Southeast of Scotland Genetic Service
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MUTYH Associated Polyposis (MAP)

Information for Patients and Relatives

Patient Label

This leaflet is written for people who have one altered and one working copy of the *MUTYH* gene. If you have this result, you are a 'carrier' and will not develop MUTYH Associated Polyposis (MAP). There are no implications for your own health.

However, we can offer your close blood relatives a genetic test because there is a low chance of them having two altered copies of this gene, causing MUTYH Associated Polyposis and need bowel screening. The genetic service will provide specific guidance about who in the family could be offered genetic testing.

What is MUTYH Polyposis (MAP)?

MAP is an inherited condition which causes people to be predisposed to developing bowel polyps and cancers.

What is a polyp?

A polyp is a small non-cancerous growth. Polyps usually occur in the colon (large bowel). It is normal for an adult to develop 1 or 2 polyps as they get older but it is unusual to have lots of polyps. When lots of polyps occur we call this Polyposis.

Polyps are usually harmless. However, if they are left for several years, some types of polyps can develop into cancers. If someone has lots of polyps it is more likely that one of them might develop into a cancer.

Some people are more prone to developing lots of polyps because of an inherited condition. One of these conditions is called **M**UTYH-**A**ssociated **P**olyposis (MAP), after the gene which causes it.

What is the *MUTYH* gene?

Genes are instructions which tell our bodies how to work. We each have about 24,000 genes. All our genes come in pairs. We get one copy from our mother and one from our father. Each gene has a specific job. The *MUTYH* gene is important in repairing damage to cells. If part of the gene is missing or altered, it will not be able to do its job properly.

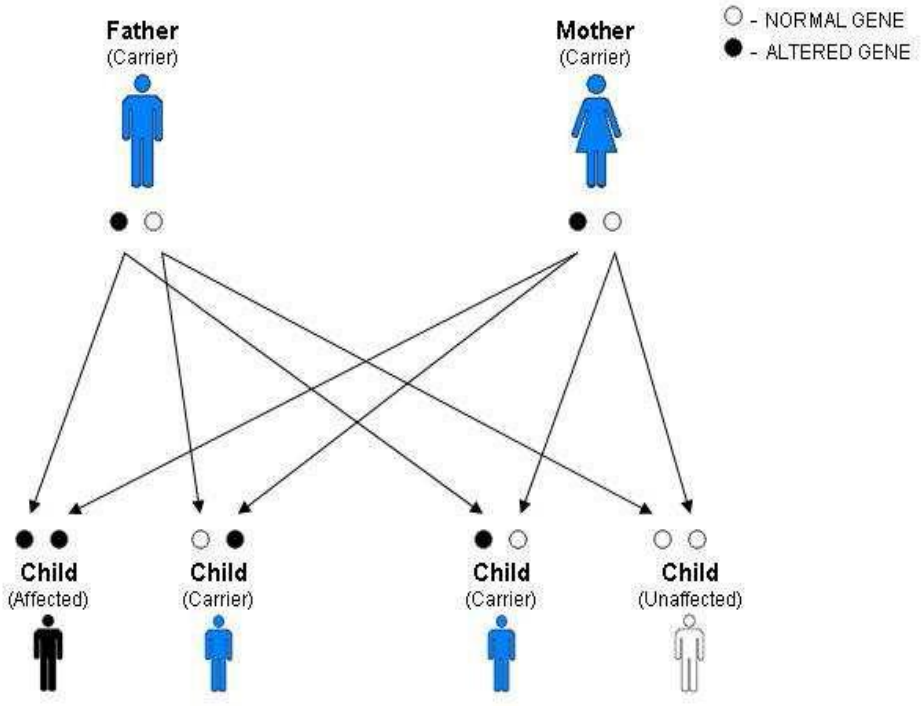
Possible gene test results and advice

It is only if we inherit an alteration in **both** copies of this gene that problems occur. Lots of polyps develop because there is no working copy of the gene, increasing the risk of colorectal cancer. A person with this gene test result should be bowel aware and would need screening by colonoscopy every 2 years from 18 years of age.

People who have **one** altered and one working copy are carriers of MAP, but do not develop the condition themselves. This is because they still have a working copy of the gene which is sufficient. A person with this gene test result should be bowel aware and participate in the National Bowel Screening Programme.

How does MAP run in famiies

MAP is inherited in a way called autosomal recessive. When a couple has a child they each pass on one copy of each gene at random. If both parents are carriers for MAP there are 4 possible combinations of the genes that the child may receive. This is shown in the diagram below.



What does it mean for my relatives?

As you are a MUTYH carrier, if you have children, there is only a low risk of them having alterations in **both** their *MUTYH* genes. This is because the chance of both you and your partner being carriers is small.

Your partner could have the gene test. About 1-2% (1/50-1/100) people in the Northern European population are carriers. Your children would only need to consider gene testing, if your partner were also a MUTYH carrier. Alternatively, your adult children could have the gene test when they are 18 years of age or older.

Your parents and siblings could also have the MUTYH gene test.

To get tested, relatives who live in Lothian, Fife or the Borders can request an appointment with us. Relatives living outside this region could ask their GP to refer them to their local genetics service.

Local contacts

Your local genetics service:

South East of Scotland Clinical Genetic Services
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Crewe Road South
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