What can I expect after the test?

• If you have not received any medicine to help you relax, you can get up and go home after the test.

• If you received medicine to help you relax, before or during the test, you must stay and be monitored until it wears off, usually 1-2 hours. The medicines cause most people to feel tired or have trouble thinking for a short time. You should not drive or return to work after the test.

• The most common discomfort after the test is a feeling of bloating. This usually goes away quickly. Some patients also have a mild sore throat. Most patients are able to eat shortly after the test.

• Most patients do very well with this test and feel fine after. Expect to feel tired and plan to take it easy and relax the rest of the day.

• The doctor will tell you about the results of their exam before you leave the endoscopy unit. If biopsies have been taken or polyps removed, you should call for results in two to three weeks.

Are there any complications linked to endoscopy?

This test is safe and complications are uncommon. The following is a list of possible complications:

• It is possible to breathe in food or fluids during the test. Not eating or drinking before the test will lower the chance of this happening.

• The endoscope can cause a tear or hole in the tissue
In people with cirrhosis, varices develop when blood flow through the liver is blocked by scarring. This increases the pressure inside the portal vein which carries blood from the intestines to the liver. This condition is called portal hypertension.

This can lead to a rise in blood pressure inside the veins of the lower esophagus and stomach. These veins were not designed for the higher pressure, and thus they begin to expand, resulting in varices. Once varices develop, they can:

• stay the same,
• get bigger or
• get smaller (if the liver disease improves).

You may still have portal hypertension even when your blood pressure is normal or low.

What problems are linked to esophageal varices?
Esophageal varices can be serious.

• Without treatment, 25 - 40 percent of people will go through a serious bleeding event (hemorrhage). This can cause major illness or even death.
• About 15 percent of people who bleed from varices will die. This tells us how important it is to prevent bleeding and treat liver disease.
• Signs of varices are not seen until they start to leak or break-open leading to major bleeding.
• Signs of this bleeding can include throwing-up blood, dark-colored or black stools, and lightheadedness. If

test. This is not painful. Oxygen is often given during the test through a small tube that sits under the nose and is fitted around the ears. For safety reasons, dentures should be removed before the test.

How is the test done?

• It takes about 10 - 20 minutes to complete.
• You will be asked to lie on your left side.
• You may be given a medicine to numb the throat (a gargle or a spray). A plastic mouth guard is put between the teeth to prevent damage to the teeth and scope.
• The endoscope (also called a gastroscope) is a special tube (about the size of a finger) that bends and has a small light and camera on one end to look at the inner lining of the upper gastrointestinal tract. Most people have no trouble swallowing the tube after taking medicine to help relax them. Many people sleep during the test; others are very relaxed and are not even aware the test is underway.
• Tissue samples, called biopsies (not painful), may be taken. Special treatments (such as dilation, removal of polyps, treatment of bleeding), may also be done during the test if needed. Air is sent through the scope to open the esophagus, stomach, and intestine, allowing the scope to pass more easily and give the doctor a clear view. The added air may make you feel some bloating or gas. This is not harmful and belching may relieve this feeling. The endoscope does not get in the way with breathing. Taking slow, deep breaths during the test may help you to relax.
• Tell the nurse right away if you notice any signs of low blood sugar like shaking, sweating, blurred vision, extremes hunger, tiredness, trouble thinking or feeling light-headed. A change in your routine can cause your blood sugar levels to be unusually high or low for up to 48 hours.

• Arrange for a friend or family member to stay at the hospital with you while you are having your test and drive you home. The medicines used to help you relax and keep you comfortable during your test can make you drowsy and change the way you think and operate machinery (eg. car, lawnmower) for up to 24 hours.

What can I expect during the test?

• Before the test, the staff will review your medical and surgical history, including your current medicines.

• The test will be explained and you may be asked to sign a consent. Be sure to have all your questions answered before you sign.

• An IV (a needle inserted into a vein in the hand or arm) will be started to give you any medicines you may need to help you relax and prevent any discomfort. You may also have the test with none of these medicines if this is what you wish. Some patients do very well with just a numbing spray to the back of the throat. This will stop the urge to “gag” for a short time making it easier to pass the endoscope.

• Your blood pressure, heart rate, and blood oxygen level will be monitored before, during, and after the test.

Experts suggest that all people with cirrhosis are tested to find out if they have varices. If varices are found, one or more treatments may be suggested to prevent bleeding.

How do you look for varices in the swallowing tube?

A test called endoscopy is the most common way to find varices. Medicine is given before the test to help you relax. The doctor passes a special tube [called an endoscope] through the mouth to the upper part of the stomach. This tube lets the doctor see the lining of swallowing tube and upper stomach.

• If no varices are found, the test is repeated in three years.

• If varices are found, the test is repeated every

NOTE

Bleeding varices need emergency medical help. If not looked after quickly, a large amount of blood can be lost and there is a major chance of dying. If one or more signs are present, this is an EMERGENCY. Call 911 or go immediately to the emergency room.

