

# **Transjugular Liver Biopsy**

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## **What is a transjugular liver biopsy?**

A transjugular liver biopsy is a procedure done to take a sample of liver tissue.

The sample is taken from inside the vein in your liver through a thin, long, hollow tube, called a catheter. The catheter is put into the jugular vein in your neck.

By using this approach, loss of blood will be reduced. Any blood that may happen at the biopsy site will go back to your bloodstream and not outside of it.

The sample is sent to a laboratory and looked under a microscope to see if there are any liver problems.

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## **Why do I need to have a transjugular liver biopsy?**

One of the functions of the liver is to allow the blood to make clots to stop bleeding. These are called coagulation factors. If your liver is diseased or damaged, you may not be producing these factors properly. To reduce your risk of bleeding during the procedure, a transjugular approach will be used.

## **What are the risks?**

The risks vary with each person and are related to your health condition. Your doctor will explain your risks to you before the procedure.

Possible risks for liver biopsy include:

- pain
  - fall in blood pressure
  - bleeding
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## Where will I have my liver biopsy?

Your procedure will be done in the Diagnostic Imaging Department, also called X-ray, at:

- McMaster University Medical Centre  
1200 Main Street West  
Hamilton Ontario L8N 3Z5  
905-521-2100, ext. 75279

**OR**

- Hamilton General Hospital  
237 Barton Street East  
Hamilton, Ontario L8L 2X2  
905-521-2100, ext. 46900

**OR**

- Juravinski Hospital  
711 Concession Street  
Hamilton, Ontario L8V 1C3  
905-521-2100, ext. 42257

## Your appointment for your procedure:

Date: \_\_\_\_\_

Time: \_\_\_\_\_

If you have questions, please call the doctor who referred you for this procedure.

## How do I get ready for a transjugular liver biopsy?

### Medications:

If you take blood thinners such as warfarin (Coumadin<sup>®</sup>), heparin, Plavix<sup>®</sup>, Aggrenox<sup>®</sup> or Ticlid<sup>®</sup>:

- Ask the doctor who prescribed these medications for instructions on any changes that are needed before your procedure.
- If you are taking warfarin, your referring doctor will stop this medication several days before your procedure. During this time, you may be switched to another medication.
- If you have not heard from your referring doctor one week before your procedure, please call his or her office.

If you take aspirin or other anti-inflammatory medications such as ibuprofen, Advil<sup>®</sup>, Motrin<sup>®</sup> or Aleve<sup>®</sup>:

- **Stop taking these medications 1 week before your procedure.**
- These medications may increase your risk for bleeding during the procedure.
- You may take Tylenol<sup>®</sup>.

### Going home:

You will need to arrange for someone to take you home from the hospital on the day of the procedure.

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**Interpreter:**

If you are not able to speak or understand English, please bring an interpreter with you.

**The night before your procedure:**

- Do not eat or drink anything after midnight the night before your procedure.

**The morning of your procedure:**

- If you have diabetes, do not take your insulin or diabetes medication. Bring your insulin or diabetes medication and a snack with you.
  - Take all of your usual medications as prescribed, **except for anti-inflammatory medications listed on page 4**, with a sip of water.
  - Bring any medications you may need to take while you are in the hospital.
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## What do I bring to the hospital?

- All of your medications in their original containers from your pharmacy.
- Your Ontario Health Card.
- Your glasses, dentures and/or hearing aid(s).
- Your medical alert/allergy bracelets.
- Leave all other valuables such as money, jewelry and credit cards at home.

We encourage you to bring 1 or 2 family members or friends to be with you before and after the procedure.

## Where do I go when I arrive at the hospital?

If your procedure is at the:

- **Hamilton General Hospital** – go to the reception desk in the Diagnostic Imaging Department on the Main Level.
- **Juravinski Hospital** - go to the reception desk in the Diagnostic Imaging Department on Level “1”.
- **McMaster University Medical Centre** – go to Same Day Surgery on the 2<sup>nd</sup> floor.

Ask at the hospital Information Desk if you need help finding the Diagnostic Imaging Department.

