

Colorectal Cancer (Powered by 23andMe Research)

POWERED BY 23ANDME RESEARCH

Colorectal cancer is a disease in which cells in the colon or rectum grow and divide in an uncontrolled way. If it's not found and treated early, colorectal cancer can invade nearby tissues and spread to other parts of the body.



Jamie, your genetic result is associated with an **increased likelihood** of developing colorectal cancer.

An estimated **8%** of people with genetics like yours develop colorectal cancer **by their 70s**. This result takes into account your birth sex and genetic ancestry.



This estimate is based on currently available data and may be updated over time.

An important limitation of this report

Keep in mind that this report **does not include** rare genetic variants that have a large impact on the likelihood of developing colorectal cancer, such as variants linked to MUTYH-associated polyposis, Lynch syndrome, familial adenomatous polyposis (FAP), and other hereditary colorectal cancer syndromes. Instead, this report looks at thousands of variants that individually have a very small effect, but combined can increase the likelihood of developing the condition.

If you have a personal or family history of colorectal cancer, please talk to a healthcare professional to determine whether additional genetic testing may be right for you. If you already know you have a variant linked to increased colorectal cancer risk, it's important to continue any cancer screening and prevention plans your clinician recommends.



Ways to take action

Experts recommend getting regular screening for colorectal cancer starting at age 45, or earlier for people with certain risk factors, such as a personal or family history of colorectal cancer or colon polyps.

Since your overall likelihood of developing colorectal cancer also depends on other factors, including lifestyle, experts also agree that healthy lifestyle habits can help lower the chances of developing colorectal cancer.

- Eat less red meat (such as beef, pork, and lamb) and processed meat (like hot dogs, sausage, and lunch meats)
- Eat plenty of fruits, vegetables, and whole grains
- Get regular physical activity
- Maintain a healthy weight
- Limit alcohol intake
- If you smoke, get help quitting



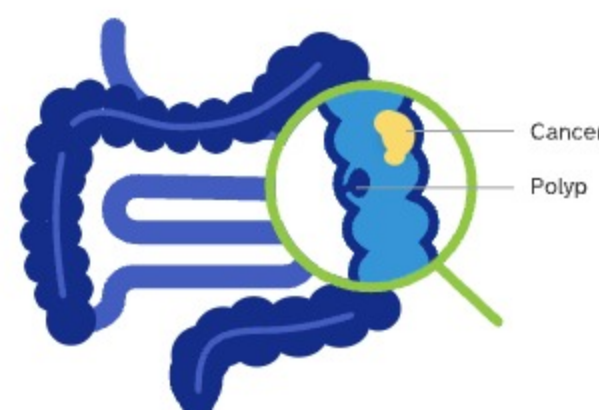
[Learn more from the American Cancer Society](#)

About colorectal cancer

What is colorectal cancer?

Colorectal cancer originates in the colon or rectum, which are sections of the large intestine. Colorectal cancer occurs when cells in the colon or rectum grow and divide in an uncontrolled way. This is caused by DNA changes that accumulate over time as our cells divide. With age, it's common for growths called polyps to form in the colon or rectum. Some polyps may turn into cancer over time, but if polyps are caught early, they can be removed to prevent cancer from developing.

Colorectal cancer is one of the most common types of cancers. It impacts about 1 in 25 people in their lifetimes. When caught early, colorectal cancer is often treatable.

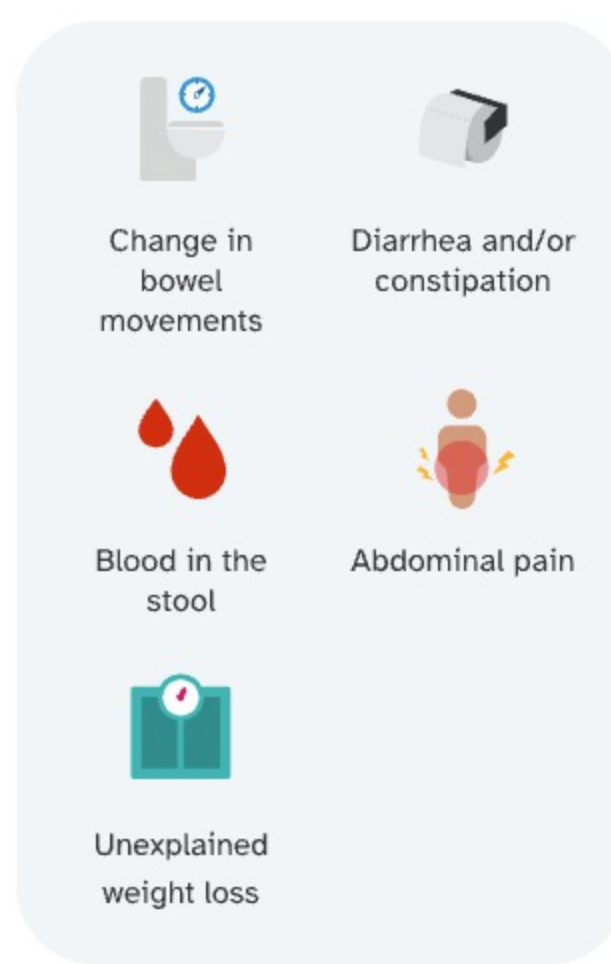


Symptoms

Colorectal polyps and colorectal cancer may not cause any symptoms, especially at first. That's why it's important to get regular screening when your clinician recommends it. If symptoms do occur, they can include:

