

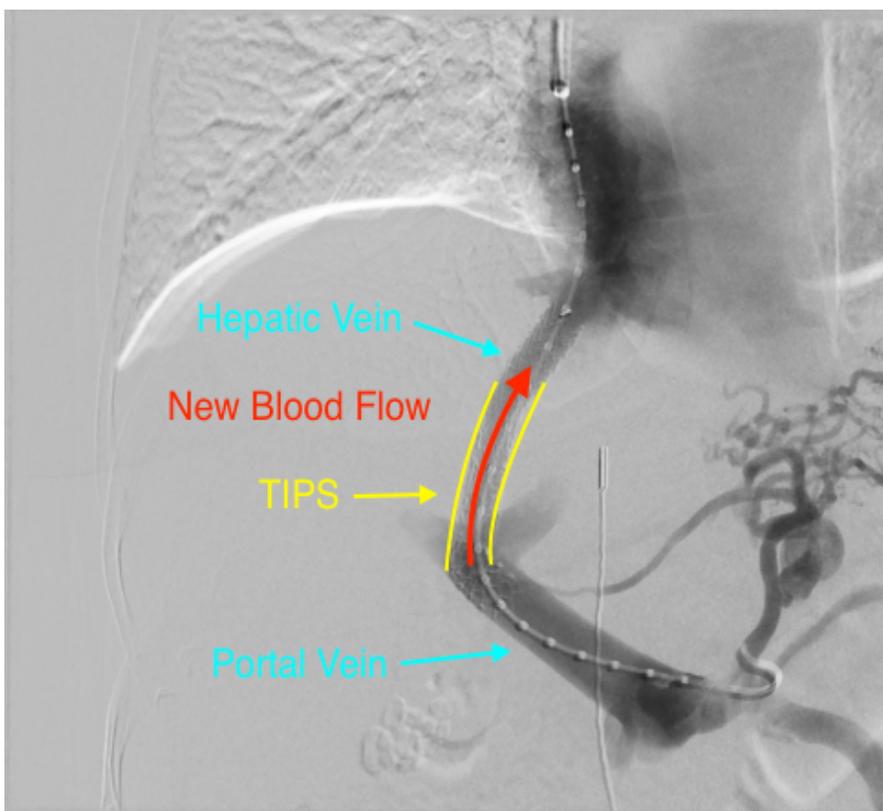


TIPS (Transjugular Intrahepatic Portosystemic Shunt)

Normally, blood flows into your liver via the portal vein and leaves through the hepatic vein. However, when scarring occurs in your liver, it can make it difficult for blood to pass through. This causes blood to back up behind the liver, leading to various complications such as bleeding and ascites due to the increased pressures upstream. The TIPS procedure creates a shunt directly between your portal vein and hepatic vein in order to allow blood to bypass the scarred liver and reduce congestion.

Why am I getting this procedure? (Indications)

When blood backs up behind the liver due to obstructions such as cirrhosis, portal hypertension ensues. Blood that would normally flow unhindered through the liver now has significant difficulty getting through to the hepatic vein. This causes upstream congestion, and can result in what are known as varices, which are abnormally dilated veins. Because these veins are under increased pressure from impeded blood flow, they are prone to breaking which can result in significant bleeding. Additionally, the upstream congestion and pressure can lead to the build-up of fluid in the abdomen, which is known as ascites. The TIPS procedure alleviates portal hypertension and can reduce the risk of variceal bleeding and ascites.



Who shouldn't get this procedure (Contraindications)

Patients with contrast allergies, bleeding disorders, and bloodstream infections may be cautioned against having this procedure.

Benefits

Benefits include decreased portal pressures allowing for reduced risk of variceal bleeding and ascites formation.

Risks

The liver acts as a filter to clear out toxins in your blood. Because the TIPS procedure shunts blood around your liver, there is a risk of increased confusion due to toxin build-up in your blood. Other risk factors include bleeding, infection, inadvertent injury to other nearby structures, and liver injury because of diverted blood flow.

What to Expect

BEFORE

Do I need to fast for the procedure?

Yes. You must stop eating and drinking 6 hours before the procedure.

Do I need to stop any medications?

Yes. You should stop any anticoagulation medications (blood-thinners) before this procedure; though you will receive further details regarding this.

How else can I prepare?

Most patients spend at least one night in the hospital and sometimes more. Be sure to arrange transportation home for when you are expected to discharge.

DURING

Duration of procedure: 30 minutes to 4 hours

Level of anesthesia: General anesthesia.

How is the procedure done?

- Before the procedure you will be taken back to the angiography room by our staff, which will look similar to an operating room.
- Once in the room, the team will do a team pause, where you will be asked to confirm your name, date of birth, last time you ate and any allergies.
- You will be receiving general anesthesia for this procedure, meaning you will be given medications to keep you asleep.
- In addition, you will have a breathing tube placed into your throat to facilitate breathing.
- This entire procedure will be monitored by a trained anesthesiologist. You may receive medication in the angiography room.
- At this time, an area of your upper thigh and neck will be prepped for the procedure.
- This preparation includes sterilizing the area with sterile soap and covering the other parts of the body with a large blue sterile sheet.
- The doctor will then use ultrasound to assess the exact location of the vessel to be used as the entry point for the procedure.

- The doctor will then use a needle to access the appropriate blood vessels in both your neck and upper thigh.
- After accessing the appropriate vessels, your doctor will then introduce wires and thin tubes into these vessels to go to your liver.
- Your doctor is controlling all of the movements, which are monitored by live-images taken by the x-ray machine.
- At various points during the procedure, your doctor will inject contrast fluids into your vessels, which makes them easier to see and navigate through on the x-ray machine.
- From the access points in your neck and upper thigh, your doctor will move wires and catheters to your hepatic and portal veins.
- Your doctor will then begin forming a tract between the hepatic and portal veins using special wires, catheters, balloons and stents.
- The tract will be adjusted to fit the layout of your vessels.
- Once adjusted, the TIPS will be finalized, creating a shunt to divert blood from your portal vein to your hepatic vein.
- In doing so, your portal pressures will be significantly lowered.
- Following TIPS formation, your doctor will remove all instruments from your vessels.
- Your doctor will then hold pressure on your access site for 10-15 minutes in order to stop any residual bleeding.
- Your nurse will then wheel you on your bed to the PCU (Procedural Care Unit) to be monitored.

AFTER

Expected time of discharge: Most patients spend at least one night in the hospital and sometimes more. Your doctor will let you know how long this may be.

Follow-up: You will need to obtain routine labs in 3-7 days with your primary care physician or hepatologist. You will need an abdominal ultrasound with Doppler at week 3 and again at the 3, 6 and 12 month marks after your procedure. If at any point after the procedure you become increasingly confused, or have worsening abdominal pain or jaundice, you should contact your health care provider.

Post-procedural care: Avoid submerging your incision site in water for 1 week. During this time, it is important to keep the wound site clean and dry. Make sure to change the dressings daily, and more frequently if they become soiled. If you would like, you may leave the incision open to air. You may remove the neck dressing after 24 hours.