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Client Management Resource for individuals with **two** (biallelic) likely pathogenic or pathogenic mutations in *MBD4*

This overview of clinical management guidelines is based on this patient's positive test result for two (biallelic) pathogenic or likely pathogenic *MBD4* variants. Unless otherwise stated, medical management guidelines used here are limited to those issued by the National Comprehensive Cancer Network (NCCN) 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 decision 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.

SCREENING/SURGICAL CONSIDERATIONS[1]	AGE TO START	FREQUENCY
Colorectal Cancer*,^		
High quality colonoscopy	18-20 years old or date of diagnosis	Every 2-3 years if negative
Acute Myeloid Leukemia^		
Complete blood count (CBC)	At diagnosis	Individualized
Uveal Melanoma^^		
Annual ophthalmologic exam	At diagnosis	Individualized

* The colorectal polyposis phenotype and colorectal cancer risk for individuals with a heterozygous *MBD4* pathogenic variant is unknown.

^ For patients with biallelic pathogenic or likely pathogenic variants.

^^ For patients with biallelic or heterozygous pathogenic or likely pathogenic variants.

1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Colorectal, Endometrial, and Gastric. v3.2024. © National Comprehensive Cancer Network, Inc. 2024. All rights reserved. Accessed October 31, 2024. 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 *MBD4* Genetic Test Result

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

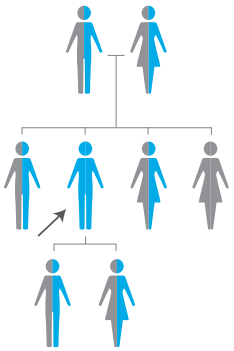
5 Things To Know

1	Result	Your testing shows that you have two pathogenic or likely pathogenic variants in the *MBD4* gene.
2	*MBD4*-associated neoplasia syndrome	People with two pathogenic or likely pathogenic *MBD4* variants have *MBD4*-associated neoplasia syndrome (MANS).
3	Cancer risks and other medical concerns	You have an increased chance to develop gastrointestinal polyps, colorectal cancer, a blood disorder known as myelodysplastic syndrome, and/or a type of blood cancer called acute myelongenous leukemia (AML).
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 healthcare provider and decide on a plan that works for you.
5	Family	Family members may also be at risk – they can be tested for the pathogenic or likely pathogenic *MBD4* variants 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.

MBD4 in the Family

You have two pathogenic or likely pathogenic *MBD4* variants, therefore, any children you have will inherit one of them. Your children are not at risk to have MANS unless your partner has at least one pathogenic or likely pathogenic *MBD4* variant as well.

Each of your parents carries at least one pathogenic or likely pathogenic *MBD4* variant. This means your siblings have a 25% chance to have MANS, a 50% chance to inherit one pathogenic or likely pathogenic *MBD4* variant, and a 25% chance to inherit no pathogenic or likely pathogenic *MBD4* variants.



- Has 1 *MBD4* pathogenic or likely pathogenic variant
- No *MBD4* pathogenic or likely pathogenic variants
- Has 2 *MBD4* pathogenic or likely pathogenic variants (MANS)

RESOURCES

- 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 *MBD4* 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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