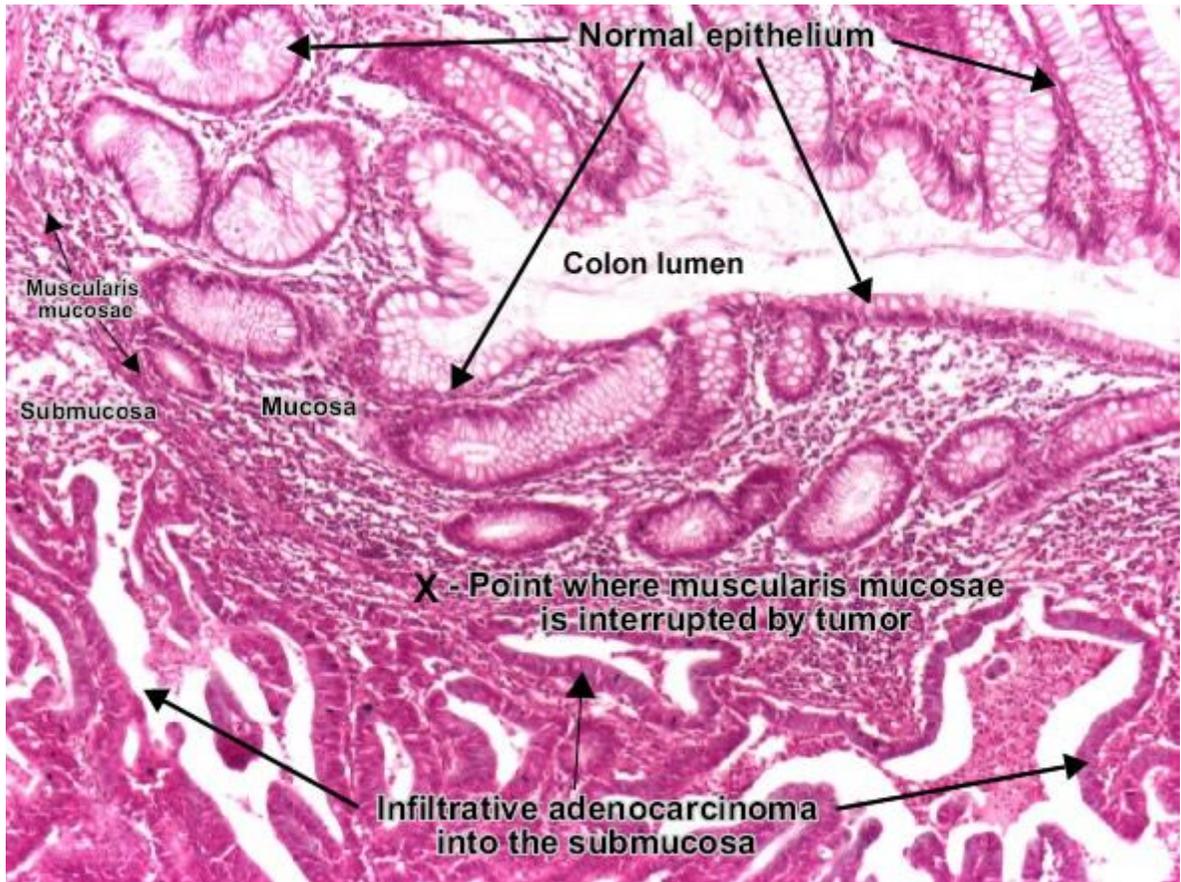


## **Colon Cancer and Polyps**

Colon cancer is a disease of the gastrointestinal system. Increased awareness of signs, symptoms and knowledge of family history can promote early detection. Also, physical exams and imaging test can give way to treatment in prevention of colon cancer starting and or progressing to colon cancer.

The colon is a large glandular structure that leads to the rectum. This structure is referred to as the large intestines, which contains cells within its inner layer or tunica mucosa. These cells can develop into a single or many overgrowths called colonic polyps or adenomas. Adenomas are benign epithelial tumors which, are derived from glandular epithelium. However, over time these slow growing adenomatus polyps can become cancerous. It could take up to five years or longer before one notice any signs or symptoms of colon abnormalities. The size and histology of a polyp determines the risk of progressive malignancy.



The polyp can be pedunculated meaning, having a gross structure called a stalk or without a stalk called sessile. Sessile is shorter and is attached to the base of the submucosa.

There are three histological groups of polyps called, adenomas, hyperplastic polyps and polyposis syndrome.

Adenomas are characterized into three different types, the tubular, villous and the tubulovillous. The most common of these adenomas

occurring anywhere in the colon is the tubular polyp. They have a tube like structure. These are the least dangerous because, they have a low risk of becoming cancerous. Whereas, the villous adenoma occur mainly in the rectum. These large finger like projections are more life threatening. Villous adenomas are sessile. The tuberovillous polyp is also tubular but, has a partial peduncle and a partial sessile. This polyp is found in the cecum of the colon, next to the ileocecal valve.

Hyperplastic polyps are smaller than adenomas and is usually 0.5 cm in diameter or less. They occur mainly during adulthood and are found in the rectosigmoid region. Enders and El-Deiry (2009) stated that “hyperplastic polyps comprise about 90% of all polyps and are benign protrusions.”

Polyposis syndromes are believed to occur because of genetic conditions. This syndrome is also referred to as the familial adenomatous polyposis (FAP), Gardner syndrome, Juvenile syndrome, Lynch syndrome and Peutz-Jeghers syndrome. Enders and El-Deiry (2009) reported that “progress has been made in understanding some of the genetic factors contributing to the development of these syndromes.

Some of the syndromes have extraintestinal features that help differentiate one syndrome from the other. FAP is best understood in terms of the genetic basis and subsequent pathological and genetic events leading to carcinoma.”

Statistics reports that for the United States colonic polyps in middle aged or elderly individuals make up about 30% of the population and autopsy studies. Enders and El-Diery (2009) reported that “In comparison, the incidence of FAP in the United States is 1 case for every 6580-8300 persons. A study by Stryker et al suggests that the risk of cancer development from sporadic 1-cm colonic polyps is 8% at 10 years and 24% at 20 years.” People age 40 and over also, are associated with a higher risk of colonic polyps. This does not exclude ages under 40. As I reported earlier in this report people with polyposis syndrome (Juvenile syndrome) also, make up a portion of these statistics.

Females have a lower incidence than males in developing colonic polyps. Race is not considered to be a major risk factor but, studies indicate that black Americans show earlier onset of higher incidence of colorectal cancer and should be screened and tested at age 45 as

opposed to the age 50 as suggested by the American Cancer Society.

If treatment is needed staging of the disease is required. Utilizing CT, MRI and PET imaging will better help to visualize the region of interest. The stages of colon cancer are reported by Enders and El-Diery (2009) are

“Stage 0: Very early cancer on the innermost layer of the intestine

Stage I: Cancer is in the inner layers of the colon

Stage II: Cancer has spread through the muscle wall of the colon

Stage III: Cancer has spread to the lymph nodes

Stage IV: Cancer has spread to other organs

Blood test to detect tumor markers, including carcinoembryonic antigen (CEA) and CA 19-9, may help your physician follow you after treatment.” Treatment such as chemotherapy, surgery by removal of part of the colon or radiation may be utilized to rid the colon of the cancerous tissue.

Recognize early signs and symptom such as, abdominal pain, tenderness in the lower abdomen, bloody stools, diarrhea, constipation, weight loss and know your family’s medical history.

Imaging test such as colonoscopy and sigmoidoscopy can better visualize colonic polyps and colorectal cancers.

## **References**

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April 13, 2010

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