Keep your activities short and do them often rather than try to do everything at once. We don’t want you to get too tired.

We will encourage you to get up and walk around the unit as soon as you can. Most people are up and walking the day after surgery.

**Deep breathing and coughing/ICOUGH Protocol**

After surgery, your lungs make extra mucus. Deep breathing and coughing exercises help to clear this mucus from your lungs and prevent pneumonia. Deep breathing opens up your lungs and helps to loosen the mucus. Coughing helps remove the mucus from your lungs.

Before doing these exercises, make sure your pain score is at a level that allows you to do these exercises. If needed, ask for pain medicine at least one hour before doing these exercises.

**Deep breathing exercise**

Do every hour while you are awake.

1. Start by placing your hands on your ribs.
2. Take a deep breath slowly **in through your nose**, expanding your lower chest until you feel your ribs push against your hands.
3. Hold your breath for a count of 3.
4. Breathe **out slowly through your mouth**.
5. Repeat this 5 more times.

**Coughing exercise**

Do every 2 hours while you are awake and after your deep breathing exercise.

1. Place a small pillow or blanket over your surgery area to protect or splint your incision. This helps decrease pain with coughing and allows a stronger cough.
2. Do your deep breathing exercises.
3. Cough several times.
Moving around in bed

Change your position in bed at least every 2 hours. This helps keep you from getting stiff and gets blood flowing to your arms, legs, and skin. You might find moving difficult because of incision pain.

To move your body sideways:
   1. Lie on your back.
   2. Bend your knees.
   3. Lift your hips and shift them sideways.
   4. Then follow with your shoulders.

To roll onto your side:
   1. Bend your knees.
   2. Support your incision with one hand (the hand on the side you are rolling onto).
   3. With the other hand, reach across to the bed side-rail.
   4. Pull yourself onto your side, rolling like a log.

To sit up on the side of the bed:
   1. Bend the knee on the side you are not turning onto.
   2. Use your bent leg to help you log roll onto your side. Roll your whole body as one as much as possible.
   3. Drop your legs over the edge of the bed.
   4. Push yourself up with your arms.

If you cannot remember how to do these exercises when you are in the hospital, don’t worry. Your physiotherapist or nurse can review with you how to do all of these exercises. To help you remember to change positions, we remind you.
Leg exercises

Exercises help keep the blood flowing through your legs, keep your muscles strong, and prevent stiff joints. Exercises reduce the chances of you getting a blood clot.

- Do all of these exercises **every hour** while you are awake until you can get up and walk around the nursing unit.

Ankle pumps

1. Bend your foot up towards your head.
2. Bend your foot down towards the foot of the bed.
3. Repeat **5 times**.

Ankle circles

1. Move your feet around slowly in large circles.
2. Repeat **5 times in each direction**.

Hip flexion

1. Bend your knee by sliding your heel up toward your body as shown.
2. Slide your heel back down.
3. Repeat **5 times**.

Thigh muscle contraction

1. With your leg straight, tighten the muscles on the top of your thigh.
2. Press the back of your knee down.
3. Hold for **5 seconds**. Relax.
4. Repeat **5 times** then repeat this exercise with the other leg.
What to expect each day

Every person’s recovery is different. These next pages describe what most people can expect following liver surgery.

Most people are ready to go home in 4 to 7 days after surgery. We use the guidelines below to help us decide when you are ready to go home. You are ready to go home when you meet the 5 criteria below:

- Your pain is managed with pills only
- You are able to eat food without pain or bloating
- You are passing gas or have had a bowel movement
- You are able to do your basic activities of daily living as you were before surgery
- There are no signs of problems from your surgery

Any time you have questions about your care and recovery, talk with your nurse, your surgeon, or other care providers.

