

What is mesenteric artery disease?

Mesenteric artery disease is loss of blood supply (**ischemia**) to a part of the body that contains mesenteric arteries. The mesenteric arteries are blood vessels that carry blood to your large and small intestines, stomach, liver and colon. There are two types of mesenteric artery disease: acute and chronic. The **acute** form of the disease is typically caused by a **sudden** loss of blood flow. **Chronic** mesenteric artery disease occurs when the arteries become narrow or blocked, usually because of the buildup of plaque. Plaque is made up of fat, cholesterol and other substances found in the blood.

What are the symptoms of mesenteric artery disease?

Chronic mesenteric ischemia

- Dull, crampy stomach pain that begins 15-45 minutes after eating
 - The pain may last for as long as 60-90 minutes and then disappears.
- Unexpected weight loss
- Nausea/vomiting
- Fear of eating
- Diarrhea

Acute mesenteric ischemia:

- Sudden, severe stomach pain
- Nausea/vomiting
- Bloating
- Black or bloody stools
- Fever

How is mesenteric artery disease diagnosed?

There are multiple tests that can be performed to diagnose mesenteric ischemia and that will help your doctor suggest next steps.

- **Doppler ultrasound** – a noninvasive test that uses soundwaves to measure the amount of blood flow through your blood vessels. It is the most common test to diagnose mesenteric ischemia.
- **Computer tomography or Magnetic Resonance Angiography**– a test used to create detailed images of your internal organs, bones, soft tissues and blood vessels. For this test, your doctor will inject a substance (called contrast dye) into your vein. The dye then travels to your blood vessels and highlights them on x-ray pictures.
- **Angiogram**- a test used to show if you have any blockages in your arteries. This test may be used in addition to tests listed above. A substance (contrast dye) is injected into your arteries and X-Ray pictures are taken.
- **Arteriogram**- a procedure where contrast material is injected into your arteries and pictures are taken of your arteries. It shows if you have any blockages in your arteries and may be needed in addition to the studies above.
- **Blood tests** – you may need to have your blood tested.

How is mesenteric artery disease treated?

The goal of treatment for mesenteric artery disease is to improve blood flow to your organs. Your doctor will talk to you about treatment options which may include:

- Continued monitoring
- Medication changes
- Endovascular surgery (using small incisions in your groin to guide a catheter to open the blockage)
- Open surgery

Acute Cases:

- **Emergency Surgery**

Acute mesenteric artery disease is a true medical emergency with a high risk of both death and major complications. Soon after arriving to the hospital, you may be taken to the operating room for exploratory surgery. This is surgery used to look inside the body to help make a diagnosis. Some people require bypass surgery or a stenting procedure (see below). Sometimes repeated surgery is needed which will make your hospital stay longer.

- **Bypass Surgery**

This procedure creates a bypass or detour around the narrowed or blocked part of the mesenteric artery. To create a new path for blood to flow, one of your veins or a synthetic tube (known as graft) is sewn in above and below the blocked area.

- **Angioplasty and Stenting**

This procedure is used to widen the mesenteric artery and restore normal blood flow. Through a small incision in your groin, a thin tube with a deflated balloon on the end (a catheter) is inserted into the narrow artery. Your surgeon inflates the balloon to push the plaque against the artery wall. Once the artery is widened, a small wire mesh coil (stent) is then put into the artery to keep the artery open.

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