

If your family has a
history of cancer...



Know the Risks
Change the Outcomes

*What a history of cancer
may mean for you and your family—
and the steps you can take
to reduce the risk*

COLARIS®

Family Ties and Colon Cancer

In every family, certain traits are shared and passed on from one generation to the next. Most obvious are physical traits such as eye or hair color, or resemblances that parents and children share. Less obvious are inherited genetic traits that control the tendency to develop specific diseases, such as some cancers.

Many people don't realize that some colon and rectal (colorectal) cancers are hereditary—that is, they're due to a damaged gene that is passed from parent to child. One such condition is called Lynch Syndrome, also known as hereditary nonpolyposis colorectal cancer (HNPCC). In people with Lynch Syndrome, a change or mutation in one of three genes (*MLH1*, *MSH2* or *MSH6*) may allow the formation of small growths of tissue called polyps. Polyps in the colon are usually benign (noncancerous). However, the type of polyp most often seen in Lynch Syndrome, called an adenoma, is precancerous and has the potential to develop into cancer. In Lynch Syndrome these polyps can become cancerous more quickly than expected.

1-800-469-7423



But polyps aren't the only sign of Lynch Syndrome. In fact, nonpolyposis means there aren't very many polyps—typically fewer than 10. Some people with Lynch Syndrome might not have any polyps at all. That's why the diagnosis of Lynch Syndrome relies heavily on other clues, such as family history and genetic testing. Families with Lynch Syndrome usually have two or more members who develop colorectal cancer and/or endometrial (uterine) cancer, often before age 50. In addition to colorectal and endometrial cancer, Lynch Syndrome increases the risk for other cancers, such as ovarian, stomach (gastric), kidney/urinary tract, brain, biliary tract, pancreatic, and small bowel.

www.myriadtests.com

Does Lynch Syndrome Run In Your Family?

You could be at-risk for Lynch Syndrome if:

- you or a relative were diagnosed with colorectal cancer or endometrial cancer before age 50
- you or a relative have had two or more Lynch Syndrome-related cancers (such as two colorectal cancers or both colorectal and endometrial cancer)
- two or more members of your family have been affected with any Lynch Syndrome-related cancer (for example, you have had colorectal cancer and your mother had endometrial cancer)

Please see the end of this brochure for a form to help you and your healthcare provider assess your risk for Lynch Syndrome.

Inheriting A Gene Mutation Puts You at Higher Risk

You inherit all your traits from your parents through the genes they pass on to you. So, if one of your parents carries a Lynch Syndrome gene mutation, you may carry this mutation also. The genes responsible for Lynch Syndrome help keep control of cell growth in your body so that you don't produce more cells than you need. However, when mutations in these genes occur, the genes lose control of cell growth and cancer may develop.

If you carry a Lynch Syndrome gene mutation, you have up to an 82% risk of developing colorectal cancer by age 70 and, for women, up to a 71% risk of developing endometrial cancer by age 70. Risks for other cancers, such as ovarian and stomach, are also increased as well.

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COLARIS®: A Test for Lynch Syndrome (HNPCC)

COLARIS® is a blood test that detects mutations in the specific genes that are related to Lynch Syndrome. It is important to understand that COLARIS® does not tell you whether you have cancer, but it tells you if you are at increased risk for cancer. Knowing this information allows you to take steps to reduce your cancer risk.



1-800-469-7423

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Why is COLARIS® Important For Me?

If your COLARIS® test is positive, you are more likely to develop various cancers, such as colorectal and endometrial cancers. The COLARIS® test results can help estimate your risk for cancer so that you and your healthcare provider can create a personalized cancer risk reduction plan. This plan may include the following:

COLORECTAL CANCER

Recommended surveillance (screening)

- colonoscopy every 1 to 2 years, starting at age 20 to 25, and annually after age 40

Preventive surgery

- in some cases, surgery to remove the colon and/or rectum if precancerous polyps or cancer are discovered

ENDOMETRIAL AND OVARIAN CANCER

Recommended surveillance (screening)

Every 1 to 2 years, starting at age 25 to 35:

- gynecologic (pelvic) exam
- transvaginal ultrasound (which uses sound waves to produce an "image" of the uterus and ovaries)
- endometrial aspirate (to provide a tissue sample for cancer screening)
- CA-125 (a blood test that may detect ovarian cancer)

Preventive surgery

- surgery to remove the uterus and ovaries if endometrial or ovarian cancer is detected, or when childbearing is concluded

Screening for other Lynch Syndrome-related cancers may be recommended based on family history.



Why is COLARIS® Important For My Family?

Gene mutations can be passed on from one generation to the next in a family. The results of COLARIS® may also be important for your children, siblings, parents, and other close relatives. If you have a mutation in one of the Lynch Syndrome (HNPCC) genes, other family members can be tested to determine if they also have the same mutation. If they do, they can follow the recommended screening guidelines that will likely reduce their risk of cancer.

Equally as important, COLARIS® can help by letting family members know that they are not at an increased risk for cancer. If a person tests negative for a gene mutation that has been found in a family, he or she has the same cancer risks as the general population and will not need increased screenings.

What is Involved in Being Tested With COLARIS®?