Surgery day

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<th>Topic</th>
<th>What to expect</th>
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</thead>
<tbody>
<tr>
<td>How will I feel?</td>
<td>You probably feel sleepy and need lots of rest.</td>
</tr>
<tr>
<td>What equipment do I have?</td>
<td>You might have several pieces of equipment and tubes. These are different for everybody but can include:</td>
</tr>
<tr>
<td></td>
<td>- Oxygen mask</td>
</tr>
<tr>
<td></td>
<td>- Intravenous for fluids</td>
</tr>
<tr>
<td></td>
<td>- Pain pump – For you to give yourself pain medicine (Patient-Controlled Analgesia [PCA]) or Epidural catheter for pain control</td>
</tr>
<tr>
<td></td>
<td>- Catheter into your bladder to empty your bladder and measure the amount of urine (pee)</td>
</tr>
<tr>
<td></td>
<td>- Nasogastric tube to empty your stomach</td>
</tr>
<tr>
<td></td>
<td>- Dressing or bandage over your incision</td>
</tr>
<tr>
<td></td>
<td>- Pelvic drain</td>
</tr>
<tr>
<td>How is my <strong>pain</strong> treated?</td>
<td>We treat your pain several ways:</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td><strong>If your pain score is more than 4 out of 10 on the pain scale, tell your nurse.</strong></td>
<td>- Pain pump (Epidural pump and/or PCA Pump)</td>
</tr>
<tr>
<td></td>
<td>- Regular acetaminophen (Plain Tylenol®) every 6 hours (maximum 2 gm per day)</td>
</tr>
<tr>
<td></td>
<td>- Non-Steroidal Anti-inflammatory (NSAIDS) medicines such as diclofenac (Voltaren®) every 8 to 12 hours</td>
</tr>
<tr>
<td></td>
<td>- Other pain medicines</td>
</tr>
<tr>
<td></td>
<td>Relaxation techniques such as deep breathing, warm blankets, or listening to music.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What is my <strong>activity</strong>?</th>
<th>With help, you get up to a chair or sit on the edge of the bed for 15 minutes at a time.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Every hour while awake:</td>
</tr>
<tr>
<td></td>
<td>- Deep breathing and coughing</td>
</tr>
<tr>
<td></td>
<td>- Leg exercises when in bed</td>
</tr>
<tr>
<td></td>
<td>At least every 2 hours:</td>
</tr>
<tr>
<td></td>
<td>- Turn or change your position in bed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What can I <strong>eat</strong>?</th>
<th>You may have ice chips today</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>You will get nausea medicine every 8 hours to prevent nausea.</td>
</tr>
<tr>
<td></td>
<td>Start chewing gum for up to 15 minutes, 3 times a day.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Can I <strong>wash</strong>?</th>
<th>We may help you wash in the evening.</th>
</tr>
</thead>
</table>

| Can I have **visitors**? | You can have visitors, but remember you will be tired. Keep visits short. We suggest only close family visit you today. |

**Notes:**
<table>
<thead>
<tr>
<th>Topic</th>
<th>What to expect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How will I feel?</strong></td>
<td>You should feel stronger today but might still feel tired. Rest between activities.</td>
</tr>
</tbody>
</table>
| **What equipment do I have?** | You could have several pieces of equipment and tubes. We might start removing some equipment or tubes today.  
  - Intravenous – we leave it in place if you are not drinking liquids or we are using it to give you medicines.  
  - Pain pump  
  - Catheter in your bladder  
  - Nasogastric tube to empty your stomach  
  - Dressing over your incision  
  - Pelvic drain |
| **How is my pain treated?** | We will ask you for your pain score at least every 4 hours. We treat your pain several ways:  
  - Pain pump (Epidural pump and/or PCA Pump)  
  - Regular acetaminophen (Plain Tylenol®) every 6 hours (maximum 2 gm per day)  
  - Non-Steroidal Anti-inflammatory medicines such as diclofenac (Voltaren®) every 8 to 12 hours  
  - Other pain medicines if needed  
Relaxation techniques such as deep breathing, warm blankets, or listening to music. |
| **What is my activity?** | Try to do a total of 4 hours of activity today. With help, you get up to walk short distances (2 times a day). You will walk to the bathroom with help.  
Sit up in a chair for meals, or 3 times/day.  
Every hour while awake:  
  - Deep breathing and coughing  
  - Leg exercises when in bed  
At least every 2 hours:  
  - Turn or change your position in bed. |
**Day 1, continued**

| What can I eat? | Depending on what surgery you had:  
| - You may have either a full fluid diet or a post surgical transition diet.  
| - You will also be offered 2 high protein oral nutrition supplement drinks (eg. Boost® 1.5).  
| We encourage you to chew gum for up to 15 minutes, 3 times a day.  
| Tell the nurse if you pass gas or have a bowel movement.  
| You will receive nausea medicine if you need it. |

| Can I wash? | Wash at your bedside or in the bathroom. You might need some help to get set up. |
| Can I have visitors? | Yes.  
| Ask your family and visitors to let you rest for 2 hours during the day. |

| When can I go home? | Plan to go home on day __________.  
| Review your ERAS liver Surgery booklet, focusing on “The Day You Go Home” on page 38 to help get ready for discharge. |

