Ambry Genetics®

Clinician Management Resource for *RAD51C*

This overview of clinical management guidelines is based on this patient's positive test result for an *RAD51C* gene mutation. Unless otherwise stated, medical management guidelines used here are limited to those issued by the National Comprehensive Cancer Network® (NCCN®)[1] in the U.S. Please consult the referenced guideline for complete details and further information.

Clinical correlation with the patient's past medical history, treatments, surgeries and family history may lead to changes in clinical management decisions; therefore, other management recommendations may be considered. Genetic testing results and medical society guidelines help inform medical management decisions but do not constitute formal recommendations. Discussions of medical management decisions and individualized treatment plans should be made in consultation between each patient and his or her healthcare provider, and may change over time.

SCREENING/SURGICAL CONSIDERATIONS[1]	AGE TO START	FREQUENCY
Ovarian Cancer		
Recommend risk-reducing salpingo-oophorectomy	Starting at 45-50 years old (or earlier based on a specific family history of an earlier onset ovarian cancer)*	N/A
Breast Cancer		
Mammography and consider breast MRI with and without contrast	40 years old	Annually
Other		
For patients of reproductive age, counsel about prenatal diagnosis and assisted reproduction, including pre-implantation genetic testing.	Individualized	N/A
Counsel for risk of autosomal recessive condition in offspring.	Individualized	N/A

* The current evidence is insufficient to make a firm recommendation as to the optimal age for this procedure. Based on the current, limited evidence base, a discussion about surgery should be held around age 45–50 years or earlier based on a specific family history of an earlier onset ovarian cancer.

1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic. V2.2024. © National Comprehensive Cancer Network, Inc. 2023. All rights reserved. Accessed September 27, 2023. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.

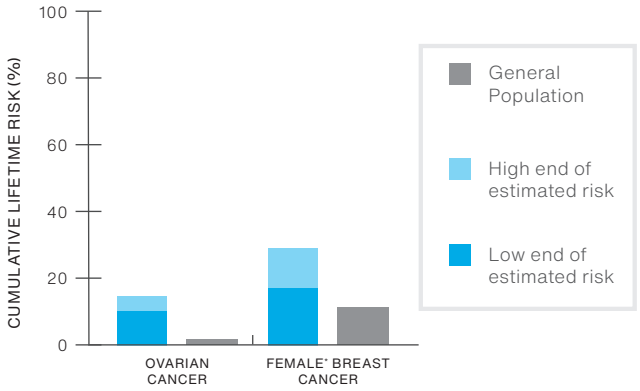
Understanding Your Positive *RAD51C* Genetic Test Result

INFORMATION FOR PATIENTS WITH A PATHOGENIC MUTATION OR VARIANT, LIKELY PATHOGENIC

5 Things To Know

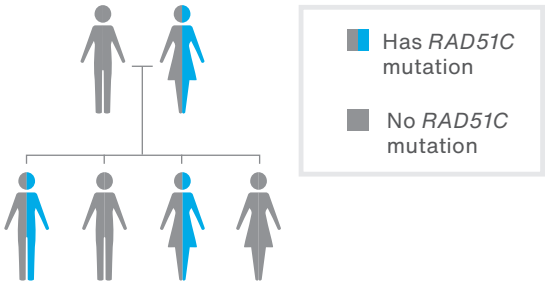
1	*RAD51C* mutation	Your testing shows that you have a pathogenic mutation or a variant that is likely pathogenic in the *RAD51C* gene.
2	Cancer risks	You have an increased chance to develop ovarian cancer and female* breast cancer.
3	What you can do	Risk management decisions are very personal. There are options to detect cancer early or lower the risk to develop cancer. It is important to discuss these options with your doctor and decide on a plan that works for you.
4	Other medical concerns	Individuals with *RAD51C* mutations may have an increased risk to have a child with Fanconi anemia, but only if their partner also carries a mutation in the *RAD51C* gene. Fanconi anemia is a rare condition that can cause specific physical characteristics, bone marrow failure, and an increased risk of certain cancers.
5	Family	Family members may also be at risk – they can be tested for the *RAD51C* mutation that was identified in you. It is recommended that you share this information with your family members so they can learn more and discuss with their healthcare providers.

RAD51C Mutation Lifetime Cancer Risks**



RAD51C Mutations in the Family

There is a 50/50 random chance to pass on a *RAD51C* mutation to each of your children. The image below shows that everyone can carry and pass on these mutations, regardless of their sex at birth.



* Refers to sex assigned at birth
** Because risk estimates vary in different studies, only approximate risks are given. Cancer risks will differ based on individual and family history.

RESOURCES

- Ambry's Hereditary Cancer Site for Families patients.ambrygen.com/cancer
- American Cancer Society cancer.org
- Bright Pink brightpink.org
- FORCE facingourrisk.org
- Imerman Angels imermanangels.org
- Susan G. Komen Foundation komen.org
- Genetic Information Nondiscrimination Act (GINA) ginahelp.org
- National Society of Genetic Counselors nsgc.org
- Canadian Society of Genetic Counsellors cagc-accg.ca

Please discuss this information with your healthcare provider. The cancer genetics field is continuously evolving, so updates related to your *RAD51C* result, medical recommendations, and/or potential treatments may be available over time. This information is not meant to replace a discussion with a healthcare provider, and should not be considered or interpreted as medical advice.

MKT-ONCO-FLYR-10030-EN v2 | 10.24.23
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