CONDITION

# Multiple polyposis of the colon

Multiple polyposis of the colon means having numerous growths in the colon or rectum, sometimes because of an inherited condition.

**WHAT IT IS**
Numerous polyps growing in the colon or rectum

**BODY SYSTEM**
Digestive system

**MAIN SYMPTOMS**
Often none, rectal bleeding, bowel changes, abdominal pain

**WHAT CAUSES IT**
Inherited gene changes or an unknown combination of factors

**HOW IT IS DIAGNOSED**
Colonoscopy, tissue testing, and sometimes genetic testing

**MAIN TREATMENT**
Regular colonoscopy, polyp removal, and sometimes surgery

**CAN IT BE CURED?**
Sometimes - surgery can remove the affected colon

**IS IT AN EMERGENCY?**
Sometimes, with heavy bleeding or severe abdominal pain

**LONG-TERM OUTLOOK**
Cancer risk can fall with lifelong surveillance and treatment

## Overview

Multiple polyposis of the colon means that many polyps are present in the colon or rectum. Polyps are growths that form from the inner lining of the bowel. Most do not cause symptoms.

This is a descriptive condition rather than one single diagnosis. The polyps may be adenomas, which can become cancerous over time; serrated polyps, some of which can also lead to cancer; or less common types such as hamartomatous polyps, which form from an unusual mixture of normal tissues.

Having one or two common polyps does not usually mean that you have a polyposis condition. Concern increases when there are many polyps, when they develop at a young age, or when relatives have had numerous polyps or related cancers.

Some people have an inherited polyposis syndrome caused by a gene change. Examples include familial adenomatous polyposis, often called FAP; MUTYH-associated polyposis; juvenile polyposis syndrome; and Peutz-Jeghers syndrome. Serrated polyposis syndrome usually has a less clearly defined cause.

Identifying the type matters because it affects your risk of colorectal cancer, the tests you may need, and whether close relatives should be offered genetic assessment.

## Symptoms

Many people have no symptoms. Polyps are often found during a colonoscopy performed for screening, because of a family history, or while investigating another bowel concern.

When symptoms occur, they may include:

Anaemia means that the blood does not carry as much oxygen as it should. Slow bleeding from polyps can reduce the body's iron stores without causing visible blood in the stool.

These symptoms have many possible causes. Their presence does not show that you have polyposis or colorectal cancer, but persistent symptoms should be assessed.

Some inherited syndromes can also affect other parts of the body. The possible signs depend on the syndrome. They may include polyps elsewhere in the digestive tract, dark spots on the lips or inside the mouth, or certain non-bowel growths.

- Blood from the rectum or blood mixed with stool
- Ongoing constipation, diarrhoea, or a change in stool shape
- Abdominal discomfort, cramping, or bloating
- Tiredness or shortness of breath from iron-deficiency anaemia
- Unexplained weight loss

## Causes and risk factors

An inherited gene change causes some cases. Genes are instructions that help cells grow and repair themselves. A harmful change can allow polyps to form more easily.

FAP is usually caused by a change in the APC gene. It is generally inherited in an autosomal dominant pattern, meaning each child of an affected parent has a chance of inheriting the change. A new APC change can also arise in someone with no known family history.

MUTYH-associated polyposis is caused by harmful changes in both copies of the MUTYH

gene. Parents who each carry one changed copy often have no polyposis themselves.

Other genes can cause less common adenomatous or hamartomatous polyposis syndromes. However, genetic testing does not find a cause in every person with multiple polyps.

Serrated polyposis often appears to result from a combination of genetic and environmental factors rather than one identifiable inherited change. Smoking is associated with serrated polyps, but it does not explain every case.

Features that make an inherited cause more likely include:

Not knowing of an affected relative does not rule out an inherited condition. Families may be small, relatives may not have been tested, or a gene change may have started with one person.

- Numerous polyps or repeated development of new polyps
- Polyps appearing earlier than expected
- Several relatives with polyps or colorectal cancer
- A relative with a confirmed polyposis-related gene change
- Findings outside the colon that fit a particular syndrome

## Diagnosis

Colonoscopy is the main test. A flexible camera is passed through the rectum to examine the entire colon. Polyps can be counted, measured, photographed, and usually removed or sampled during the procedure.

A laboratory then examines the tissue under a microscope. This is called histology. It identifies the type of polyp and looks for dysplasia, meaning abnormal cells that may be moving toward cancer.

One colonoscopy may not provide the full picture. The bowel preparation or polyp burden can affect how clearly the lining is seen. Previous colonoscopy and pathology reports are important because the total number of polyps found over time may guide diagnosis.

Your assessment may also involve:

The criteria used to diagnose a polyposis syndrome are specific to the number, type, size, and location of polyps. Age and family history also matter. There is no single polyp count that defines every form of multiple polyposis.

A negative genetic test does not always exclude inherited risk. Current tests cannot identify every relevant gene change, and some forms of polyposis do not yet have a known single-gene cause.

- A detailed personal and family cancer history
- Blood tests for anaemia
- Genetic counselling and a blood or saliva genetic test
- Examination of the stomach or small intestine for certain syndromes
- Scans or other checks when a syndrome can affect additional organs

## Treatment and management

Management aims to remove concerning polyps, prevent colorectal cancer where possible, and check for problems linked to the underlying syndrome.

Colonoscopy with polyp removal may be enough when the number and size of polyps remain manageable. Follow-up is usually more frequent than routine population screening, but the timing is based on the specific syndrome, findings, age, and previous procedures.