**Notes:**

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### Day 2

<table>
<thead>
<tr>
<th>Topic</th>
<th>What to expect</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will I feel?</td>
<td>You start feeling stronger today. Rest between activities.</td>
</tr>
</tbody>
</table>
| What **equipment** do I have?              | - Intravenous  
- Pelvic drain  
- Dressing over the incision  
- Nasogastric tube  

If not already taken out, we may remove the:  
- Pain pump  
- Catheter in your bladder.                                                                                                                                  |
| How is my **pain** treated?                | We treat your pain several ways:  
- Regular acetaminophen (Plain Tylenol®) every 6 hours (maximum 2 gm per day)  
- Non-Steroidal Anti-inflammatory medicines such as diclofenac (Voltaren®) every 8 to 12 hours  
- Other pain medicines if needed  

Relaxation techniques such as deep breathing, warm blankets, or listening to music.                                                                                   |
| What is my **activity**?                   | Try to do a total of 4 to 6 hours of activity during the day.  
Get up to the chair without help  
Sit up in a chair for all meals, or 3 times/day  
Walk to the bathroom with someone standing by.  

Every hour while awake:  
- Deep breathing and coughing  
- Leg exercises when in bed  

At least every 2 hours when in bed:  
- Turn or change your position  

At least 2 times a day, walk one circuit around the unit with someone standing by in case you need help.    |
**Day 2, continued**

<table>
<thead>
<tr>
<th>What can I eat?</th>
<th>Depending on what surgery you had:</th>
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<td></td>
<td>- You might be started on either a post surgical transition diet or eating and drinking a normal diet.</td>
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<tr>
<td></td>
<td>- You will also be offered 2 high protein oral nutrition supplement drinks (eg. Boost® 1.5).</td>
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<tr>
<td></td>
<td>We encourage you to chew gum for up to 15 minutes, 3 times a day.</td>
</tr>
<tr>
<td></td>
<td>Tell the nurse if you pass gas or have a bowel movement.</td>
</tr>
<tr>
<td></td>
<td>You will receive nausea medicine if you need it.</td>
</tr>
<tr>
<td></td>
<td>Wash at your bedside or in the bathroom.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Can I wash?</th>
<th>Yes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can I have visitors?</td>
<td>Ask your family and visitors to let you rest for 2 hours during the day.</td>
</tr>
<tr>
<td>When can I go home?</td>
<td>Plan to go home on day __________.</td>
</tr>
<tr>
<td></td>
<td>Review your ERAS liver Surgery booklet, focusing on “The Day You Go Home” on page 38 to help get ready for discharge.</td>
</tr>
<tr>
<td></td>
<td>If you need to take Low Molecular Weight Heparin, such as Dalteparin or Enoxaparin when you go home, we will start teaching you how to take it.</td>
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<tr>
<td></td>
<td>If you need help or equipment at home, you talk to a social worker, an occupational therapist, and physiotherapist.</td>
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</tbody>
</table>

**Notes:**
<table>
<thead>
<tr>
<th>Topic</th>
<th>What to expect</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will I feel?</td>
<td>You feel stronger today. Continue to rest as required.</td>
</tr>
</tbody>
</table>
| What equipment do I have? | - Intravenous  
- Pelvic drain |
| We change the dressing over your incision. If you incision is clean and dry, we leave it uncovered. You will see staples, sutures, or tape along your incision line.  
If not already taken out, we may remove the catheter in your bladder, alternate staples and nasogastric tube. |
| How is my pain treated? | We treat your pain several ways:  
- Regular acetaminophen (Plain Tylenol®) every 6 hours (maximum 2 gm per day)  
- Non-Steroidal Anti-inflammatory medicines such as diclofenac (Voltaren®) every 8 to 12 hours  
- Other pain medicines if needed |
| If your pain score is more than 4 out of 10 on the pain scale, tell your nurse. | Relaxation techniques such as deep breathing, warm blankets, or listening to music. |
| What is my activity? | Walk to the bathroom without help.  
Sit up in a chair for all meals.  
Try to do a total of 6 to 8 hours of activity during the day.  
Every hour while awake:  
- Deep breathing and coughing  
- Leg exercises when in bed  
At least every 2 hours when in bed:  
- Turn or change your position.  
- At least 2 times a day, walk one circuit around the unit on your own. |
### Day 3, continued

