Biliary Drain

What is a biliary drain?

A biliary drain is a tube to drain bile from your liver. It is put in by a doctor called an Interventional Radiologist. The tube or catheter is placed through your skin and into your liver. You may also hear your drain called a biliary stent or biliary catheter.

The liver makes bile, which helps with the digestive process. The ducts carry the bile from the liver to the bowel. When the bile ducts are blocked, a biliary drain must be placed or the bile will back up causing a yellow skin color (jaundice), dark urine, light stools, nausea, poor appetite and sometimes itching. The biliary drain will relieve these signs by draining the bile from the liver.

A biliary drain may be placed because of leakage or a hole that forms in the bile duct. This leakage can cause severe pain or infection. Biliary drains also may be placed before surgery or for removal of a bile duct stone.

- Your doctors will discuss any risks of this procedure with you before it is done.

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Learn more about your health care.
• The catheter or drain is about the size of an IV tube. It may be connected to a drainage bag or a cap is placed over the end of the drain. The use of a drainage bag or cap is determined by your doctor.

• How long you will need your drain depends on why it was placed. Your doctors will discuss with you how long you are likely to need your drain.

• The two most common problems or risks of catheter placement are bleeding and infection, but these do not happen often. Your doctor will talk with you about these potential risks before the procedure.

For placement of the catheter, tell your doctor if you are allergic to x-ray or contrast dyes, or iodine.

How do I prepare for a biliary drain?
There are things you need to do before your drain is placed.

Medicines
• Ask your doctor if you should make any changes to your medicines before this procedure.

• If you take a blood thinner medicine, such as Plavix, Coumadin or aspirin, you may need to stop the medicine before you have this procedure. Check with your doctor about when to stop the medicine. If you have a stent, be sure to talk with the doctor who placed the stent before stopping blood thinner medicines.

• If you have diabetes and take metformin (Glucophage, Glucophage XR) or glyburide/metformin (Glucovance), or any medicine with metformin in it:
  ▶ Do not take the medicine the morning of the procedure.
  ▶ Do not take the medicine for the first 48 hours after the procedure.
  ▶ Restart the medicine on the third day after the procedure.

• If you take insulin for diabetes, check with your doctor about adjusting your insulin dose.

• If you have medicines to take the morning of the procedure, take them with small sips of water.

• Bring all your medicines to the hospital.
Eating

- **Do not eat after midnight** on the night before your procedure. You may have sips of water with your medicines.

How will the drain be placed?

The Interventional Radiology team will talk to you before the procedure and answer any questions you may have. Placing your biliary drain will take at least 2 hours.

- Blood will be taken for testing.
- An IV will be put in your arm and you will be given an antibiotic to reduce your risk of infection.
- You will also be given medicine to make you sleepy and to reduce pain. The skin and the deep tissues will be numbed with medicine so you will feel pressure during the procedure, but not pain.
- The doctor places a needle into the bile duct. Then a wire is put through the needle into the duct and the needle is removed. The catheter or drain is placed over the wire and then the wire is removed, leaving the drain in place.
- The signs you were having before placement of the biliary drain will slowly go away. You may be sore for 7 to 10 days after the drain is placed.

What happens after the procedure?

- **If you are an inpatient,** you will go back to your hospital room where your nurse will be checking your vital signs and the drain. You may feel sleepy, tired or dizzy for several hours after the procedure from the medicines. Your nurse will tell you when you can eat and get out of bed.
- **If you are an outpatient,** you will need someone to drive you home after your drain is placed. You may feel sleepy, tired or dizzy for several hours from the medicine you were given.
Your Care at Home

- Go home and rest for the remainder of the day.
- Do not drive or work around any mechanical equipment, power tools or appliance or sharp objects for 24 hours after your drain was put in place.
- Avoid making any major life or legal decisions for at least 24 hours because you may not be able to think clearly or remember your actions.
- Eat light foods, like jello, pudding, soups, juices and other liquids for the rest of first day. Start back on your usual diet as tolerated the next day.
- Take your usual medicines when you get back home.
  - If you take metformin (Glucophage, Glucophage XR) or glyburide/metformin (Glucovance) for diabetes, do not take that medicine for 48 hours after the catheter placement. This is because it could react badly with the dye used to during the catheter placement. The dye clears from your body in a day or two. Drinking water helps to rid the dye from your body. Restart this medicine on the third day after the procedure.
- Your IV site may be tender for a day or two. If it gets red, hard, swollen, or more tender, use warm moist compresses on it for 20 minutes every hour. If the site gets redder, swollen or tender after 2 or 3 days, call your doctor.
- Some bruising or tenderness at the site of the drain is common. It may be very mild bruising to black and blue, and it may be very small to about the size of a golf ball. The site may also feel sore or tender. These signs may last for 2 weeks or longer. Warm moist compresses applied to the site for 20 minutes 2 or 3 times a day may help. Be sure to cover your dressing with plastic wrap first to keep it dry.
- Check your temperature each day while you have the drain in place. Write your temperature down so you have a record.
When to Call the Doctor
Outpatients: Call (614) 293-2773 or go to the nearest Emergency Room if you have:

