

Lynch Syndrome

Lynch syndrome (LS) is a condition that increases a person's chance of getting cancer, especially colorectal cancer (cancer of the large bowel or rectum) at a young age (before age 50). For women, it also increases the chance of getting cancer of the endometrium (lining of the uterus or womb) and ovary.

About 3 out of every 100 colorectal cancers are caused by Lynch syndrome. Women with LS have a 30% to 60% lifetime risk of developing endometrial cancer. A genetic test can tell if your cancer was caused by genes associated with Lynch syndrome.



CAUSES OF LYNCH SYNDROME

LS is *inherited*. This means it runs in families. It is caused by changes in genes (mutations) that can be passed from a parent to his/her children. In reproduction, each parent provides one copy of each gene, giving the resulting embryo two copies of each gene. There only needs to be one copy of the gene with the LS-associated mutation for a person to have increased risk of Lynch syndrome. So if a person has LS, there is a 50% chance that his/her child has inherited a mutated copy of an LS-related gene. The person's parents and other blood relatives are also more likely to have Lynch syndrome.

GENETIC TESTING FOR LYNCH SYNDROME

Health care experts¹ recommend that every person with a new diagnosis of colorectal cancer should be offered genetic testing for Lynch syndrome.

Genetic testing is a kind of blood test that can confirm or rule out that a person has the altered genes associated with Lynch syndrome. It can tell if a person's colorectal cancer was caused by Lynch syndrome. If it was, family members may also benefit from genetic counseling and testing because of their increased risk of having inherited a gene mutation associated with LS.

BENEFITS OF GENETIC TESTING TO FAMILY MEMBERS

Blood relatives can be tested to learn if they also have Lynch syndrome. If they have Lynch syndrome, they can get screened for colorectal cancer sooner (before age 50) and more often. The most common ways of screening for colorectal cancer are colonoscopy and sigmoidoscopy. In addition to increased screening for cancer, preventive surgery may be considered.

OTHERS WHO MAY BENEFIT FROM COUNSELING AND TESTING FOR LS

Other people who might benefit from genetic counseling are:

- People diagnosed with colorectal cancer in the past (especially before age 50).
- People with several family members who had colorectal cancer or cancer of the uterus.

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¹ Evaluation of Genomic Applications in Practice and Prevention (EGAPP) Work Group

FOR MORE INFORMATION

First, talk with your doctor or other health care provider.

More information on colorectal cancer, Lynch syndrome, cancer genetic testing, and genetic counseling services can be found at the resources listed below:

Centers for Disease Control and Prevention

- *Genetic Testing for Lynch Syndrome*
http://www.cdc.gov/genomics/gtesting/EGAPP/recommend/lynch_consumer.htm

Connecticut Department of Public Health

- *Cancer Genetic Counselors in Connecticut*
http://www.ct.gov/dph/lib/dph/genomics/cancer_genetic_counselors_ct2015.pdf

National Cancer Institute

- *Understanding Cancer*
<http://www.ncbi.nlm.nih.gov/books/NBK20362/>
- *NCI Contact Center* 1-800-4CANCER
<http://www.cancer.gov/contact/contact-center>

National Center for Biotechnology Information

- GeneReviews
 - *Lynch Syndrome*
<http://www.ncbi.nlm.nih.gov/books/NBK1211/>

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