

[Home](#) > [Types of Cancer](#) > [Gastrointestinal Stromal Tumor - GIST](#) > [Gastrointestinal Stromal Tumor - GIST - Diagnosis](#)

PDF generated on July 20, 2016 from  
<http://www.cancer.net/cancer-types/gastrointestinal-stromal-tumor-gist/diagnosis>

## **[Gastrointestinal Stromal Tumor - GIST - Diagnosis \[1\]](#)**

**This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 12/2015**

**ON THIS PAGE:** You will find a list of the common tests, procedures, and scans that doctors can use to find out what's wrong and identify the cause of the problem. To see other pages, use the menu on the side of your screen.

Doctors use many tests to diagnose a tumor. They want to find out if the tumor is cancerous, and if it is, learn whether the tumor has spread to another part of the body, called metastasis. Some tests may also determine which treatments may be the most effective. Imaging tests may be used to find out whether the cancer has spread.

Your doctor may consider these factors when choosing a diagnostic test:

- Age and medical condition
- Type of tumor suspected
- Signs and symptoms
- Previous test results

In addition to a physical examination, the following tests may be used to diagnose GIST or

determine the best treatment. Not all tests listed will be used for every person.

- **Computed tomography (CT or CAT) scan.** A [CT scan](#) [3] is a test commonly used to diagnose GIST. A CT scan creates a 3-dimensional picture of the inside of the body with an x-ray machine. A computer then combines these images into a detailed, cross-sectional view that shows any abnormalities or tumors. A CT scan can also be used to measure the tumor's size or help doctors determine whether the cancer has spread to the liver or gut lining. Sometimes, a special dye called a contrast medium is given before the scan to provide better detail on the image. This dye can be injected into a patient's vein or given as a pill or liquid to swallow.
- **Fecal occult blood test.** [This test](#) [4] detects blood that can't be seen in the stool, which can be caused by cancer in the GI tract. A small amount of stool is placed on a plastic slide or special paper. Then the stool is tested in the doctor's office or a laboratory.
- **Barium swallow and x-ray.** An x-ray is a way to create a picture of the structures inside of the body, using a small amount of radiation. X-rays may be taken of the esophagus and stomach, which are referred to as the upper GI tract. In a barium swallow, x-rays are taken after a patient drinks a substance called barium. The barium outlines the GI tract on the x-ray and helps the doctor see a tumor or other abnormal areas. During a [barium enema](#) [5], the doctor looks at the lining of the colon and rectum on an x-ray after the barium has been given through the anus.
- **Endoscopy.** An [endoscopy](#) [6] allows the doctor to see the inside of the stomach or large bowel. The patient may be sedated. Sedation is giving medication to make a patient more relaxed, calm, or sleepy. With upper endoscopy, the doctor inserts a thin, lighted tube called a gastroscope through the mouth, down the esophagus, and into the stomach and small bowel. With lower endoscopy, the scope is put in through the anus. If abnormal areas are found, the doctor can remove a sample of tissue and check it for evidence of cancer (see Biopsy, below). A special type of test called a capsule endoscopy involves swallowing a small camera. This allows very clear viewing of the small intestine. It is rarely used but can be useful when other diagnostic methods fail to find the cause of GI bleeding.
- **Endoscopic ultrasound.** This test is similar to an endoscopy, but the scope has a small ultrasound probe on the end. The probe uses sound waves to create an image of the stomach or rectum and nearby organs. The ultrasound image helps doctors determine if or how far the cancer has spread into nearby tissues.
- **Magnetic resonance imaging (MRI).** An [MRI](#) [7] uses magnetic fields, not x-rays, to

produce detailed images of the body. MRI can also be used to measure the tumor's size. A special dye called a contrast medium is given before the scan to create a clearer picture. This dye can be injected into a patient's vein or given as a liquid to swallow.

- **Positron emission tomography (PET) scan.** A [PET scan](#) [8] is a way to create pictures of organs and tissues inside the body. A small amount of a radioactive sugar substance is injected into the patient's body. This sugar substance is taken up by cells that use the most energy. Because cancer tends to use energy actively, it absorbs more of the radioactive substance. A scanner then detects this substance to produce images of the inside of the body. Doctors often use PET scans to add to the information gathered from the CT scan, MRI, or physical examination. Doctors may also use the scans to show activation of the disease (called PET flare) or to measure how well treatment is working.
- **Biopsy.** Your doctor may recommend a biopsy if a mass suspected of being a GIST is found. A [biopsy](#) [9] is the removal of a small amount of tissue for examination under a microscope. The type of biopsy performed will depend on the location of the tumor. Other tests can suggest that cancer is present, but only a biopsy can make a definite diagnosis. A pathologist then analyzes the sample. A pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease.

Sometimes, your doctor may recommend surgery even if the biopsy results do not indicate cancer. That's because a biopsy for GIST is not always definitive. A patient may need the entire tumor removed and biopsies done in several locations to make a diagnosis. However, it is very important that you see a team of medical and surgical oncologists experienced in the treatment of GIST before a big surgery.

- **Tumor pathology.** A pathologist makes a diagnosis of GIST by looking at the shape and appearance of tumor cells, doing tests for a protein called KIT and other tumor markers, and finding the mitotic count (a measure of actively dividing cells; see [Stages](#) [10] for more information).
- **Molecular testing of the tumor.** Your doctor may recommend running additional laboratory tests on a tumor sample to identify specific genes, proteins, and other factors unique to the tumor. Results of these tests will help decide whether your treatment options include a type of treatment called targeted therapy (see [Treatment Options](#) [11]).

Studies have shown that depending on the tumor's specific gene mutations, some patients may need higher doses of a drug called imatinib (Gleevec) to best control the tumor. Otherwise, they might not benefit from taking this drug at all. Testing each patient's tissue for genetic mutations can also help doctors target the specific mutation causing the tumor to grow (see [Treatment Options](#) [11]). This testing is clinically available and used in

research studies. Treatment for a GIST can start before this type of testing is completed. However, the results of this test may change the treatment plan after it starts.

After your diagnostic tests, your doctor will review all of the results with you. If the diagnosis is GIST, some of these results also help the doctor describe how advanced the tumor is; this is called staging.

*The [next section in this guide is Stages](#) [10], and it explains the system doctors use to describe the extent of the disease. Or, use the menu on the side of your screen to choose another section to continue reading this guide.*

---

### **Links**

- [1] <http://www.cancer.net/cancer-types/gastrointestinal-stromal-tumor-gist/diagnosis>
- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/24486>
- [4] <http://www.cancer.net/node/24523>
- [5] <http://www.cancer.net/node/24402>
- [6] <http://www.cancer.net/node/24511>
- [7] <http://www.cancer.net/node/24578>
- [8] <http://www.cancer.net/node/24565>
- [9] <http://www.cancer.net/node/24406>
- [10] <http://www.cancer.net/node/18875>
- [11] <http://www.cancer.net/node/18876>