If you are considering COLARIS®, your doctor, genetic counselor, or other healthcare professional will carefully evaluate your personal and family history. He or she will discuss possible COLARIS® results and what the results could mean for you and your family. If you choose to be tested with COLARIS®, your physician or other healthcare provider will collect a small amount of blood and send it to Myriad Genetic Laboratories, Inc. for analysis.

AFAP and MAP—other colorectal cancer syndromes you should know about

Many people develop polyps in their colon. However, specific types of polyps can be a clue to several colorectal cancer syndromes. Two conditions that are sometimes confused with Lynch Syndrome are attenuated familial adenomatous polyposis (AFAP) and *MYH*-associated polyposis (MAP). As in some cases of Lynch Syndrome, AFAP and MAP may produce small numbers of colon polyps—usually between 10 and 99. Because Lynch Syndrome, AFAP, and MAP can be similar, it can be difficult to know which condition is more likely by looking at colon polyps alone. That's why it's very important for your healthcare provider to know as much as possible about your history, and your family's history, of cancer and polyps. This information will help to determine whether genetic testing for AFAP and MAP (with a test called COLARIS AP®) is appropriate for you.

Be Ready Against Cancer Now

Remember that early detection is critical to preventing and treating cancer. COLARIS® can help you determine your risk so that you can fight hereditary cancer before it even develops. Knowing your COLARIS® test result may enable your family members to make informed choices and decisions about their own healthcare and cancer risk reduction strategies. Now is the time to ask your doctor about genetic testing and how it may benefit you and your family.

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Some Frequently Asked Questions

Will my health insurance pay for the COLARIS® test?

Insurance coverage for genetic testing is excellent, with the majority of patients covered for testing. Although each case is unique, the average patient pays coinsurance of less than 10% of the test price.*

Can my health insurance company refuse coverage based on the results?

No. Federal laws (HIPAA and GINA) prohibit discrimination regarding eligibility, benefits or premiums based on genetic information. Most states have additional laws that protect patients from genetic discrimination.



Will anyone else know the results of my test?

No, the results are released only to the healthcare provider who ordered the test, who then interprets them for you. Your privacy is protected.

Where can I get more information about COLARIS®?

Please talk with your physician or other healthcare provider. You can also call Myriad Genetic Laboratories at 1-800-4-MYRIAD, or visit the Myriad Web site at www.myriadtests.com.

* Test prices may be confirmed by calling Myriad Customer Service at 1-800-469-7423. Unmet deductibles are always the responsibility of the patient.

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Assessing the Risk

To find out if there is a pattern of cancer in your family, fill out the questionnaire below as fully as you can. Then take it with you to your next visit with your healthcare provider. Having the facts on your personal and family histories can help guide your healthcare.

	COLON CANCER before age 50	COLON CANCER after age 50	ENDOMETRIAL CANCER before age 50	ENDOMETRIAL CANCER after age 50	POLYPS (How many? Were they precancerous or cancerous?)	OTHER CANCERS At any age (e.g. ovarian, stomach, kidney, urinary tract, biliary tract, brain, small bowel, pancreatic)
Yourself						
Your mother/father						
Your sister/brother						
Your daughter/son						
Mother's side						
Your grandmother/grandfather						
Your aunt/uncle						
Your cousin						
Father's side						
Your grandmother/grandfather						
Your aunt/uncle						
Your cousin						

THIS INFORMATION IS PROVIDED TO HELP ANSWER SOME OF YOUR QUESTIONS WITH RESPECT TO CANCER RISKS, HEREDITARY CANCER RISKS AND PRE-DISPOSITIONAL CANCER TESTING. IT IS GENERAL IN NATURE AND IS NOT INTENDED TO PROVIDE A DEFINITIVE ANALYSIS OF YOUR SPECIFIC RISK FACTORS FOR CANCER OR YOUR HEREDITARY CANCER RISKS. YOU SHOULD NOT RELY ON THE INFORMATION PROVIDED HEREIN; BUT RATHER, YOU SHOULD CONSULT WITH YOUR DOCTOR OR A QUALIFIED HEALTHCARE PROFESSIONAL TO REVIEW THIS INFORMATION ALONG WITH YOUR INDIVIDUAL HEALTH CONDITIONS AND RISK FACTORS.

Where to Look for Information and Support

*To learn more about colorectal and
endometrial cancer, try the following sources:*

Myriad Genetic Laboratories
1-800-4-MYRIAD
www.myriadtests.com
e-mail: helpmed@myriad.com

American Cancer Society
1-800-ACS-2345
www.cancer.org

American Gastroenterological Association
1-301-654-2055
www.gastro.org

Colon Cancer Alliance
1-877-422-2030 (toll free)
www.ccalliance.org

Colorectal Cancer Network
1-301-879-1500
www.colorectal-cancer.net

Gynecologic Cancer Foundation
1-800-444-4441 or 1-312-578-1439
www.wcn.org/gcf/

National Society of Genetic Counselors
1-610-872-7608
www.nsgc.org/resourcelink.asp

National Cancer Institute
Cancer Information Service
1-800-4-CANCER
www.nci.nih.gov



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