- Active bleeding at the drain site that does not stop after you put finger pressure on it
- More pain or swelling at or around the drain site
- Your temperature is greater than 101 degrees Fahrenheit, with or without chills

Skin care and showering
- Keep the drain site dry.
- You may take a shower 48 hours after the drain is placed but you need to keep the site dry.
- Before you shower, cover the drain dressing and the skin around the site with plastic wrap taped to your skin. You must cover the site for 14 days after placement.
- After 14 days, if the site has healed, you can shower without the dressing and plastic wrap. After the end of your shower, use a clean washcloth and liquid antibacterial soap like Dial with water to clean the site. Then rinse the site well with plain water. Pat the drain site gently with a towel to dry.
- Bathing in a tub, using a hot tub or swimming is not recommended as long as you have the drain in place.

Dressing change
Keep the skin around your drain clean and covered with a 4x4 gauze dressing. The gauze dressing should be changed every other day. You may need to change it more often if it becomes wet, loose, or dirty.

Steps
1. Gather your supplies.
   - 2 Pairs non-sterile gloves
   - 3 Cotton swabs or clean washcloths
   - Water and liquid antibacterial soap like Dial
- 4X4 gauze pad
- Paper tape
- Small plastic garbage bag

2. Wash your hands with soap and water for 15 seconds. Rinse and towel dry.


4. Carefully remove the old dressing to avoid pulling on the drain. Check the site for signs of infection such as soreness, redness, drainage or odor. If you have any of these signs, clean the skin site and change the dressing more often for one week. If the signs do not improve, call your doctor.

5. Remove the non-sterile gloves and wash your hands again. Then put on the other clean pair of gloves.

6. Clean the skin around the drain site with a cotton swab or clean washcloth wet with water and antibacterial soap. Use a circular motion moving outward from the center to about 3 inches. Repeat this step with the second swab or clean washcloth.

7. Use another swab or clean washcloth that is just wet with water and clean site again. Let the skin air dry. Do not fan it to speed the drying because that will put more germs near the site.

8. Apply the sterile 4x4 gauze pad. Be careful not to touch the pad where it will be placed over the drain.

9. Tape over the gauze pad with the paper tape so the gauze is completely covered.

10. Throw the old dressing, gloves, used swabs and wrappings in the plastic bag. Remove the gloves and put them in the bag. Tie the bag shut and put it in a trash can.

11. Wash your hands with soap and warm water. Rinse and towel dry.
Flushing your biliary drain

A doctor’s order is needed to flush a biliary drain

- If you feel any pressure as you put the fluid in, stop.
- Never use the syringe to pull the fluid back out of the drain because it could damage the liver.

Steps

1. Gather your supplies. Place them on a table that has been washed with soap and water and dried with a clean towel.
   - Prefilled 10 ml (milliliter) syringe of 0.9% normal saline
   - Alcohol pads or cotton balls soaked with rubbing alcohol
   - Non-sterile gloves

2. Wash your hands with soap and water. Rinse and towel dry.

3. Put on non-sterile gloves if you are a caregiver for the person with the drain.

4. Get the prefilled saline syringe.

5. If you have a stopcock and a drainage bag, turn the flange of the stopcock “Off” towards the drainage bag.

6. Clean the injection port on the drain tube or stopcock with alcohol.

7. Insert the saline syringe into the injection port.

8. Push the plunger of the syringe slowly and evenly to put the saline into the drain. If you feel any pressure or resistance, stop and remove the syringe from the port. Call your doctor.

9. Once the saline is in, take the syringe out of the port. If a stopcock is used, turn the flange of the stopcock “Off” to the injection port before removing the syringe.

10. Throw the syringe away in your trash.
Care of your drainage bag

- Empty your drainage bag as often as needed when it is about 2/3 full. Turn the blue knob at the bottom of the bag and drain it into a measuring container. Record the amount of drainage each time.

- You will be sent home with an extra drainage bag to use in case the bag would leak or the bag or tubing is damaged. You should not clean the drainage bag.

When to Call the Doctor

Anytime you have a question or concern about your biliary drain care or to schedule a drain tube change, call the Interventional Radiology office at 614-293-2773.

If you need to contact Interventional Radiology in the evening or on a weekend, please call 614-293-8000. Ask the operator to page the Interventional Radiology resident on call.

Call right away if you have:

- Fever greater than 101 degrees F, with or without chills
- Severe pain or swelling around the drain site
- Unusual color or odor to the bile fluid
- Drain becomes dislodged or broken
- Drain tube begins to leak or leaks around the drain