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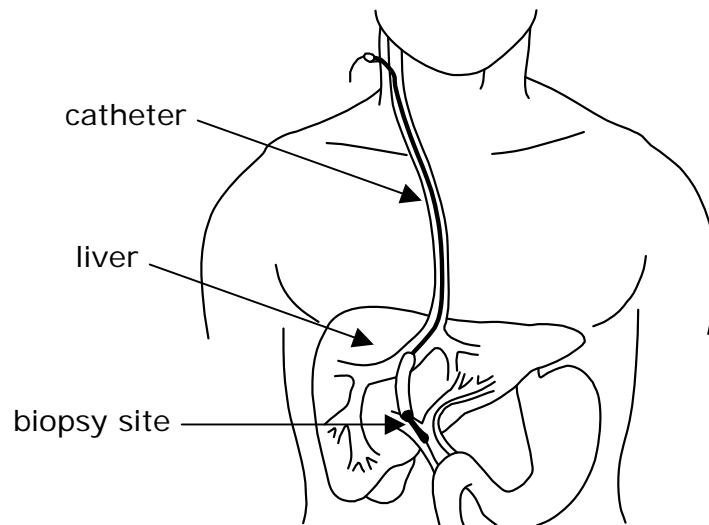
**Before your procedure:**

- Plan to spend 4 to 6 hours at the hospital for your preparation, procedure and recovery.
- You will meet the doctor, called a radiologist, who will do the procedure. The doctor will explain the procedure, answer your questions and ask you to sign a consent form.
- You will change into a hospital gown.
- An intravenous (IV) line will be started in your arm. An intravenous is a thin, plastic tube called a catheter that is put into a vein to give you fluid.
- You may have a blood test to make sure that your blood is clotting normally. Once the results of your blood work have been received and cleared, you will have the biopsy done.
- The doctor may scan your abdomen using an ultrasound to locate the area to biopsy.

**How is the biopsy done?**

- The biopsy is usually done while lying on your stretcher. It takes about ½ hour.
  - The skin on your neck will be cleaned with antiseptic.
  - Sterile sheets will be placed over your face and neck. You will not be able to see the doctor working at your neck.
  - You will receive medication to sedate you through the IV but you will not be completely asleep.
  - A nurse will monitor your blood pressure, heart rate and breathing throughout the procedure.
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- The biopsy area will be injected with a local anesthetic or “freezing”. This will sting for a few moments and then the area will become numb.
- The doctor will then use the ultrasound machine to guide the needle to your jugular vein. A small catheter will be moved forward until it reaches the veins in your liver.
- You may feel a bit of pressure around your neck, but it should not be painful.
- The doctor will use x-rays to help direct him or her to the right spot in your liver. X-ray dye may be used to help outline your veins on the x-ray. If x-ray dye is used, you may feel a warm flush.
- Once the right vein is found in your liver, a needle is inserted through the catheter. A small piece of tissue from your liver will be taken using the needle. Usually more than one sample is taken.



- You will need to stay very still during the biopsy and may need to hold your breath while the samples are taken so you do not move your diaphragm and shift the position of your liver.
  - The catheter will be removed and pressure will be applied to your neck until a clot is formed. A dressing will be applied to your neck.
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## After your liver biopsy

You will be transferred to an area where you will need to rest in bed for at least 3 hours. Your nurse will tell you how long you will need to rest in bed.

You will be able to eat and drink once the procedure is complete.

The doctor may tell you to lie on your side or press a towel against your stomach for the first hour to help the area heal.

You may have some discomfort at the needle site in your neck or in the right side of your abdomen. The nurse will give you Tylenol to help control the pain.

Frequent checks will be made of your:

- blood pressure, heart rate and breathing
- neck and stomach to check for bleeding, swelling and pain

Tell your nurse right away if you notice:

- warmth, dampness or bleeding around the site of the biopsy
- lightheadedness
- changes in your vision

You may be able to go home 4 hours after your procedure.

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**Once at home:**

- Rest comfortably either lying down or in a reclined position.
- You can take all of your usual medications.
- You may have mild discomfort at the needle site, or your right side or in your right shoulder – this is common. If needed you may take Tylenol<sup>®</sup> (avoid aspirin).

Call your family doctor, 911 or go the nearest emergency department if you have:

- pain that will not go away or increases
- increased pain towards your right shoulder
- swelling in the right side of your abdomen
- unusual swelling, bleeding or pain that increases from when you left the hospital
- signs of infection, such as redness or warmth to touch from the biopsy site, fever
- chest pain
- shortness of breath
- dizziness or fainting
- fever

Please bring your “Take Home Sheet” with you so the emergency department will know what test you had done and by whom.

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