Tell the nurse right away if you notice any signs of low blood sugar like shaking, sweating, blurred vision, extremes hunger, tiredness, trouble thinking or feeling light-headed. A change in your routine can cause your blood sugar levels to be unusually high or low for up to 48 hours.
eighteen months to check on the size. If they are large, a medicine is given to lower the chance of bleeding. If this is needed, we will explain how this medicine will help you and any problems that may be linked to the medicine. If you are doing well with the medicine, there will be no need to repeat the test. The timing of repeat endoscopy depends how the varices look, the cause of the liver disease, and the person’s overall health.

How do I get ready for the test?

- You will be given more specific details about how to get ready before your test date. Please call the health care provider's office or the endoscopy unit if there are questions.

- Do not eat or drink anything for eight hours before the test. It is important for your stomach to be empty so the doctor can see the entire area. It will also prevent the chance that food or fluid will be vomited into the lungs during the test.

- If the test is planned for the afternoon, you may have a clear liquid breakfast before 8:00 am then nothing to eat or drink after that time.

<table>
<thead>
<tr>
<th>What are Clear Liquids?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black tea or coffee (No milk).</td>
</tr>
<tr>
<td>Water</td>
</tr>
<tr>
<td>Clear juice like apple or cranberry.</td>
</tr>
<tr>
<td>Jell-o Gelatin (Not the pudding!)</td>
</tr>
<tr>
<td>Clear broth/bouillon</td>
</tr>
</tbody>
</table>

- Your medicines may need to change before your test. How much you take may change or you may be asked to stop some for a short period of time. Ask your doctor or nurse about this before your test. Expect these medicine to change:

  - STOP all Aspirin or non-steroidal anti-inflammatory (for example: Motrin, Advil, or Ibuprofen ) medicines for 5 days before and 2 days after the test.

  - If you are on a blood thinner like warfarin (coumadin) or Plavix, call the office 2 weeks before your test and ask when to stop them and for how long.

  - If you take insulin, take one half of your morning dose. DO NOT take the afternoon dose. You can have it after the test.

  - If you take pills for your diabetes, take your morning dose with your usual breakfast.
eighteen months to check on the size. If they are large, a medicine is given to lower the chance of bleeding. If this is needed, we will explain how this medicine will help you and any problems that may be linked to the medicine. If you are doing well with the medicine, there will be no need to repeat the test. The timing of repeat endoscopy depends how the varices look, the cause of the liver disease, and the person’s overall health.

How do I get ready for the test?

- You will be given more specific details about how to get ready before your test date. Please call the health care provider’s office or the endoscopy unit if there are questions.
- **Do not eat or drink anything for eight hours before the test.** It is important for your stomach to be empty so the doctor can see the entire area. It will also prevent the chance that food or fluid will be vomited into the lungs during the test.
  - If the **test is planned for the afternoon**, you may have a clear liquid breakfast **before 8:00 am** then nothing to eat or drink after that time.

**What are Clear Liquids?**

- Black tea or coffee (No milk).
- Water
- Clear juice like apple or cranberry.
- Jell-o Gelatin (Not the pudding!)
- Clear broth/bouillon

- Your medicines may need to change before your test. How much you take may change or you may be asked to stop some for a short period of time. Ask your doctor or nurse about this before your test. Expect these medicine to change:
  - **STOP** all Aspirin or non-steroidal anti-inflammatory (for example: Motrin, Advil, or Ibuprofen) medicines for 5 days before and 2 days after the test.
  - If you are on a **blood thinner like warfarin (coumadin) or Plavix**, call the office 2 weeks before your test and ask when to stop them and for how long.
  - If you take **insulin**, **take one half** of your morning dose. **DO NOT** take the afternoon dose. You can have it after the test.
  - If you take **pills for your diabetes**, take your morning dose with your usual breakfast.
What can I expect during the test?

- Before the test, the staff will review your medical and surgical history, including your current medicines.

- The test will be explained and you may be asked to sign a consent. Be sure to have all your questions answered before you sign.

- An IV (a needle inserted into a vein in the hand or arm) will be started to give you any medicines you may need to help you relax and prevent any discomfort. You may also have the test with none of these medicines if this is what you wish. Some patients do very well with just a numbing spray to the back of the throat. This will stop the urge to "gag" for a short time making it easier to pass the endoscope.

- Your blood pressure, heart rate, and blood oxygen level will be monitored before, during, and after the test.

How do you look for varices in the swallowing tube?

A test called endoscopy is the most common way to find varices. Medicine is given before the test to help you relax. The doctor passes a special tube [called an endoscope] through the mouth to the upper part of the stomach. This tube lets the doctor see the lining of the swallowing tube and upper stomach.

- If no varices are found, the test is repeated in three years.

- If varices are found, the test is repeated every 6 months.

Bleeding varices need emergency medical help. If not looked after quickly, a large amount of blood can be lost and there is a major chance of dying. If one or more signs are present, this is an EMERGENCY. Call 911 or go immediately to the emergency room.
In people with cirrhosis, varices develop when blood flow through the liver is blocked by scarring. This increases the pressure inside the portal vein which carries blood from the intestines to the liver. This condition is called portal hypertension.

