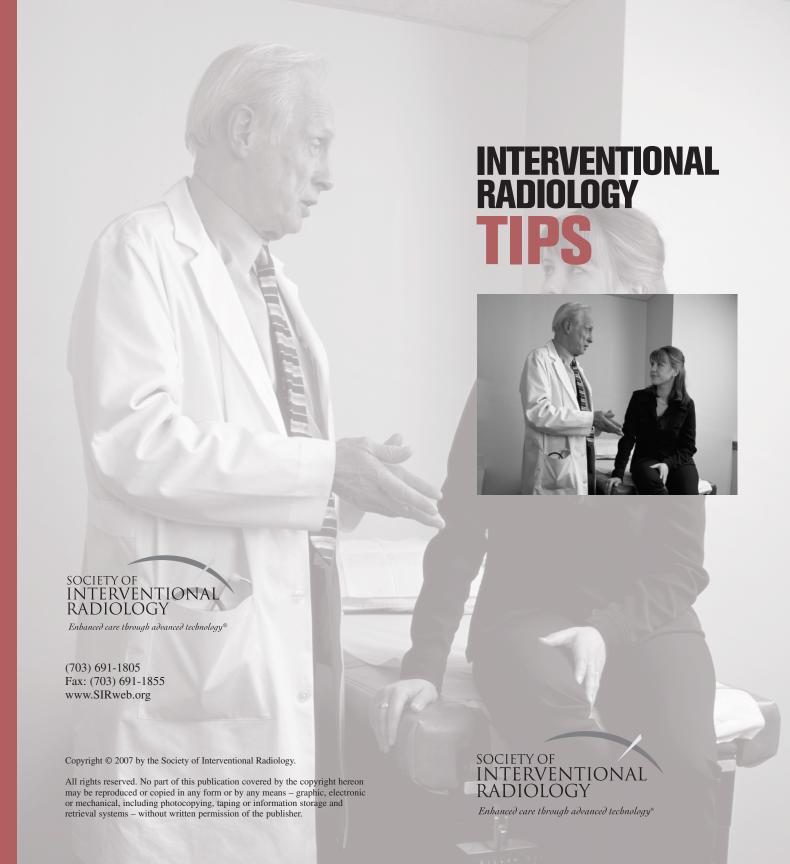
You or a member of your family has been referred to an interventional radiologist for treatment. This brochure will answer some of the questions about the medical specialty and how an interventional radiologist can help you.

For more information on interventional radiology, contact the Society of Interventional Radiology at (703) 691-1805 or visit www.SIRweb.org.



# **Questions and Answers about TIPS**

## Q. What is TIPS?

**A.** TIPS (transjugular intrahepatic portosystemic shunt) is a medical procedure that helps correct blood flow problems in the liver, which is a common outcome of liver disease. The procedure is done without surgery. It is performed in the radiology department by a specially trained doctor known as an interventional radiologist.

# Q. Why would a person need TIPS?

**A.** TIPS can often help a condition called portal hypertension, which occurs when the normal flow of blood through the blood vessels in the liver is slowed or blocked by scarring or other damage. The scarring or damage is caused by liver diseases, such as hepatitis or cirrhosis.

Several things can happen when the blood vessels are blocked. Sometimes bleeding occurs when the blood tries to find unblocked pathways. In other instances, fluid accumulates in the area around the stomach. (This is called ascites). Sometimes fluid accumulates in the chest. (This is called pleural fluid).

# Q. What happens during TIPS?

**A.** The interventional radiologist will make a tunnel in the liver through which the blocked blood can flow. After the tunnel is made, the doctor will insert a small metal tube (called a shunt or stent) into the tunnel to make sure the tunnel stays open.

The interventional radiologist will use X-ray pictures and X-ray dye (also called contrast) to guide the procedure.

# Q. How do I prepare for the procedure?

**A.** Do not eat or drink after midnight. If you are allergic to X-ray dye (contrast) or iodine, let your doctor know as soon as possible so that special precautions can be taken during the procedure.

Before the procedure, a member of the interventional radiology team will talk with you about the procedure in detail and answer any questions you have.

#### Q. What is TIPS like? Will it hurt?

**A.** Patients usually receive medication before TIPS to make them very groggy during the procedure. Sometimes patients are put completely to sleep by an anesthesiologist. In any case, the patient will be given medication to take away pain.

The interventional radiologist performs the entire procedure through an I.V. tube in the neck. If you are not put completely to sleep, the doctor will numb the area before putting in the I.V. tube.

When the procedure is finished, the doctor may leave the I.V. tube in your neck so you can receive other medication through it. Stitches are not necessary when the I.V. tube is removed.

## Q. What happens after my TIPS?

**A.** You will return from the radiology department to your room (or possibly to an intensive care unit, if your doctor wants to keep you under close observation). The doctor and nurses will tell you when you can eat and how long you will have to stay in bed.

Your stomach and/or neck may be sore. There also may be some swelling or bruising in your neck. The soreness and swelling will go away in a few days to a week and generally requires no treatment.

Your TIPS will require periodic check-ups. Your doctor will need to make sure that the TIPS is working well. This is usually done at three, six, or 12 months after the TIPS procedure. Your doctor will tell you the exact schedule you should follow.

## 0. What are the risks of TIPS?

**A.** Any procedure involving blood vessels raises the risk of bleeding. Recent studies indicate that the risk of serious bleeding is about 1 to 2 percent.

Some patients get sick from the X-ray dye. This is more likely in patients with diabetes, kidney disease, asthma or a previous allergic reaction to X-ray dye. If you have one of these conditions, tell your interventional radiologist before the procedure begins.

About 10 percent of the time, patients become temporarily confused or disoriented as a result of TIPS. This can usually be treated with medication after the TIPS procedure.

Because everyone is different, there may be risks that are not mentioned here. The risks to you will be discussed in more detail by a member of your interventional radiology team.

## Q. Are there alternatives to TIPS?

**A.** The blockage of blood flow through the liver is sometimes best treated with standard surgery and sometimes best treated with TIPS. Your doctors will tell you which they think is the best option for you.

## Q. What are the benefits of TIPS?

**A.** The benefit of TIPS is that your symptoms can be relieved without surgery, and the recovery time is less than it would be after surgery.

# Q. What is an interventional radiologist?

**A.** Interventional radiologists are doctors who specialize in minimally invasive, targeted treatments performed using imaging for guidance. They use their expertise in reading X-rays, ultrasound, MRI and other diagnostic imaging equipment to guide tiny instruments, such as catheters, through blood vessels or through the skin to treat diseases without surgery. Interventional radiologists are board-certified and fellowship trained in minimally invasive interventions using imaging guidance. The American Board of Medical Specialties certifies their specialized training. Your interventional radiologist will work closely with your primary care or other physician to be sure you receive the best possible care.