
Understanding Portal Vein Thrombosis

A thrombosis is a blood clot that blocks a blood vessel. The portal vein is a large blood vessel in the middle of your body. It gets blood from your digestive organs (intestines, stomach, pancreas, spleen) and carries it to the liver. A blood clot in this vein is not common. But it can happen in some people with certain health conditions or an injury.

What causes portal vein thrombosis?

Various things may cause it, including:

- Cancer in the liver, pancreas, or gallbladder
- Scarring in the liver (cirrhosis). This is the most common cause of portal vein thrombosis.
- Inflammation or infection of the pancreas, gallbladder, appendix, or bowel
- Surgery in the abdomen
- Genetic diseases that cause your blood to clot easily, such as Factor V Leiden
- Pregnancy
- Blood disorders that increase clotting, such as myeloproliferative disease and polycythemia.

Symptoms of portal vein thrombosis

Many people have no symptoms. Some people may have some of these:

- Belly pain that can be mild to severe
- Upset stomach (nausea) and vomiting
- Swelling in your belly from fluid (ascites)
- Vomiting blood
- Black, sticky poop

Diagnosing portal vein thrombosis

The healthcare team will ask about your symptoms and your health history. You may have 1 or more of these tests:

- **Ultrasound with Doppler.** This test uses sound waves and a computer to show moving images of the inside of your body. It looks at the blood flow through your portal vein.
- **CT scan.** This test uses a series of X-rays and a computer. It makes detailed images of the inside of your body.

- **MRI.** This test uses large magnets, radio waves, and a computer. It makes detailed images of the inside of your body.
- **Blood tests.** These may be done to see how well your liver is working, or to check for conditions that cause clotting.

Treatment for portal vein thrombosis

The goal of treatment is to have blood flow through the portal vein again. Treatment may be done to remove the clot, or keep it from getting worse. You may have 1 or more of these:

- **Medicine.** It's common to be given medicine to thin your blood. This medicine is called an anticoagulant. You may need to be on this medicine for up to 6 months. This medicine may be given by injection or orally. Occasionally, You may be given medicine to help break up the clot. This medicine is called a thrombolytic. You may also be given medicines to help lower blood pressure in the portal vein.
- **Thrombectomy.** This is a procedure to remove the blood clot. A thin, flexible tube (catheter) is put into the vein through the skin in your belly. The tube sends fluid to break up the blood clot.
- **Surgery or interventional radiology to put in a shunt.** A shunt is a small tube. A shunt may be put in to connect the portal vein to a different vein. The shunt will then send blood flow in a different path to avoid the clot.

Your healthcare team will talk with you about what kind of treatment is best for you. Your team may include:

- A doctor who treats blood vessels (vascular specialist)
- A doctor who treats the digestive system (gastroenterologist)
- A doctor who diagnoses and treats using imaging tests, small tubes, and small tools (interventional radiologist)
- A surgeon
- A cancer doctor (oncologist) if the cause was cancer

Possible complications of portal vein thrombosis

Portal vein thrombosis can cause:

- High blood pressure in your portal vein (portal hypertension)
- Enlarged veins in your esophagus that can cause bleeding
- Enlarged veins in your stomach that can cause bleeding
- Enlarged spleen
- Fluid build-up in the belly (ascites)

If not treated, it can lead to:

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- Death of tissue in the intestine
 - Hole in the intestine
 - Serious infection in the belly (peritonitis)
 - Failure of 1 or more organs
 - Death

When to call your healthcare provider

Call your healthcare provider if you have any of these:

- Fever of 100.4°F (38°C) or higher
- Pain that gets worse
- Symptoms that don't get better, or get worse
- New symptoms