| What can I eat? | Depending on the surgery you had:  
- You will be eating and drinking a normal diet.  
- You will also be offered 2 high protein oral nutrition supplement drinks (eg. Boost® 1.5).  
We encourage you to chew gum for up to 15 minutes, 3 times a day. |
| Can I wash? | You can have a shower today. Try not to let the water spray on your incision. |
| Can I have visitors? | Yes.  
Ask your family and visitors to let you rest for 2 hours during the day. |
| When can I go home? | Plan to go home on day _________.  
Arrange for someone to pick you up by 10:00 a.m. on the day you go home.  
Review your ERAS liver Surgery booklet, focusing on “The Day You Go Home” on page 38 to help get ready for discharge.  
If you need to take Low Molecular Weight Heparin (LMWH), such as Dalteparin or Enoxaparin when you go home, we will continue teaching you how to take it. |

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**Notes:**

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### Day 4 until you leave the hospital

<table>
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<tr>
<th>Topic</th>
<th>What to expect</th>
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</table>
| **How will I feel?**                                | You continue to feel stronger.  
Continue to rest.                                                                                                                              |
| **What equipment will be on me?**                   | Your incision will be left open to air if there is no drainage. If not already taken out, we may remove the:  
- Pelvic drain  
- Intravenous  
- Remaining staples                                                                                                                     |
| **How is my pain treated?**                         | Use ways to relax and control the pain such as deep breathing, warm blankets, or listening to music.  
You will receive:  
- Regular acetaminophen (Plain Tylenol®) every 6 hours (maximum 2 gm per day)  
- Non-Steroidal Anti-inflammatory medicines such as diclofenac (Voltaren®) as needed  
- Other pain medicines as needed |
| **If your pain score is more than 4 out of 10 on the pain scale, tell your nurse.** |                                                                                                                                            |
| **What is my activity?**                            | You do at least 8 hours of activity throughout the day.  
Sit up in a chair for all meals.  
Do deep breathing and coughing exercises.  
At least 2 times a day, walk one or more circuits around the unit. You can do all your activities on your own. |
| **What can I eat?**                                 | You will be eating and drinking a normal diet.  
You also will be offered 2 high protein oral nutrition supplement drinks (eg. Boost® 1.5).  
We encourage you to chew gum for up to 15 minutes, 3 times a day. |
**Can I wash?**
You can take a shower.

**Can I have visitors?**
Yes.
Ask your family and visitors to let you rest for 2 hours during the day.

**When can I go home?**
Plan to go home on day ________.
Review your *ERAS liver Surgery* booklet.
Review *The Day You Go Home* on the next page of this booklet.
Review your *Pain Control After Surgery: Patient Information* booklet.
If you need to take Low Molecular Weight Heparin, such as Dalteparin or Enoxaparin when you go home, we will continue teaching you how to take it.
Before you leave, if you still have questions, take time to ask us.

**Notes**

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The day you go home

How you know you are ready

Everybody recovers at a different pace depending on their general health, any existing health conditions, and the type of surgery.

Generally, you are ready to leave the hospital when:

- your blood tests are normal or close to normal
- your blood pressure, heart rate, and temperature are normal for you
- your incision is healing
- your abdomen is soft and not bloated
- you have bowel activity (passing gas or having bowel movements)
- you are able to control your pain with just pain pills
- you are eating well enough
- you are able to walk around the unit and do most activities you could do before you had your surgery
- you can look after yourself at home (with help if needed)
- you can self-inject your Low Molecular Weight Heparin (LMWH)
- you can manage and care for the liver stent and hemovac (if applicable)

Your ride home

Most people are ready to go home at 10:00 a.m.
Ask the person picking you up to come and get you from the unit.

If you cannot get picked up by 10:00 a.m., we may ask you to wait in the Patient Lounge. We do this so that we can get your bed cleaned and ready for the next patient.

