Ambry Genetics®

Client Management Resource for individuals with **two** (biallelic) likely pathogenic or pathogenic mutations in *MUTYH*

This overview of clinical management guidelines is based on this patient's positive test result for **two** (biallelic) *MUTYH* gene mutations. 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
Colorectal Cancer		
Small adenoma burden that can be handled endoscopically		
Colonoscopy and polypectomy	Individualized	Every 1-2 years
Surgical evaluation and counseling if appropriate	Individualized	N/A
Consider chemoprevention to facilitate management of the remaining rectum for patients who have undergone surgery.**	Post-surgery	N/A
Adenoma burden that cannot be handled endoscopically		
Colectomy with ileorectal anastomosis (IRA)	Individualized by polyp burden	N/A
Consider proctocolectomy with IPAA if dense rectal polyposis not manageable with polypectomy.	Individualized	N/A
If colectomy with IRA: Post-colectomy surveillance should include endoscopic evaluation of the rectum.	Post-surgery	Every 6-12 months depending on polyp burden.
Consider chemoprevention to facilitate management of the remaining rectum for patients who have undergone surgery.**	Post-surgery	N/A
Extracolonic Cancer		
Physical examination	Individualized	Every 12 months
Consider upper endoscopy, including complete visualization of the ampulla of Vater [Refer to the NCCN Guidelines for follow-up of duodenoscopic findings].	30-35 years old (baseline)	Individualized

* It is recommended that patients be managed by physicians or centers with expertise in *MUTYH*-associated polyposis (MAP) and that management be individualized to account for genotype, phenotype, and personal considerations.

** Options have not been studied in the specific setting of colorectal cancer and biallelic *MUTYH* gene mutations.

1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Colorectal. V2.2022. © National Comprehensive Cancer Network, Inc. 2022. All rights reserved. Accessed December 20, 2022. 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.

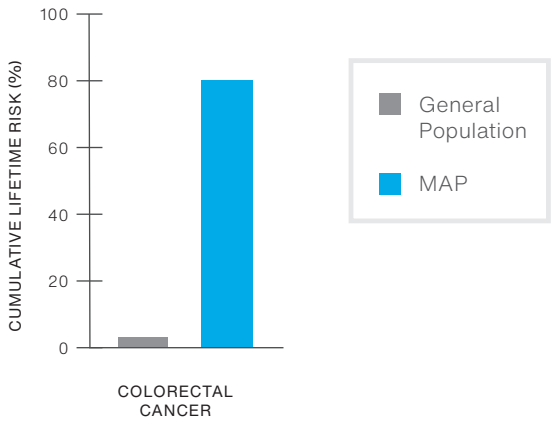
Understanding Your Positive *MUTYH* Genetic Test Result

INFORMATION FOR PATIENTS WITH **TWO PATHOGENIC MUTATIONS** OR **VARIANTS, LIKELY PATHOGENIC**

5 Things To Know

1	*MUTYH* mutation	Your testing shows that you have two pathogenic mutations or variants that are likely pathogenic in the *MUTYH* gene.
2	*MUTYH*-associated polyposis (MAP)	People with two *MUTYH* mutations have *MUTYH*-associated polyposis, also referred to as MAP.
3	Cancer risks and other medical concerns	You have an increased chance to develop gastrointestinal polyps and colorectal cancer, and possibly gastric/duodenal polyps or duodenal cancer.
4	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.
5	Family	Family members may also be at risk – they can be tested for the *MUTYH* mutations that were identified in you. It is recommended that you share this information with family members so they can learn more and discuss this with their healthcare providers.

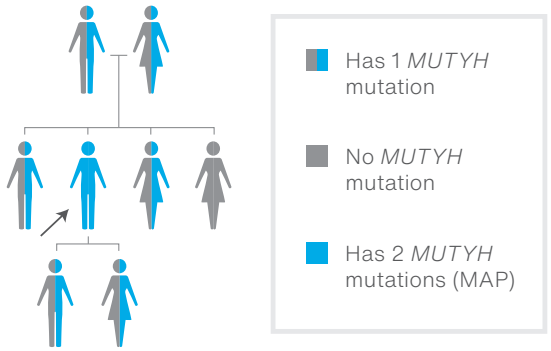
Lifetime Cancer Risks With MAP (%)*



*Cancer risks will differ based on individual and family history.

MUTYH Mutations in the Family

You have two *MUTYH* mutations, therefore, any children you have will inherit one of them. Your children are not at risk to have MAP unless your partner has at least one *MUTYH* mutation as well. Each of your parents carries at least one *MUTYH* mutation. This means your brothers and sisters have a 25% chance to have MAP, a 50% chance to inherit one *MUTYH* mutation, and a 25% chance to inherit no *MUTYH* mutations. The image to the right shows that both men and women can carry and pass on these mutations.



Reach Out

RESOURCES

- Ambry's Hereditary Cancer Site for Families patients.ambrygen.com/cancer
- Hereditary Colon Cancer Foundation hcctakesguts.org
- Genetic Information Nondiscrimination Act (GINA) ginahelp.org
- National Society of Genetic Counselors nsgc.org
- Canadian Association 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 *MUTYH* 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.

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