- A change in bowel movement patterns
- Diarrhea, constipation, or a feeling that the bowel doesn't completely empty
- Blood in the stool
- Abdominal pain or cramping
- Unexplained weight loss

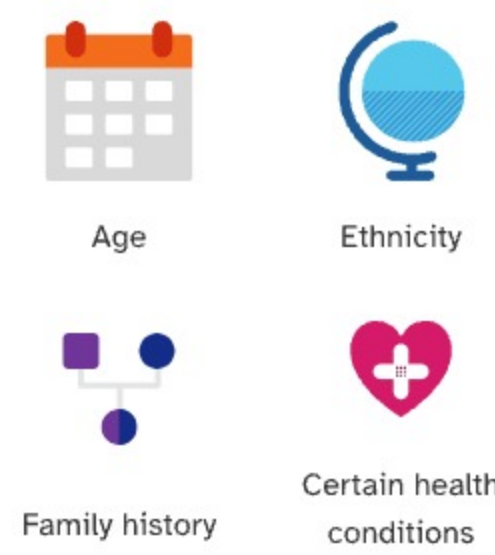
These symptoms can also be due to other problems. It's important to talk to a clinician to determine the cause.



Other factors that can impact your chances of developing colorectal cancer

Besides genetics and lifestyle, some factors that can increase a person's chances of developing colorectal cancer include:

- Age (colorectal cancer is more common after age 50)
- Ethnicity (people with American Indian/Alaska Native, African American, and Ashkenazi Jewish ancestry have higher than average risk)
- Having a personal or family history of colorectal cancer or colorectal polyps
- Having inflammatory bowel disease (including Crohn's disease or ulcerative colitis)
- Having type 2 diabetes



Keep in mind

This report **does not diagnose** colorectal cancer. **Consult with a healthcare professional** if you are concerned about your likelihood of developing colorectal cancer, have a personal or family history of colorectal cancer, or before making any major lifestyle changes.



If you have already been diagnosed with colorectal cancer by a healthcare professional, it is important to **continue any management plan** that is recommended.



This report **does not account for every possible factor** that could impact your likelihood of developing this condition. Non-genetic and other genetic factors, such as rare variants in the MUTYH gene and genes linked to Lynch syndrome that have a large impact, are not included in this report.



This report has not been validated for individuals of certain ancestries, including some people with ancestry from multiple continents.



This report is based on a genetic model **created using data from 23andMe research participants**. It has not been clinically validated and should not be used to make medical decisions.

[How we got your result](#)

Methods

This report is based on a statistical model called a polygenic score that takes into account your genetic results at many genetic markers, along with your genetic ancestry and the birth sex you reported in your account settings, to estimate the likelihood of developing colorectal cancer. We used data from 23andMe research participants to calculate this estimate. We may update results and estimates over time as the model, available data, or scientific understanding about this condition improves. Note that this report does not include rare genetic variants that have a large impact on the likelihood of developing colorectal cancer, such as variants linked to MUTYH-associated polyposis, Lynch syndrome, familial adenomatous polyposis (FAP), and other hereditary colorectal cancer syndromes.

About the result

People whose result is associated with odds of developing colorectal cancer that are at least 1.5 times higher than average are considered to have an increased likelihood. These results are based on many genetic markers, and random test error at one or more of these markers can lead to a small margin of error in your estimated likelihood of developing colorectal cancer. For people whose estimates are near the boundary between typical and increased likelihood, this margin of error may introduce some uncertainty about whether their estimated likelihood is considered "typical" or "increased." Your genetic result is associated with an increased likelihood. Based on the available genetic markers used to calculate your result, there is a less than 1% chance your genetic likelihood estimate could fall on the other side of the boundary and be in the range that is considered typical.

Scientific validity across ancestries

We verified that the model meets our scientific standards for individuals with predominantly European and Hispanic/Latino ancestry.

See our [white paper](#) to learn more about the science behind this report.

Change log

- March 2024: Colorectal Cancer (Powered by 23andMe Research) report created.

Read more:

[American Cancer Society. "Colorectal Cancer." Retrieved November 10, 2023, from https://www.cancer.org/cancer/types/colorectal-cancer.html.](#)

[Centers for Disease Control and Prevention. "Colorectal \(Colon\) Cancer." Retrieved November 10, 2023, from https://www.cdc.gov/cancer/colorectal/.](#)

[Marley AR et al. \(2016\). "Epidemiology of colorectal cancer." Int J Mol Epidemiol Genet 7\(3\):105-114.](#)

[National Cancer Institute Surveillance, Epidemiology, and End Results Program. "Cancer Stat Facts: Colorectal Cancer." Retrieved December 15, 2023, from https://seer.cancer.gov/statfacts/html/colorect.html.](#)

[US Preventive Services Task Force et al. \(2021\). "Screening for Colorectal Cancer: US Preventive Services Task Force Recommendation Statement." JAMA 325\(19\):1965-1977.](#)

[Wolf AMD et al. \(2018\). "Colorectal cancer screening for average-risk adults: 2018 guideline update from the American Cancer Society." CA Cancer J Clin ;68\(4\):250-281.](#)



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