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## Distal splenorenal shunt

A distal splenorenal shunt (DSRS) is a type of surgery done to relieve high pressure in the portal vein. The portal vein carries blood from your digestive organs to your liver.

### Description

During DSRS, the vein from your spleen is disconnected from the portal vein. The vein is then attached to the vein to your left kidney. This helps reduce blood flow through the portal vein.

### Why the Procedure is Performed

The portal vein brings blood from the intestine, spleen, pancreas, and gallbladder to the liver. When blood flow is blocked, the pressure in this vein becomes too high. This is called portal hypertension. It often occurs due to liver damage caused by:

- Cirrhosis due to alcohol use
- Chronic viral hepatitis
- Blood clots
- Certain congenital disorders
- Primary biliary cirrhosis (liver scarring caused by blocked bile ducts)

When blood can't flow normally through the portal vein, it takes another path. As a result, swollen blood vessels called varices form. The most important location for these is in the esophagus. They develop thin walls that can break and bleed into the esophagus and stomach.

You may have this surgery if imaging tests such as upper GI endoscopy or x-rays show that you have bleeding varices in the esophagus or stomach. DSRS surgery reduces pressure in the varices and helps control bleeding.

### Risks

Risks for anesthesia and surgery in general are:

- Allergic reactions to medicines or breathing problems
- Bleeding, blood clots, or infection

Risks of this surgery include:

- Buildup of fluid in the belly (ascites)
- Repeat bleeding from the varices
- Encephalopathy (loss of brain function because the liver is unable to remove toxins from the blood)
- Pancreatitis (inflammation of the pancreas), or a pancreatic pseudocyst (fluid collection that forms by the pancreas that can cause pain)
- Clotting of the shunt
- Portal vein thrombosis

## Before the Procedure

Before the surgery, you may have certain tests:

- Angiogram (to view inside the blood vessels)
- Blood tests
- Upper GI endoscopy

Tell your surgeon or nurse if:

- You are or could be pregnant
- You are taking any medicines, including medicines, supplements, or herbs you bought without a prescription

During the week before your surgery:

- You may be asked to temporarily stop taking medicines that keep your blood from clotting. These medicines are called blood thinners. This includes over-the-counter medicines and supplements such as aspirin, ibuprofen (Advil, Motrin), naproxen (Aleve, Naprosyn), and vitamin E. Many prescription medicines are also blood thinners.
- Ask your surgeon which medicines you should still take on the day of surgery.

On the day of surgery:

- Follow instructions about when to stop eating and drinking.
- Take the medicines your surgeon told you to take with a small sip of water.
- Arrive at the hospital on time.

## After the Procedure

Expect to stay in the hospital after surgery to recover for 7 to 10 days.

When you wake up after the surgery you will have at least one or more of the following:

- A tube in your vein (IV) that will carry fluid and medicine into your bloodstream
- A catheter in your bladder to drain urine
- An NG tube (nasogastric) that goes through your nose into your stomach to remove gas and fluids
- A pump with a button you can press when you need pain medicine (also called patient controlled analgesia)

As you are able to eat and drink, you will be given liquids and food.

You may have an imaging test to see if the shunt is working.

You may meet with a dietitian, and learn how to eat a low-fat, low-salt diet.

## Outlook (Prognosis)

After DSRS surgery, bleeding in the varices is controlled in most people with portal hypertension. The highest risk of bleeding again is in the first month after surgery.

## Alternative Names

DSRS; Distal splenorenal shunt procedure; Renal - splenic venous shunt; Warren shunt; Cirrhosis - distal splenorenal; Liver failure - distal splenorenal; Portal vein pressure - distal splenorenal shunt

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