If there is a problem getting a ride or getting home, you might need to stay in a local hotel for one or two nights. You cannot continue to stay in the hospital if we feel you are well enough to leave the hospital.
Before you leave

Make sure you have:

- all your personal belongings including any medicines you brought with you
- your house keys
- your prescriptions
- instruction sheet for any new medicines
- your information booklets

- ERAS liver Surgery
- Pain Control After Surgery: Patient Information

- found out where and when you are to get your staples removed
- talked with an occupational therapist if you need equipment at home
- asked your surgeon when you need to make a follow-up appointment
- someone to stay with you for the first few days at home in case you need help

You may be seen by an occupational therapist (OT) before you go home. The OT will assess your level of function and recommend any equipment you may need in order to manage at home. For example: a raised toilet seat, bath stool or walker. The equipment can be borrowed from the Red Cross Society by donation up to 3 months and also can be purchased if needed. The OT may also request a community OT referral to assess you in your own home environment. All this information will be given to you before you go home.

You may be seen by a social worker before you go home. The social worker will arrange any home support you may need upon going home. For example: help with personal care (bathing, dressing, laundry) or meals.

You will also be told whether you need to continue with your previous medications and when to re-start them. If by chance you are not told by the time you are discharged home, ask your family doctor.

Please do not stop or change your medications on your own. Your family doctor may change, re-order or stop them for you.

Avoid aspirin (in any form) as it can increase the chance of bleeding. If you usually take a regular low dose of ASA, ask your family doctor prior to taking it.

Please ask your surgeon or family doctor before taking any herbal medications (some of them can also cause a risk of bleeding).

Do not drink alcohol when taking any type of medication.
Follow-up visit

Your surgeon will discuss with you your plan for follow-up before you go home.

If you are admitted to a different hospital related to a surgical complication, we would like to ask that a family member notify your surgeon’s office.

Call your surgeon’s office before you leave the hospital to make a follow-up appointment. If you go home on the weekend, call the next day the office is open. Normally a follow-up appointment is made for 4 to 6 weeks after going home, unless advised otherwise.

At the appointment, your surgeon reviews how you are recovering, talks with you about any test results from your surgery, and tells you if you need any further treatment.

You can (optional) call and make an appointment to see your family doctor within a week of going home. This will allow your family doctor to review your post-operative baseline and general health status. If you happen to come across any complications, at least your family doctor has a baseline to compare you with.

BC Cancer Agency referral

If necessary your surgeon may refer you to the Cancer Agency.

All relevant information will be faxed to the Cancer Agency for them to review along with your pathology reports. You may or may not see them prior to going home.

If you do not see them prior to going home, you will be contacted by the Cancer Agency with your appointment.
Emotions and feelings

If you have been given a diagnosis of cancer, this can be a devastating experience. Some of the emotions you may feel are anger, anxiety, fear, despair or hopeless, sadness, depression or acceptance. Some experience changes in their sleeping habits, concentrating and remembering. This can happen in hospital or after going home.

This is common and may last a few days or sometimes a few weeks. Family members may also feel a range of emotions.

Each person’s recovery is individual, and there is no right or wrong way to cope with it. Many people find by sharing and talking about their concerns with their family members, friends or surgeon helps. And others find attending support groups helps. Ask your family doctor or surgeon about any support groups that may be available. The Cancer Agency has several support services.
Caring for yourself at home

It can take 6 to 8 weeks to recover from liver surgery. Even when you are ‘healed’, it can still be several months before you feel completely recovered. There are some things you can do to help your recovery.

Pain

By the time we send you home, you will only need your pain pills. It is normal to have some abdominal pain for the first few weeks.

When you have pain:

1. Try first taking regular acetaminophen (Plain Tylenol®; maximum 2 gm per day) to see if this will help.
2. If the Tylenol® alone is not enough to ease your pain, take ibuprofen or another non-steroidal anti-inflammatory medicine.
3. If we gave you a prescription for an opioid pain medicine (eg. hydromorphone or oxycodone), only take this medicine if the Tylenol® and ibuprofen does not help.

Continue to use the pain rating scale as a guide to treating your pain. Try to keep your pain score less than 4 out of 10 on the pain scale.

Pain medication

People vary in the amount of discomfort and pain they feel. Some experience pain and others have a tingling and/or numbness sensation around the incision. The numbness is usually temporary and resolves within a few weeks. If the numbness lasts longer than that, inform your surgeon during your follow-up appointment. Your surgeon will provide you with a prescription for pain medication to keep you comfortable. Keeping discomfort and pain under control helps people recover.

If you have pain most of the time:
Take the pain medication on a regular basis as prescribed by your surgeon. Most pain medications work best if you can take them before the pain becomes too strong.
If you find that you only have pain when doing certain activities, such as walking, bathing, or during dressing changes:
Take the pain medication about 30 minutes before the activity.

