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For patients

Gastrointestinal Bleeding

Gastrointestinal (GI) (http://www.radiologyinfo.org) bleeding is a condition where blood is able to leak into the GI tract. The GI tract includes the esophagus, stomach, small bowel (http://www.radiologyinfo.org) , colon (http://www.radiologyinfo.org) , rectum (http://www.radiologyinfo.org) , and anus. Some patients with GI bleeding might see red blood in their stools or from their mouth if they vomit. Other patients might not be able to see the blood coming from the GI tract, but the bleeding can be found with laboratory tests.

If you have GI bleeding, your doctor will use laboratory tests, endoscopy tests, and radiology tests to determine the cause of your bleeding. There are many causes of GI bleeding and the type of treatment needed depends on the cause. Treatments can include observation, iron supplementation, embolization, endoscopy, or surgery.

What is gastrointestinal bleeding?

Gastrointestinal (GI) bleeding is a condition where blood is able to leak into the GI tract. The GI tract includes the esophagus, stomach, small bowel, colon, rectum, and anus. If blood leaks into the GI tract a person might see red blood in their stool or in vomit. Blood that has been in the GI tract for a long time can make stool look black in color. The loss of blood into the GI tract can also give a person anemia (http://www.radiologyinfo.org) , which means you do not have enough red blood cells (http://www.radiologyinfo.org) or hemoglobin (http://www.radiologyinfo.org) . A person with GI bleeding can have many symptoms caused by anemia, low blood volume or irritation of the GI tract caused by blood. Symptoms of GI bleeding can include:

- Fatigue
- Dizziness or fainting
- Shortness of breath
- Chest pain
- Abdominal pain or cramping

How is gastrointestinal bleeding diagnosed and evaluated?

GI bleeding can be diagnosed if blood is visible in the stool or vomit. If GI bleeding into the GI tract is slow, then blood in the stool might not be visible. Your doctor may suspect you have GI bleeding if blood tests show that you have anemia. Your doctor can use laboratory tests to detect blood in your stool that is not visible.

There are many possible causes of GI bleeding. It is important to determine the cause of bleeding to plan the correct treatment. GI bleeding can be difficult to diagnose, and multiple tests are often needed to determine the location and cause of bleeding.

Most causes of GI bleeding come from the stomach and the colon. Depending on your symptoms your doctor may recommend performing an endoscopic exam called an esophagogastroduodenosopy (EGD) to evaluate your esophagus, stomach and the first part of your small bowel called the duodenum, or they may recommend a colonoscopy (http://www.radiologyinfo.org) .

Sometimes both tests are performed at the same time. If no source of bleeding is found on these endoscopic tests, then your doctor may recommend assessing the small bowel with either a video capsule endoscope (VCE) (http://www.radiologyinfo.org) or a *CT enterography (https://www.radiologyinfo.org/en/info/ctenterography)* or MRI *enterography (https://www.radiologyinfo.org/en/info/mrenterography)* .

If your doctor suspects that you are actively bleeding into your GI tract they may recommend performing a *CT angiography (https://www.radiologyinfo.org/en/info/angioct)* or a fluoroscopic angiography. These tests are intended to find the location of active bleeding in the GI tract.

There are many additional tests that might be used to help your doctor find the location and cause of GI bleeding. These additional tests can include *general nuclear medicine (https://www.radiologyinfo.org/en/info/genuclear)* tests, advanced endoscopy procedures or surgery. Tests are often repeated to help find sources of bleeding.

How is gastrointestinal bleeding treated?

The treatment needed to stop GI bleeding depends on the location of the bleeding and the cause. If a person has lost a large amount of blood, they may need to be hospitalized and given fluids or blood transfusions to restore their blood volume before investigating the cause of bleeding.

Active bleeding into the GI tract may require an immediate intervention to stop the bleeding before treating the underlying cause of the bleeding. Immediate interventions to stop bleeding can include cautery of the bleeding source at endoscopy or embolization (blocking blood vessels) at fluoroscopic angiography. Common causes of GI bleeding and their treatments include:

- Abnormal blood vessels: Bleeding blood vessels can be cauterized with endoscopy or embolized (blocked) at fluoroscopic angiography.
- Inflammation in the GI tract can cause ulcerations or erosion of the GI tract lining that lead to bleeding. Inflammation is usually treated with medications such as stomach acid suppressants or medications that suppress the immune system.
- Tumors: Tumors are often removed at surgery.

If no source of GI tract bleeding can be found and the bleeding is suspected to be slow or intermittent then it may be appropriate to treat a patient with iron replacement medications. Iron replacement helps your body replace red blood cells that are lost from bleeding.

Diagnosis and treatment for GI bleeding depends on many factors, including a person's other health conditions, the rate of bleeding, the suspected location of bleeding, and the underlying cause.

Patients presenting with GI bleeding suspected of having a slow rate of blood loss are best assessed with endoscopic tests (EGD and colonoscopy). If those tests do not find a source of bleeding, then the small bowel can be assessed with VCE, CT enterography, or MR enterography.

Which test, procedure or treatment is best for me?

- Nonvariceal Upper Gastrointestinal Bleeding (https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jacr.org%2Farticle%2FS1546-1440(24)00922-0%2Fpdf&data=05%7C02%7Cdferreira%40rsna.org%7C9afe82c78791488d414708dd995b450d%7Cfb5fefcd7ca642f3b443917c2a68cecd%7C0%7C0%7C638835339523688758%7CUnknown%7CTWFpbGZsb3d8e
- Radiologic Management of Lower Gastrointestinal Tract Bleeding (https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jacr.org%2Farticle%2FS1546-1440(24)00921-9%2Fpdf&data=05%7C02%7Cdferreira%40rsna.org%7C9afe82c78791488d414708dd995b450d%7Cfb5fefcd7ca642f3b443917c2a68cecd%7C0%7C0%7C638835339523711660%7CUnknown%7CTWFpbGZsb3d8e

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