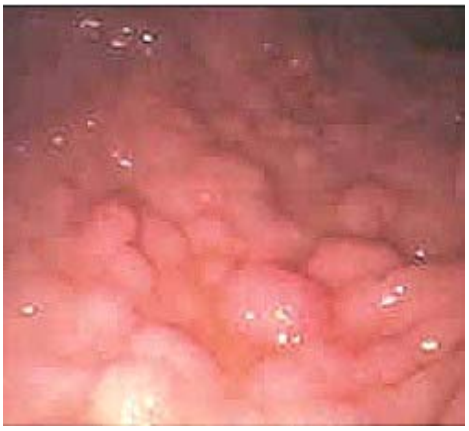
# Familial Adenomatous Polyposis (FAP)

## What is Familial Adenomatous Polyposis?

***Familial Adenomatous Polyposis is a condition in which the tendency to develop large numbers of a certain type of polyp is inherited.***

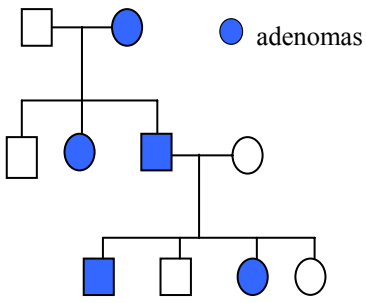


FAP is a condition in which affected individuals typically develop hundreds to thousands of adenomatous polyps (or adenomas) in the gastrointestinal tract at a young age. Adenomas are pre-cancerous growths, which most often form in the colon, but may also be found in the stomach and small intestine. These polyps can vary in size from very small to so large that they block the colon. These polyps usually develop in the teenage years or in young adulthood. The main concern with these polyps is that they will become cancerous. While the average person has about a 5-6% chance of developing colorectal cancer during his/her lifetime, individuals with FAP have a near 100% lifetime risk of developing colorectal cancer if untreated.

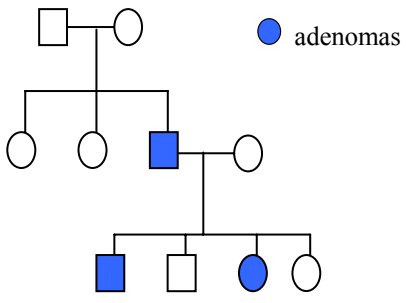
## What is the Inheritance of FAP?

***FAP is an autosomal dominant condition with 1/3 of individuals affected having a new mutation.***

FAP is a dominant condition, meaning that individuals with FAP have a 50% chance of passing the FAP gene mutation (change) to each of their children. FAP is caused by a mutation in the Adenomatous Polyposis Coli (APC) gene. Usually, individuals with this condition have a parent with the same condition, but about one-third of the individuals with FAP do not have an affected parent (they carry a spontaneous mutation). These individuals, who are the first person in the family with the condition, have a new mutation of the APC gene. These individuals can pass FAP to their children. Children who are not affected with the condition, meaning they did not receive the abnormal APC gene, cannot pass the condition on to their own children.




Dominant Inheritance




Spontaneous Mutation Followed by Dominant Inheritance

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## Look for These Clues

***Family history is an important risk factor for hereditary colorectal cancer.***

When reviewing your family history, it is important to consider both your father's and your mother's side of the family since an altered gene can be inherited from either parent. Gather information on all types of cancer because other cancers can occur as part of Familial Adenomatous Polyposis syndrome. Certain "red flags" may suggest a higher risk for Familial Adenomatous Polyposis. These include:

- Having family members with multiple colon polyps
- The presence of several family members with colorectal cancer
- The occurrence of small intestine cancers, desmoid tumors (benign abdominal tumors), or osteomas (bony growths) in family members
- A relative with a positive genetic test for FAP

## What Can You Do?

***Talk with your health care provider about options for prevention, screening, genetic counseling and genetic testing.***

If you have a family history of colorectal cancer, experts may recommend more frequent screening examinations beginning at an earlier age than recommended for the general population. These tests may include

- Colonoscopy
- Sigmoidoscopy
- Upper endoscopy
- Barium enemas and x-rays
- Abdominal ultrasounds
- Fecal occult blood tests

Options for preventing colon cancer can include certain medications or surgery. Talk with your health care provider to determine if these are right for you.

Genetic testing and genetic counseling for FAP is currently available. Genetic counselors interpret information about genetic diseases or disorders, analyze inheritance patterns and risks of occurrence, identify high-risk family members, and review available options for prevention, screening, genetic testing, and treatment. For more information about hereditary colorectal cancer or for a referral, please call the **Mid-Atlantic Cancer Genetics Network** toll free at 1-877-880-6188 or visit our Web site at http://www.MACGN.org

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