Surgery may be considered when there are too many polyps to remove safely, when polyps repeatedly return, or when tissue testing shows advanced cell changes or cancer. The operation may remove the colon while keeping the rectum, or remove both the colon and rectum.

Depending on the operation, the surgeon may join the small intestine to the rectum, create an internal pouch connected to the anus, or make a stoma. A stoma brings the bowel through an opening in the abdomen so waste can pass into a bag. Each option has different effects on bowel function and future surveillance.

Surgery can greatly reduce cancer risk in the removed bowel, but it does not remove the underlying inherited tendency. Any rectum, pouch, or remaining digestive tract may still need regular examination.

Some syndromes require surveillance outside the colon, such as upper endoscopy to inspect the stomach and first part of the small intestine. Other checks are selected according to the gene involved rather than given to everyone with multiple polyps.

Medicines have been studied for reducing polyp numbers in some inherited syndromes. They do not replace colonoscopy or recommended surgery and can have important side effects. Their use requires specialist supervision.

## Complications

The main long-term concern is colorectal cancer. Risk is not the same for every person. It is influenced by the type and number of polyps, the underlying syndrome, age, tissue findings, and whether surveillance and treatment are maintained.

Other possible complications include:

Some hamartomatous syndromes can cause bowel obstruction or intussusception, in which one section of bowel slides inside another. This is more often related to small-intestinal polyps than colon polyps and needs prompt assessment.

- Ongoing blood loss and iron-deficiency anaemia
- A large polyp partially blocking the bowel
- Bleeding or, rarely, a hole in the bowel after polyp removal
- Cancers or growths outside the colon in certain inherited syndromes
- Changes in stool frequency, urgency, or continence after surgery

## Prevention

An inherited polyposis syndrome cannot currently be prevented. It is not caused by something you or your family did.

The development of cancer can often be prevented or its risk reduced through planned colonoscopy, removal of polyps, and surgery when necessary. These steps do not guarantee that cancer will never occur, so ongoing follow-up remains important.

Not smoking, staying physically active, and following a balanced diet support general health. They should not be treated as substitutes for surveillance in someone with multiple polyps.

If a harmful gene change is found, adult relatives can consider targeted testing for that same change. Testing can identify who needs syndrome-specific follow-up and who did not inherit the known family change. Testing children is considered when results could affect care during childhood or adolescence.

## Living with it and what to expect

Multiple polyposis usually requires long-term follow-up. Polyps can develop again after earlier ones have been removed, so surveillance is based on the cumulative pattern over months and years rather than one colonoscopy result.

Some people can continue with regular colonoscopic removal for many years. Others develop

a polyp burden that makes surgery the safer long-term option. If surgery is advised, you should have time to discuss likely bowel function, fertility or sexual effects, work, diet, and whether a temporary or permanent stoma may be needed.

Life after colon surgery differs between people. Bowel movements are often more frequent, particularly at first, and may settle over time. Diet and medicines may help manage stool consistency or urgency, but the appropriate approach depends on the operation.

Appointments can involve more than bowel checks if an inherited syndrome affects other organs. Keeping copies of colonoscopy, pathology, surgery, and genetic reports can help when care involves several specialists or when relatives seek assessment.

Uncertainty can be difficult, especially when genetic testing does not find a cause. Follow-up can still be planned from your actual polyp history and family history. Many people continue their usual family, work, and social lives while arranging regular tests, though treatment and surgery may require periods of adjustment.

## When to get medical help

Arrange a routine medical appointment if you have persistent rectal bleeding, a lasting change in bowel habits, unexplained tiredness, abdominal discomfort, or unintentional weight loss. Follow-up is also important if you have missed a planned surveillance colonoscopy.

Ask about genetic assessment if you have numerous or repeatedly recurring polyps, polyps at a young age, or close relatives with multiple polyps or early colorectal cancer.

Seek urgent medical help for:

Call emergency services if bleeding is accompanied by fainting, confusion, severe weakness, breathing difficulty, or signs of shock such as cold, clammy skin.

- Heavy or continuing rectal bleeding
- Black, sticky stools with weakness or dizziness
- Severe or rapidly worsening abdominal pain
- Repeated vomiting with abdominal swelling
- Inability to pass stool or gas
- Fever or increasing pain after colonoscopy or polyp removal

## Common questions

Is multiple polyposis the same as colon cancer?

No. Polyps are not automatically cancer. However, some types can become cancerous over time, and having many of them may substantially increase risk. Removing polyps and maintaining surveillance can reduce that risk.

How many colon polyps count as polyposis?

There is no single number for every syndrome. Diagnosis considers the total number found over time, their type and location, your age, and your family history. Some syndromes use specific clinical criteria.

Will I have to have my colon removed?

Not everyone does. Colonoscopy may control a manageable number of polyps. Surgery becomes more likely when polyps are too numerous to remove safely, contain advanced abnormal cells, or cannot be monitored reliably.

Can my children inherit it?

They may if your polyposis has an inherited cause. The chance differs by gene and inheritance pattern. A genetics professional can explain what a confirmed result means for children, siblings, and other relatives.

Can polyps come back after they are removed?

A removed polyp does not usually grow back when it has been completely taken out, but new polyps can form elsewhere. This is why surveillance continues even after a colonoscopy has cleared existing polyps.

What if my genetic test is negative?

A negative result does not erase your colonoscopy findings or family history. It may mean that no currently recognised harmful change was found. Your follow-up can still be based on the number and type of polyps you have developed.

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