Lynch Syndrome

Your result

Lynn, you may have a higher than typical chance of developing colon cancer and several other cancers.

This is due to a difference in your DNA that is linked to an inherited condition called Lynch syndrome.[1]

Key takeaways

- This does not mean you will develop cancer – just that your chances of developing certain cancers are much higher than typical.[2]
- Follow-up testing and cancer screenings can improve your chances of catching cancer early, when it may be more treatable.
- At least one of your parents most likely has this same DNA difference linked to Lynch syndrome. Each of your children and siblings has a 2 chance of having it as well.[3]
- To help you make sense of what this means for your health, you can ask a genetic counselor or PWNHealth questions about your results and next steps. You can also watch educational videos (coming soon) and join a webinar, all confidential and included with Ancestry Health.
- **If you only do one thing, do this:** Share your physician report with a healthcare provider as soon as possible. Only a healthcare provider can determine whether you have Lynch syndrome.

Download physician report

Scientific result

The test found a DNA difference in your genes. This difference is important for a healthcare provider to know and is included in the physician report you can download and bring to them.

What this means for you

Your chances of developing colon cancer may be as high as 5 in 10.[2]

People with Lynch syndrome have a difference in their DNA that gives them a higher chance of developing certain cancers than someone in the general U.S. population. The two most common cancers they develop are colon cancer and uterine cancer.[2,4]

Your chances of developing colon cancer could be as high as 40%-50%.[2,5] This is much higher than the typical chance of around 4%.[6] Females may also have a 21%-57% chance of developing uterine cancer, compared to the typical chance of around 3%.[7] Lynch syndrome also increases your chances for some cancer sites. The chances depend on your specific DNA difference.[2,8,9] The physician report includes more details about your particular result to discuss with a healthcare provider.

Chances of developing various cancers before age 70[2]

Colon cancer | Uterine cancer | Prostate cancer | Ovarian cancer | Other cancers

With Lynch syndrome	Typical chance
Up to 50 in 100	Around 4 in 100

Having Lynch syndrome doesn't mean you have cancer now or will develop it in the future. What it does mean is that you have a higher chance than typical of developing certain types of cancer, often at a younger age.

You can work with a healthcare provider to make a plan to try to catch cancer early when it is more treatable.

The best way to catch cancers early is with cancer screening like colonoscopies. Regular guidelines recommend people with Lynch syndrome start colonoscopies and more often than typical.[10,11] This is because they have a higher chance of developing colon cancer at a younger age.

> People with Lynch syndrome have a much higher chance than typical of developing certain types of cancer, often at a younger age.

People with Lynch syndrome are most likely to develop colon and uterine cancer. But they may also have a higher than typical chance of developing prostate, ovarian, stomach and several other cancers.[12]

It is important that you talk with a healthcare provider about this test result and discuss appropriate next steps.

It is also important to share this result with your family. Some relatives may have a higher chance of developing cancer and may want to discuss with a healthcare provider whether they should have genetic testing for Lynch syndrome as well.

This can be a lot to take in. To support you, we've partnered with an independent clinician network of board-certified physicians and genetic counselors, PWNHealth, which provided clinical oversight for your test. A PWNHealth genetic counselor can answer any questions you might have about your result and help you make a plan.

Introducing Lynch syndrome

Robin, a certified genetic counselor with the independent clinician network PWNHealth, talks about what this result means for you and your family, what to do next, and more details about Lynch syndrome.

Watch: Introducing Lynch syndrome (video)

Watch: "What do I do next?" (video)

Watch: What does this result mean for my family? (video)

What is Lynch syndrome?

Around 1 in 280 people living in the United States has Lynch syndrome.

You're far from alone. Lynch syndrome is the most common inherited cause of colon cancer.[13] People with Lynch syndrome may also be more likely to develop uterine, prostate, ovarian, stomach and several other cancers.[12,14]

> Lynch syndrome is the most common inherited cause of colon cancer.

The chances of developing these cancers depend on a number of factors, like your personal health history. For instance, your chances of developing colon cancer may be higher if you have had ulcerative colitis, colon polyps, or certain previous cancers.[15,16] The particular DNA difference in your Lynch syndrome is another factor that affects the chances of developing cancer.[8,9]

Cancer is caused by damage to your DNA. Most of the time our cells can fix this damage. But in people with Lynch syndrome, cells cannot fix the damage as well.[17,18]

How inheritance works

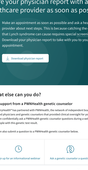
Each child of someone with Lynch syndrome has a 1 in 2 chance of having it as well.

In almost all cases of Lynch syndrome, people inherit the DNA difference from their parents. Your chances are 1 in 2 if you have a DNA difference linked to Lynch syndrome, at least one of your parents probably has it too. It also means each of your biological brothers and sisters has a 1 in 2 chance of having it, as do each of your children.

It is important that you share your result with your family members so they can get tested for Lynch syndrome. Keep in mind that genetic testing for Lynch syndrome is currently not recommended for people under the age of 18.[19]

Here's how the inheritance works. You have two copies of most of your genes, one from each of your parents. To have Lynch syndrome, you only need to inherit a DNA difference linked to Lynch syndrome from one of your parents.[20] This type of inheritance is called autosomal dominant inheritance.

How Lynch syndrome is inherited



It's also important to know that if two people with a DNA difference in the same gene linked to Lynch syndrome have a child together, their child has a 1 in 4 chance of having a serious condition called constitutional mismatch repair deficiency (CMMRD). Children with CMMRD have a greater chance of developing cancers such as brain and blood cancers early in life.[21]

What you can do

This information about your genes is only the beginning.