Some pain medications can make people feel drowsy or dizzy. If you notice this, please do not drive or use power tools. It is against the law to drive while taking narcotics.

**Constipation** is a common problem with pain medications. To prevent constipation, eat foods that are high in fibre (bran, fresh fruits, vegetables and whole grains), drink plenty of fluids such as prune juice and water (6 to 8 glasses each day unless you have been told otherwise due to heart and kidney problems) and try to keep as active as you can.

If you continue to be constipated, ask your pharmacist to recommend a mild laxative or stool softener. Try to resolve the constipation with natural foods rather than using laxatives (not recommended on a regular basis).

**Antibiotics**
You may be sent home on antibiotics for a specific time period. You will be provided with a prescription and be responsible for filling it from a drug store. Remember to take them as ordered and ask your pharmacist if you have any questions. It is important to complete the entire course of antibiotics despite feeling better. You do not want your body to become resistant to them.

Avoid alcohol while taking antibiotics.
Caring for your incision

Your incision is usually closed and dry after a couple of days. You usually do not need a dressing and can leave the incision open to air. If you have staples or sutures, these can catch on your clothing. If this happens, place a light dressing or covering over top.

The staples to your incision may be removed while you are in hospital. **When the staples are removed**, white paper tapes (steri-strips) will be applied for extra support to your incision. **Do not** remove them yourself.

After 5 to 7 days these tapes will start to become non-sticky and eventually peel and fall off. There is no need to replace them, leave the incision exposed to allow healing.

**Note:** **When you take a shower with steri-strips in place**, they will become wet, which is fine. All you need to do is pat dry them. If the ends of the steri-strips curl up, you can either press down on them or you can trim that portion off with scissors. If majority of the steri-strip has peeled off, you can remove that one strip.

**If you are sent home with staples**, you will be informed who will remove them and when. Normally staples are removed 7 to 10 days after surgery. You can still take a shower with the staples in-place.

Slight numbness, swelling, tingling, bumpiness, firmness and discoloration around the incision site are normal findings after surgery. They will improve with time. If they persist with no improvement, inform your surgeon or family doctor.

**Do not** put creams or lotions onto the wound (such as Polysporin, Vitamin E) unless your surgeon tells you to.

- **Bathing:**
  - You can take a shower but try not to let the water spray directly on your incision for more than a few seconds.
  - You can gently wash your incision with soap and water. **Do not** rub your incision, pat it dry instead with a clean towel. Unless you are told otherwise, you may shower the day after you go home.
  - For 2 weeks after your surgery, **do not soak in a bath**.
- **If you are sent home with drain**, some prefer to sponge bathe until the drain is removed and others choose to shower while the drain is in-place.
- **Do not** take a tub bath until the drain is removed.
Wound care

If you are sent home with a wound that requires dressing changes and/or packing, the nurse clinician will make arrangements for a home care nurse to either visit you at home or for you to visit their ambulatory clinic. The home care nurse will change your dressing, monitor the wound progress and help you with any other health problems you may come across once you are at home. The number and length of visits depends on your needs. The nurse will contact your surgeon if concerned about any aspect of your health.

Please note: the number of times a dressing is changed in the community is different than in the hospital. They use different products.

You may continue to have showers with an open wound. A home care nurse will contact you the morning of the visit with a time. Inform the nurse, that you’ll be taking a shower 30 minutes prior to that time. In doing so, you will prevent yourself from sitting in a wet dressing (cause for infections).

There are two different ways you may take a shower. You may either leave the current dressing on, wrap a piece of plastic saran wrap on top and tape the edges with waterproof tape. This will allow the plastic wrap to be damp and prevent the dressing from being soaked. After your shower, you can remove the plastic wrap and leave the dressing to be changed by the nurse.

Or you can completely remove all the dressings and take a shower with an exposed open wound. Pat it dry with a clean towel and wait for the nurse to come and change the dressing (most prefer the first option).
Drain care

There may be a possibility where you are sent home with a hemovac drain. If this is the case, the nurses will teach you how to manage and care for the drain. You will be shown and provided with written instructions about drain emptying, stripping (to prevent the tube from blocking) and recording the amount of drainage. It is important to make sure the drain is working to prevent a collection of fluid inside the wound area.