This can lead to a rise in blood pressure inside the veins of the lower esophagus and stomach. These veins were not designed for the higher pressure, and thus they begin to expand, resulting in varices. Once varices develop, they can:

- stay the same,
- get bigger or
- get smaller (if the liver disease improves).

You may still have portal hypertension even when your blood pressure is normal or low.

What problems are linked to esophageal varices?

Esophageal varices can be serious.

- Without treatment, 25 - 40 percent of people will go through a serious bleeding event (hemorrhage). This can cause major illness or even death.
- About 15 percent of people who bleed from varices will die. This tells us how important it is to prevent bleeding and treat liver disease.
- Signs of varices are not seen until they start to leak or break-open leading to major bleeding.
- Signs of this bleeding can include throwing-up blood, dark-colored or black stools, and lightheadedness. If

How is the test done?

- It takes about 10 - 20 minutes to complete.
- You will be asked to lie on your left side.
- You may be given a medicine to numb the throat (a gargle or a spray). A plastic mouth guard is put between the teeth to prevent damage to the teeth and scope.
- The endoscope (also called a gastroscope) is a special tube (about the size of a finger) that bends and has a small light and camera on one end to look at the inner lining of the upper gastrointestinal tract. Most people have no trouble swallowing the tube after taking medicine to help relax them. Many people sleep during the test; others are very relaxed and are not even aware the test is underway.
- Tissue samples, called biopsies (not painful), may be taken. Special treatments (such as dilation, removal of polyps, treatment of bleeding), may also be done during the test if needed. Air is sent through the scope to open the esophagus, stomach, and intestine, allowing the scope to pass more easily and give the doctor a clear view. The added air may make you feel some bloating or gas. This is not harmful and belching may relieve this feeling. The endoscope does not get in the way with breathing. Taking slow, deep breaths during the test may help you to relax.
Testing for Esophageal Varices
[Portal Hypertension]

Cirrhosis is a disease of the liver. The liver becomes very scarred from many years of ongoing injury. The most common causes of cirrhosis include:
- longstanding drinking of alcohol,
- chronic (long term) hepatitis B or C, and
- fatty liver due to obesity.

Varices are expanded blood vessels in the esophagus. The esophagus is the swallowing tube that connects the mouth and stomach. Esophageal varices are a common problem linked to advanced cirrhosis.

What are esophageal varices?
Varices are expanded blood vessels that develop most often in the esophagus and stomach.

Are there any complications linked to endoscopy?
This test is safe and complications are uncommon. The following is a list of possible complications:
- It is possible to breathe in food or fluids during the test. Not eating or drinking before the test will lower the chance of this happening.
- The endoscope can cause a tear or hole in the tissue

What can I expect after the test?
- If you have not received any medicine to help you relax, you can get up and go home after the test.
- If you received medicine to help you relax, before or during the test, you must stay and be monitored until it wears off, usually 1-2 hours. The medicines cause most people to feel tired or have trouble thinking for a short time. You should not drive or return to work after the test.
- The most common discomfort after the test is a feeling of bloating. This usually goes away quickly. Some patients also have a mild sore throat. Most patients are able to eat shortly after the test.
- Most patients do very well with this test and feel fine after. Expect to feel tired and plan to take it easy and relax the rest of the day.
- The doctor will tell you about the results of their exam before you leave the endoscopy unit. If biopsies have been taken or polyps removed, you should call for results in two to three weeks.
being looked at. This is serious, but only happens rarely.

- Bleeding can happen if a tissue sample is taken or polyps are removed. Bleeding is usually minor and stops quickly on its own or can be easily controlled.
- Reactions to the relaxing medicines given are possible. The doctors and nurses will ask you if you have any allergies or reactions to medicines and about health problems such as heart, lung, kidney, or liver disease. These details will help the team make sure that your test is done as safely as it can be.

Where can I get more information?
Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

NOTE: Report these signs right away:

- Severe belly pain (more than gas cramps).
- A firm, swollen belly.
- Vomiting [throwing-up].
- Fever.
- Trouble swallowing or severe throat pain.
- A crunching feeling under the skin of the neck.
Testing for Esophageal Varices [Portal Hypertension]

Looking for more health information?
Contact your local public library for books, videos, magazine articles and online health information.
For a list of public libraries in Nova Scotia go to www.publiclibraries.ns.ca

Capital Health promotes a smoke-free and scent-free environment.
Please do not use perfumed products. Thank you!
Capital Health, Nova Scotia www.cdh.nshealth.ca

Prepared by: Geri Hirsch and Carla Burgess, Halifax, NS ©
Designed and Printed by: Capital Health Audio Visual and Printing Departments
Illustrations by: LifeART Health Care 1 & Superanatomy 1, Copyright © 1994, TechPool Studios Corp. USA

The information in this brochure is provided for information and education purposes only.
The information is not intended to be and does not constitute healthcare or medical advice.
If you have any questions, please ask your healthcare provider.

WI85-1458 Created July 2012
The information in this pamphlet is to be updated every 3 years.