There are actions people with your result can take. The first thing to do is share your physician report with a healthcare provider and discuss appropriate next steps.

The most important thing people with Lynch syndrome can do is keep up with their healthcare provider to regularly get cancer screenings. Catching cancer early can significantly increase your chances of survival. For colon cancer, for instance, the five-year survival rate is 90% when it's caught early.[22]

> The most important thing people with Lynch syndrome can do is regularly get cancer screenings.

Most people start colon cancer screening between ages 45 and 50. But Lynch syndrome medical guidelines recommend people with Lynch syndrome start colonoscopies between ages 20 to 25, or even earlier depending on family history.[23]

It's important to learn more about Lynch syndrome so that you can be proactive about your health. AncestryHealth® has partnered with PWNHealth, the independent clinician network that provided clinical oversight for your test, to support you and help you understand your result.

We encourage you to take advantage of educational videos created by PWNHealth. You can also join a webinar hosted multiple times by PWNHealth genetic counselors who are ready to answer your questions about Lynch syndrome.

Actions that may make a difference

Lifestyle changes usually don't have a big effect on whether people with Lynch syndrome develop the cancers linked with Lynch syndrome.[24] That's why it's so important to regularly get cancer screenings, as recommended by the National Comprehensive Cancer Network and American Cancer Society. There are however many reasons to continue to live a healthy lifestyle.

- **Don't smoke.** Smoking causes about a third of all cancer deaths in the U.S.[25] It can cause colon cancer in people who have smoked for a long time.[26] In people with Lynch syndrome, smoking can increase the chance of colon cancer even further.[27]
- **Maintain a healthy weight.** Being overweight or obese is linked to about 1-in-12 cancers in the U.S., including colon cancer.[28] Studies have shown it can increase the chances of developing colon cancer in people with Lynch syndrome.[29]
- **Eat less meat and more fiber.** Diet can affect your chances of developing certain cancers. Limiting red meat and processed meat, for instance, and eating more meat and more foods that are high in fiber (like vegetables, fruits, and whole grains) may help reduce the chances of developing colon cancer for some people.[30]
- **Stay active.** Getting enough exercise and increasing your physical activity may help to reduce the chances of cancer for some people, in part by controlling their weight.[31]
- **Drink less.** Having no more than 2 alcoholic drinks a day for men and 1 for women can lower the chances of developing many cancers for some people, including colon cancer.[32]

Remember to consult with a healthcare provider before making any health, treatment, lifestyle, or dietary changes.

Limitations

This test cannot tell you whether you will develop cancer, just whether you have a higher chance of developing it.

This test informs you about differences in your DNA and your chance of developing cancer at some point in your life because of Lynch DNA differences. There are technical limitations to this test:

Read more about limitations

- Scientist results are happen, although they are rare. They might be due to technical problems or because a DNA difference is rarely reviewed scientifically, making it unsure whether, or when, it causes cancer.

This test uses next generation sequencing technology. This technology can detect a majority of the DNA differences in the MLH1, MSH2, MSH6, and PMS2 genes that scientists research has found are linked to Lynch syndrome. But this technology can't detect all DNA differences in these genes. It can also miss some Lynch DNA differences that are too small or too large for the test to detect. Scientists also don't yet know DNA differences linked to Lynch syndrome in all parts of these genes. Some DNA differences in these genes are known to cause Lynch syndrome but they are not in the test. It is unsure, now, how big an additional chance of developing cancer these DNA differences may cause, if any, compared to developing cancer.

There are other genes that could be tested at that may contain a DNA difference that is linked to inherited cancer risk.

Although your DNA doesn't change, your result may be updated as more is learned about which DNA differences and genes are linked to Lynch syndrome.

This test was performed by our laboratory partner, The Mother Genetics Lab, a CLIA-certified laboratory. Results are for informational purposes only.

AncestryHealth® includes telemedicine, both developed and performed by, an Independent Clinician Network genetics partner, and with oversight by PWNHealth, the independent clinician network of board-certified physicians and genetic counselors. Telemedicine services are optional and may not be available on non-Engagement and tests are dependent on overall chances of developing a disease or health condition. The tests are not cleared or approved by the FDA. The results are not intended to diagnose, treat, or prevent any disease or condition. **You should consult a healthcare provider before taking any action, including before making any treatment, dietary, or lifestyle changes.**

If you only do one thing, do this:

Share your physician report with a healthcare provider as soon as possible.

Visits 60 appointment as soon as possible and ask a healthcare provider to review your result. Only a healthcare provider can tell you if that Lynch syndrome can cause significant medical meaning. Download your physician report to take with you to your appointment.

Download physician report

What else can you do?

Get support from a PWNHealth genetic counselor

AncestryHealth® has partnered with PWNHealth, the network of independent board-certified physicians and genetic counselors, to provide clinical oversight for your test. A genetic counselor can answer any questions you have, and help you make a plan. Talk to a genetic counselor with a healthcare provider to decide whether they want to have genetic testing to learn more about their health.

Download your AncestryHealth report

Share your result with your family.

Because Lynch syndrome runs in families, your family members have a much higher chance of having it too.[33] That's why it's important to share your result with your family. Talk to a genetic counselor with a healthcare provider to decide whether they want to have genetic testing to learn more about their health.

Sign up for an informational webinar

Ask a genetic counselor a question

powered by AncestryHealth

Resources

Lynch Syndrome | Cancer | Inheritance | Mutations | Mutations | Genetic Testing

Here are some places to start:

- AncestryHealth's Colon Cancer Foundation
- Lynch Syndrome International
- Genetics Home Reference

Download report