Prior to you being sent home, arrangements will be made for a home care nurse to either visit you at home or for you to visit their ambulatory clinic. The number and length of visits depends on your needs. The nurse will help you to care for the drain, change the dressing around the drain site (every 3 to 4 days) and address any other health problems you may come across once you are at home. The drain will either be removed by your surgeon in your follow-up appointment or by the home care nurse when the drainage is a certain amount. Therefore, it is important you empty and record the drainage daily (as taught in the hospital by the nurses). When the drain is removed, some fluid may leak from the opening site. A small dressing will be applied until the drainage stops.

Please note: The home care nurse will not empty the hemovac drain. It is important you learn this within the hospital. The home care nurse will provide any additional teaching that is required and change the dressing every 3 to 4 days. You will be provided with some extra gauze in case you need to change the dressing around the drain site yourself. Additional gauze can be purchased at any medical supply store.

Note: Please refer to the ‘Hemovac Booklet’ for additional information.
**Monitoring output from drain**

Please empty and strip your drain at least **twice a day** and as needed.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Type of Drain</th>
<th>Amount</th>
<th>Colour</th>
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Hemovac drain

Things to remember when the hemovac drain is in place:

• Do not take a tub bath until the drain is removed. You may take a sponge bath or shower. Remember to cover the insertion site of the drain.

• Monitor the drain site for any increased redness, swelling or purulent drainage.

• Monitor the color of the drainage (there should be no persistent bright red or green drainage).

• Notice if your drain has stopped draining and then suddenly drains a lot of fluid, or if your drain is constantly draining and then suddenly stops.

• Secure the drain to prevent it from being pulled on and falling out.

Note: If you notice any of the above, call your home care nurse or surgeon.
**Diet**

Often people have a change in appetite after surgery. It might take some time before your appetite returns to normal. To heal, your body will need extra calories, nutrients, and especially protein.

- Drink at least 6 to 8 glasses (1.5 to 2 L) of water each day (1 glass equals 250 mL).
- Eat foods high in protein such as chicken, beef, fish, eggs, tofu, lentils, dried peas, and beans. Dairy products such as milk, yogurt and cheese are also good sources of protein.
- Try to eat 5 or 6 small meals throughout the day rather than 3 big meals.

If you experience discomfort with chewing or swallowing, try taking the pain medication 30 minutes before your meals. You may want to initially limit tough fibre foods such as tough meat, corn, nuts, popcorn and fruit membranes (skin). Since good nutrition speeds up healing and lessens fatigue, try to eat a well balanced diet.

The diet you follow at home is an important part of your recovery and general health. Your recommended diet is:

- Soft Regular (low cholesterol, low fat)
- Diabetic
- Other ____________________________________________________________________________

If you are sent home on a particular diet texture, please follow this diet regime as directed or until you follow-up with your surgeon.

- If you are not able to eat enough food each day, you can continue drinking 1 or 2 oral nutrition supplement drinks (eg. Boost® or Ensure®) each day.

If you have any questions about your diet, you can call 8-1-1 (HealthLink BC) any time and ask to speak to a dietitian.
Caring for your bowels

You might find your bowels do not work the same way they did before your surgery. It can take a few weeks for your bowels to work normally.

• Constipation
  This can be from your pain medicine, especially if you are taking opioids.
  To prevent constipation:
  - Drink at least 6 to 8 glasses (1.5 to 2 L) of water each day unless you have been told differently because of a medical condition.
  - Include fruits, vegetables, dried peas, beans, lentils and whole grains in your diet each day. These foods are high in fibre.
  - Keep active. Go for a walk every day.
  To treat constipation, talk to your pharmacist about a mild laxative or stool softener.

• Diarrhea
  Persistent severe diarrhea is not normal and should be brought to your surgeon’s attention.
  So you do not become dehydrated, drink 8 to 12 glasses (2 to 2.5 L) of water each day unless your doctor or dietitian has told you limit how much you drink.

Activity and exercise

• Rest
  Rest is important for your recovery. Your body does its healing when you are resting.
  Try to get at least 8 hours of sleep each night.
  Take naps or rest breaks frequently during the day.

• Exercise
  Exercise helps build your strength, improves your circulation, and generally makes you feel better.
  Be careful not to tire yourself out. Slowly increase your activity. Let pain be a general guide to what you do and how often you do it.
These are only general guidelines. Please confirm them with your surgeon.

