

# Balloon-Occluded Retrograde Transvenous Obliteration (BRTO)

## *What You Need to Know and Do*

Balloon-occluded retrograde transvenous obliteration (BRTO) is a minimally invasive procedure used to treat gastric (stomach) varices. Varices are stretched (dilated) blood vessels.

Gastric varices are caused by increased pressure in the liver in patients with liver disease. The increased pressure may cause the blood vessels to burst (rupture) and bleed.

BRTO is a procedure that involves blocking the dilated vessels in order to lower the risk of rupture and bleeding.

### What should I do before my appointment?

You should not eat or drink 8 hours before the procedure. You may take your routine medicine the morning of your procedure with small sips of water.

You will have an evaluation with the anesthesia team before your procedure.

### When should I arrive for my appointment?

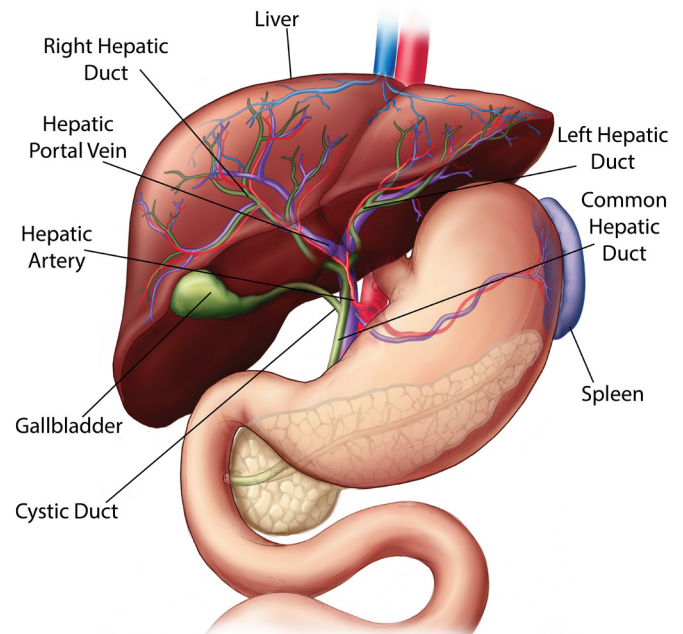
You will need to arrive at least 90 minutes before your appointment time to check in and complete paperwork.

### What happens during my procedure?

When you arrive for your procedure, an IV (intravenous) line will be put in your arm. This line will give you fluids and medicine to prepare your body.

You will be given general anesthesia. This means you will be asleep for the entire procedure.

After you are asleep, the doctor will put a small flexible tube (catheter) inside the vein in your thigh or neck. The doctor uses fluoroscopy (a type of imaging) throughout the procedure for guidance.



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The catheter is guided to the veins between the left kidney and the stomach. Once the catheter is in place, a plug will be placed in the vein or a balloon will be inflated to block blood flow.

A medicine is injected through the tube into the dilated vessels. The medicine will cause the vein to become inflamed. This will lead to scar tissue. The scar tissue will help block the dilated vessels.

The doctor will make sure that blood flow to the dilated vessels has stopped. Then the balloon will be deflated and the catheter will be removed.

The procedure usually takes 2 to 4 hours.

### What happens after my procedure?

You will stay overnight in order to make sure you have a good recovery.

You will have a follow-up CT scan 1 month after the procedure. The radiology coordinator will let you know when it is scheduled.

### What are the side effects of the procedure?

You may have some bleeding or get an infection. We will give you antibiotics before the procedure to help prevent infection.

You may have fever and flu-like symptoms including nausea, vomiting, and pain. This is a normal part of the process the body goes through after this type of procedure.

In rare cases, the blockage of blood to the gastric varices can further increase the pressure on the liver.

### Who can I contact with questions?

For any problems, concerns, or questions, call Interventional Radiology at (615) 343-1972 or (615) 875-7982.

After hours (between 3:30 p.m. and 7:00 a.m. on weekdays, and on weekends and holidays), call (615) 322-5000. Ask for the Interventional Radiology Fellow on call.

If you have an emergency, go to the nearest Emergency Room or call 9-1-1.