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Cancer Center

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Lifestyle risk factors for stomach cancer

Smoking: You're more likely to get stomach cancer if you smoke tobacco or use tobacco products.

If you would like to learn more about how to quit smoking, please read our resource [Tobacco Treatment Guide: For Patients and Their Families](#).

We know using tobacco can cause many cancers. So far, there's not been enough research to show whether smoking marijuana also is a risk factor for stomach cancer.

Alcohol use: If you have 3 or more alcohol drinks a day, you're at higher risk for stomach cancer. Try to cut back or stop drinking alcohol.

Diet: It's best to avoid having a lot of foods that are high in salt, smoked, or pickled.

Eating whole grains, fresh fruits and vegetables are all part of a healthy diet. Good nutrition can help prevent unwanted changes in the lining of your stomach.

Weight and exercise: Obesity may put you at higher risk for gastric cancer. Exercise regularly and keep your body at a healthy weight to lower your risk for stomach cancer.

Genetic and inherited stomach cancer risk factors

If a close blood relative had stomach cancer, you may be at higher risk, too. Blood relatives include parents, siblings, and close relatives related to you by blood. They're not related by marriage or adoption. A first-degree blood relative is a parent, sibling, or child.

There's also a higher risk for if your heritage is Asian, Eastern European, or South American.

For reasons that are still unclear, people with type A blood also are at higher risk.

[Hereditary diffuse gastric cancer \(HDGC\) syndrome](#) is strongly linked to developing gastric cancer. It's most commonly linked to changes (mutations or variants) in the *CDH1* and *CTNNA1* genes.

Other hereditary conditions that can raise your risk for stomach cancer:

[Familial adenomatous polyposis \(FAP\)](#)

Peutz-Jeghers syndrome (PJS)

[Lynch syndrome](#) (also called hereditary nonpolyposis colorectal cancer syndrome)

Mutations in certain genes, such as *BRCA1* or *BRCA2*

Hereditary diffuse gastric cancer (HDGC) syndrome

[Hereditary diffuse gastric cancer \(HDGC\) syndrome](#) is an inherited condition. It raises your risk of getting diffuse type stomach cancer. HDGC often affects much more of the stomach than other types of stomach cancer.

CDH1 genetic mutations and HDGC

Hereditary diffuse gastric cancer (HDGC) is caused by changes (mutations or variants) in the [CDH1 gene](#).

People who have HDGC and a *CDH1* mutation have a higher risk of getting invasive diffuse gastric cancer by age 80. Research studies have different estimates about how high that risk is.

According to lower estimates, about 3 or 4 out of every 10 people with these conditions may get this cancer.

According to higher estimates, the risk is about 7 out of every 10 people assigned male at birth. It's about 6 out of every 10 people assigned female at birth.

Surgery may lower the risk of getting stomach cancer for people who have changes in the *CDH1* gene. A total gastrectomy is a surgery that may lower cancer risk:

For people with *CDH1* variants and a family history of gastric cancer or lobular breast cancer.

For some people with no family history of stomach cancer.

CTNNA1 genetic mutations and HDGC

Changes in the *CTNNA1* gene can be inherited. Changes in the *CTNNA1* gene also are linked to hereditary diffuse gastric cancer (HDGC) syndrome. We do not know the exact risk for HDGC if you have a *CTNNA1* mutation. HDGC syndrome raises your risk for stomach cancer.

If your parent, sibling, or child has a *CTNNA1* mutation, you may have a 50% chance of having it, too. That means you have the same chance of having this mutation as not having it.

The MSK difference for HDGC caused by *CDH1* or *CTNNA1* mutations

MSK is one of the country's biggest referral centers for people with hereditary diffuse gastric cancer and a *CDH1* or *CTNNA1* gene mutation.

MSK has a Hereditary Gastric Cancer Registry to help us learn more about this condition. If you would like to join, please schedule an appointment with our experts in gastric cancer. They can give you information about this registry.

MSK is a leader in testing for genetic changes, including *CDH1* gene mutations. A test may show genetic changes that raise your chances of getting certain cancers. MSK recommends people who have these hereditary cancer mutations talk with a genetic counselor about ways to lower your risk.

Health conditions that raise your risk for stomach cancer

Conditions that lower the level of acid in your stomach

Some conditions cause low stomach acid levels that can raise your stomach cancer risk. Examples are:

Autoimmune gastritis, an autoimmune disorder that also causes pernicious anemia.

Ménétrier (MAY-nay-tree-AY)disease, a rare illness that makes large folds grow in the stomach.

Stomach cancer precursor lesions

If you have a precursor lesion (LEE-zhun), you're at higher risk for getting stomach cancer.

A precursor means something that can turn into cancer. A lesion is an area of stomach tissue that's not normal. Precursor lesions do not always lead to stomach cancer. They do raise your risk for stomach cancer. MSK will monitor or treat these lesions to prevent cancer.

Stomach ulcers

Stomach ulcers are also called peptic ulcers or gastric ulcers. Stomach ulcers are an open sore on the lining of the stomach. Ulcers and chronic (long-term) swelling can make cells precancerous. That means the cells can turn into cancer. Chronic inflammation also can cause gastric lymphoma in some cases.

One symptom of a stomach ulcer is a burning feeling in the stomach. Some stomach ulcers do not hurt until they cause bleeding.

Helicobacter pylori bacterial infection and inflammation in the stomach

Infection from *Helicobacter pylori* bacteria is the most common cause of stomach ulcers (also called peptic ulcers or gastric ulcers). *H. pylori* causes stomach ulcers by breaking down the stomach's protective lining. That makes it very likely you will have inflammation (swelling) in your stomach. Inflammation can lead to ulcers.

Inflammation from *H. pylori* infection can change the cells in the stomach's lining, causing precancerous changes. These changes can raise your risk for getting stomach cancer.

Several tests can diagnose *H. pylori*. Talk with your healthcare provider about getting tested for *H. pylori* if you have a gastric ulcer. You should get treatment if you have an infection with *H. pylori*.

Inflammation raises risk for stomach cancer

Chronic inflammation in the stomach, including inflammation from infection with *Helicobacter pylori* bacteria, can lead to changes in your cells. These changes raise your risk for getting stomach cancer.

How do cell changes cause stomach cancer?

Inflammation can cause cells in the stomach's lining to change into different kinds of cells. Normal cells in the stomach can change to atrophic gastritis. That can change to intestinal metaplasia, then change to dysplasia. Finally, the cells change to stomach cancer. We explain each of these steps below.

These changes become more harmful at each step. They're a precursor to cancer, which means they raise your risk for getting cancer.

Atrophic gastritis

Chronic inflammation of the stomach is called gastritis. When you have inflammation in the stomach for a long time, this can cause a thinning of the normal lining of the stomach. This is called atrophy, also known as atrophic gastritis (ay-TROH-fik gas-TRY-tis).

Sometimes, this change can be reversed if we treat the cause of the inflammation. If the inflammation continues, it can lead to gastric intestinal metaplasia.

Gastric intestinal metaplasia

If inflammation continues for a long time, the atrophic cells can change again. They become more like cells that are supposed to line the intestine, not the stomach. This is called gastric intestinal metaplasia (meh-tuh-PLAY-zhuh). Gastric intestinal metaplasia is not cancer, but it can turn into cancer.

Dysplasia

Cells that already changed into intestinal metaplasia are more likely to change again. If they do, it's called dysplasia (dis-PLAY-zhuh. These are abnormal, precancerous cells that can turn into cancer cells. These lesions should be treated or closely monitored to prevent them from turning into cancer.

Low-grade dysplasia means there are only a few changes in the cells.

High-grade dysplasia means many cells have changed. There are no signs of cancer, but high-grade dysplasia is very likely to become cancer.

Sometimes dysplasia can be removed with a treatment called [endoscopic submucosal dissection](#) (ESD). During an endoscopic submucosal dissection (en-doh-SKAH-piksub-myoo-KOH-sul dy-SEK-shun) procedure, we can cut out the dysplasia from the surface of the stomach. The stomach stays in place.

MSK is one of the highest volume centers for ESD in the country . If you have dysplasia in the stomach, you can schedule an appointment with one of our experts. They can talk with you about whether this treatment is right for you.

Request an Appointment

Call [800-525-2225](tel:800-525-2225)
Available Monday through Friday, 8 a.m. to 6 p.m. (Eastern time)

[Make an Appointment](#)

Monitoring for stomach precursor lesions

Precursor lesions do not always lead to stomach cancer. But they may raise your risk for stomach cancer. Some people with these changes are at high risk for getting stomach cancer. They may need to get regular [endoscopy](#) procedures to monitor whether these changes get worse. Your care team also will treat dysplasia or early stomach cancer, if it develops.

MSK is researching the best ways to monitor people with these changes, using our Gastric Precursor Registry. You can learn about this research and whether you can join by scheduling an appointment with our gastric experts.

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