- Plan your day to allow time for both rest and activity.
- Continue with your deep breathing and coughing exercises.
- Begin with taking short walks. Gradually increase how far you walk.

- For the first 6 weeks after your surgery:
  - Do not lift, push, or pull anything over 4 to 5 kg (10 pounds). This includes carrying children and groceries.
  - Do not do any activities that pull on your incision and abdominal muscles such as vacuuming, raking, painting walls, or reaching for things in high places.

- For at least 8 to 12 weeks after surgery:
  - Do not do anything that puts extra stress on your stomach muscles, such as doing sit-ups.

- Listen to your body. It will tell you when to stop what you are doing and when you are ready to do more. If you notice that you have increased pain, feel shortness of breath, or feel very tired during activity, stop and rest. You may have increased your activity level too fast. When you feel better, you can try again more slowly. If you do not feel better or if you cannot increase your activity, please call your family doctor.

Driving a car

Before you start driving, check with your doctor to make sure it is okay.

- Only drive if you are able to:
  - Put pressure on the brake quickly and without pain.
  - Safely do a shoulder-check.
  - Wear your seatbelt.

- You can drive if you are only taking Plain Tylenol or ibuprofen
  - Do not drive your car while you are still taking opioid pain medicine if it makes you sleepy.

Fly in a airplane anytime.
**Sports**

About 8 to 19 weeks after your surgery and if your surgeon says it is okay, you can go back to playing any sports that do not involve contact such as golf, running, and tennis.

Ask your surgeon when it is safe for you to play contact sports such as hockey or football.

**Sexual activity**

Sexual activity uses the same amount of energy as climbing up two flights of stairs at a normal pace. Ideally, when you can climb 2 flights of stairs without getting tired and short of breath, you can return to your normal sexual activity.

Some people find that their sex drive may be reduced in the early recovery period after surgery. This usually improves as you begin to feel stronger.

**Going back to work**

Always check with your surgeon or family doctor before going back to work.

Some people return to work 3 to 4 weeks after surgery. When you go back to work depends on the type of work you do and the type of surgery you had. Sometimes it can take 6 to 8 weeks or longer for you to recover enough to go back to work.

If you are unsure, ask your family doctor or ask your surgeon during your follow-up appointment.
When to get help

Contact your surgeon or family doctor if:

• Your pain gets worse or does not go away with pain medicine.
• You have a fever over 38.5° C (101.3° F).
• Your incision becomes red, swollen, or hot to touch.
• You notice foul-smelling liquid coming from your incision.
• You start bleeding from your incision.
• You feel sick to your stomach (nauseated) or throw up (vomit) often for more than 24 hours.
• You have diarrhea that lasts for more than 2 days.
• You have difficulties with swallowing resulting in decrease appetite and constant weight loss.
• You notice the hemovac drainage is creamy, milky in color.
• If the hemovac drain is accidentally pulled on and moves out of position or if it completely falls out.
• You experience any pain, aching or redness in your calves or swelling of the legs, go to the nearest emergency room.

If you are not able to contact your surgeon or family doctor, go to the nearest Emergency Department, or call HealthLink BC at 8-1-1 to talk to a registered nurse. Be sure to tell them about your recent surgery.
Additional resources

A patient education video and patient story can be viewed at:

We hope you found the information in this booklet helpful in preparing you for your surgery. If there is information you feel we missed, please let us know.

“Tylenol” is a registered trademark of McNeil Consumer Healthcare, a subsidiary of Johnson & Johnson, Inc. “Voltaren” is a registered trademark of Novartis Pharmaceuticals Canada Inc.
Going home at a glance

Usually you are ready to leave at 10:00 am. Please arrange for your ride to come just before this time.

Your Surgery: ____________________________

Surgery Date: ____________________________

Your Surgeon: ___________________________ Office phone: ____________________________

Follow-up Appointment: ____________________________

Before you leave, do you:
☐ know what to do or who to call if you have a problem?
☐ have a prescription for your medicines (if needed)?
☐ know how to care for your incision and drain (if applicable)?
☐ know how to manage your pain?
☐ know how to prevent constipation?
☐ know how to self-inject your Low Molecular Weight Heparin (LMWH)?
☐ know about your activity levels at home?
☐ have all your personal belongings?

If you have staples or stitches, you need to have these taken out by your family doctor unless you are told otherwise.

Special instructions:

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Hospital language I need explained:
Hospital language I need explained:
My questions: