
Upper gastrointestinal endoscopy and variceal banding

1. What is an upper gastrointestinal endoscopy and variceal banding (or glueing)?

An upper gastrointestinal (GI) endoscopy is where the doctor uses an instrument called an endoscope to look at the inside lining of your oesophagus (food pipe), stomach and duodenum (first part of the small intestine).

Varices are large veins that appear in the oesophagus and stomach. These may rupture and cause significant bleeding requiring endoscopic treatment. Banding of oesophageal varices involves placement of rubber bands over the varices at the time of endoscopy. Glueing is usually reserved for stomach varices and involves injecting glue into them. This will cause the blood in the varices to clot and eventually the clotted vein will disappear. It is not possible to know which treatment is necessary until the endoscopy is performed.

This procedure is usually repeated every 2 – 3 weeks to see if other bands are needed. After about 3 sessions the varices are usually sufficiently treated.

An endoscope is a long, thin, flexible tube with a small camera and light attached which allows the doctor to see the pictures of the inside of your gut on a video screen. The scope bends, so that the doctor can move it around the curves of your gut. The scope also blows air into your stomach; this expands the folds of tissue in your stomach so that the doctor can see the stomach lining better. As a result, you might feel some pressure, bloating or cramping during the procedure.

You will lie on your left side, and the doctor will pass the endoscope into your mouth and down your oesophagus (food pipe) stomach and duodenum (first part of the small intestine). Your doctor will examine the lining again as the endoscope is taken out.

The endoscope does not cause problems with your breathing.

You should plan on 2 to 3 hours for waiting, preparation and recovery. The procedure itself usually takes anywhere from 10 to 15 minutes.

If the doctor sees anything unusual or wants to test for bacteria in the stomach they may need to take a biopsy (small pieces of tissue) for testing at Pathology.

2. Will there be any discomfort? Is any anaesthetic needed?

The procedure can be uncomfortable and to make the procedure more comfortable a sedative injection or a light anaesthetic can be given.

If you prefer, it can be done without sedation.

Before the procedure begins the doctor;

- will put a drip into a vein in your hand or forearm. This is where the sedation or anaesthetic is injected and
- may spray your throat with a numbing agent that will help prevent gagging.

3. What is sedation?

Sedation is the use of drugs that give you a 'sleepy-like' feeling. It makes you feel very relaxed during a procedure that may be otherwise unpleasant or painful.

You may remember some or little about what has occurred during the procedure.

Anaesthesia is generally very safe but every anaesthetic has a risk of side effects and complications. Whilst these are usually temporary, some of them may cause long-term problems.

The risk to you will depend on:

- personal factors, such as whether you smoke or are overweight.
- whether you have any other illness such as asthma, diabetes, heart disease, kidney disease, high blood pressure or other serious medical conditions

4. What are the risks of this specific procedure +/- sedation?

There are risks and complications with this procedure. They include but are not limited to the following.

Common risks and complications include:

- Nausea and vomiting.
- Faintness or dizziness, especially when you start to move around.
- Headache.
- Pain, redness or bruising at the sedation injection site (usually in the hand or arm).
- Muscle aches and pains.
- Chest pain and difficulty in swallowing for up to 2 weeks after the procedure.

Uncommon risks and complications include:

- Bleeding from the oesophagus (food pipe), or stomach where a varix has been banded. This can be serious just as the bleeding due to untreated varices can be. Once the course of banding is completed the risk of bleeding of any sort is greatly reduced.
- Heart and lung problems such as heart attack or vomit in the lungs causing pneumonia. Emergency treatment may be necessary.
- Bacteraemia (infection in the blood). This will need antibiotics.
- Damage to your teeth or jaw due to the presence of instruments in your mouth.
- An existing medical condition that you may have getting worse.
- Death as a result of complications to this procedure is uncommon.

Rare risks and complications include:

- A hole (perforation) in the oesophagus can accidentally occur. This can cause a leak of stomach contents into the chest. If a hole is made, you will be admitted to hospital for further treatment which may include surgery.
- Glue, if used, can move into the blood vessels in the lungs causing breathing difficulties. This may need antibiotics. The glue cannot be removed and will remain in the lungs. Glue can also spread into blood vessels in other parts of the body such as the bowel and the brain and could cause serious damage.

- Your procedure may not be able to be finished due to problems inside your body or because of technical problems.
- 'Dead arm' type feeling in any nerve, due to positioning with the procedure – usually temporary.
- Anaphylaxis (severe allergy) to medication given at the time of procedure.

5. Your responsibilities before having this procedure

You are less at risk of problems if you do the following:

- Bring all your prescribed drugs, those drugs you buy over the counter, herbal remedies and supplements and show your doctor what you are taking. Tell your doctor about any allergies or side effects you may have.
- Do not drink any alcohol and stop recreational drugs 24 hours before the procedure. If you have a drug habit please tell your doctor.
- If you take Warfarin, Persantin, Clopidogrel (Plavix or Iscover), Asasantin or any other drug that is used to thin your blood ask the doctor ordering the test if you should stop taking it before the procedure as it may affect your blood clotting. Do not stop taking them without asking your doctor.
- Tell your doctor if you have;
 - had heart valve replacement surgery.
 - received previous advice about taking antibiotics before a dental treatment or a surgical procedure. If so, you may also need antibiotics before the colonoscopy.

6. Preparation for the procedure

Your stomach must be empty for the procedure to be safe and thorough, so you will not be able to eat or drink anything for at least six hours before the procedure.

7. What if the doctor finds something wrong?

Your doctor may take a biopsy (a very small piece of the stomach lining) to be examined at Pathology.

- Biopsies are used to identify many conditions even if cancer is not thought to be the problem.

8. What if I don't have the procedure?

Your symptoms may become worse and the doctor will not be able to give you the correct treatment without knowing the cause of your problems.

9. Are there any other tests I can have instead?

Your doctor could discuss with your ways of managing your condition. Usually treatments are reserved for situations where banding fails.

10. What can I expect after this procedure?

You will remain in the recovery area for about 2 hours until the effect of the sedation wears off.

You will need to be on a soft diet if bands were applied.

Your doctor will tell you when you can eat and drink. Most times this is straight after the procedure.

Your throat may feel sore and you might have some cramping pain or bloating because of the air entering the stomach during the procedure.

You will be told what was found during the examination or you may need to come back to discuss the results, and to find out the results of any biopsies that may have been taken.

You will need to take an acid medication like SOMAC for a few weeks after if bands were applied to assist with healing of the area.

11. What are the safety issues?

Sedation will affect your judgment for about 24 hours. For your own safety and in some cases legally;

- Do **NOT** drive any type of car, bike or other vehicle. You must be taken home by a responsible adult person.
- Do **NOT** operate machinery including cooking implements.
- Do **NOT** make important decisions or sign a legal document.
- Do **NOT** drink alcohol, take other mind-altering substances, or smoke. They may react with the sedation drugs.
- Have an adult with you on the first night after your surgery.

Notify the hospital Emergency Department straight away if you have;

- severe ongoing abdominal pain
- trouble swallowing
- a fever
- sharp chest or throat pain
- have redness, tenderness or swelling for more than 48hours where you had the injection for sedation (either in the hand or arm)