

# Colorectal Cancer Awareness: Wiping Out This Disease

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# Colorectal Cancer: Statistics

- ~135,000 estimated new cases 2016
- ~50,000 estimated deaths in 2016 (2<sup>nd</sup> leading cause of cancer deaths)
- South Carolina--2,300 cases/year

# Colorectal Cancer: Statistics

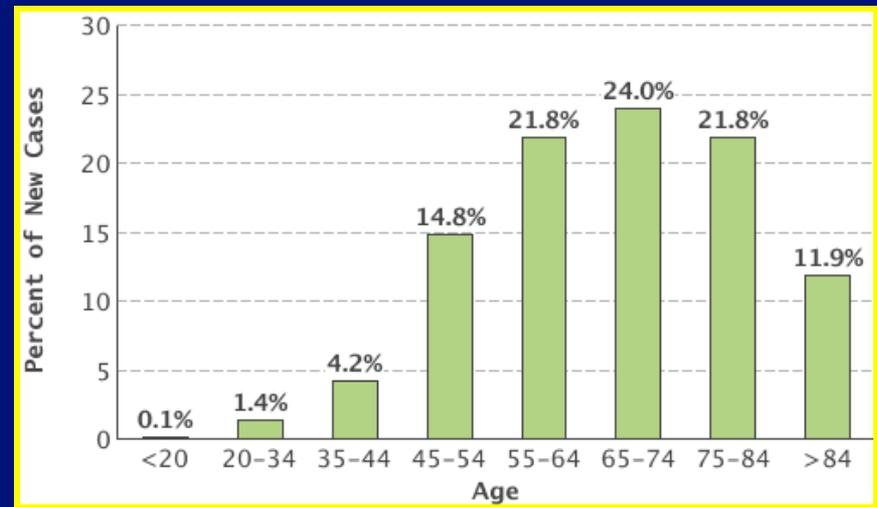
- Percent surviving 5 years= 65%
- Earlier the cancer is caught, better chance of surviving
  - Localized (90 %) versus Distant (13.5%)

# Myth #1

**“Colorectal cancer is a cancer that only affects old white men”**

# Statistics

- Most frequently diagnosed in people aged 65-74
- Median age at diagnosis= 68
- Lifetime risk
  - Men: 1 in 21 (4.7 %)
  - Women: 1 in 23 (4.4%)



SEER 18 2009-2013, All Races, Both Sexes

# Statistics

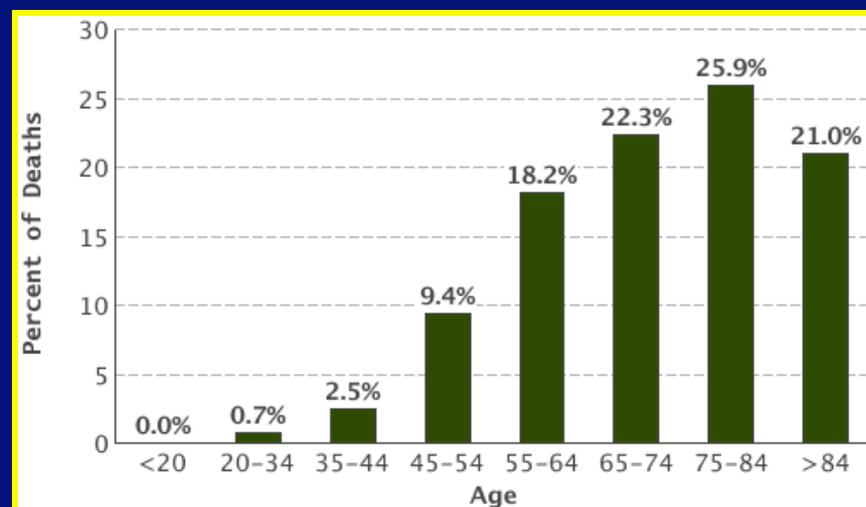
- African Americans
  - Highest risk of developing disease
  - Highest risk of dying from the disease
  - Higher stage at diagnosis

# The Good News

- Incidence dropped 30 % in U.S.
- 30 % decrease in mortality rates
- 60 % deaths could be avoided with screening

# Who Dies From This Cancer?

- Death rates increase with age
- Death highest in people aged 75-84



# Colorectal Cancer Under 50

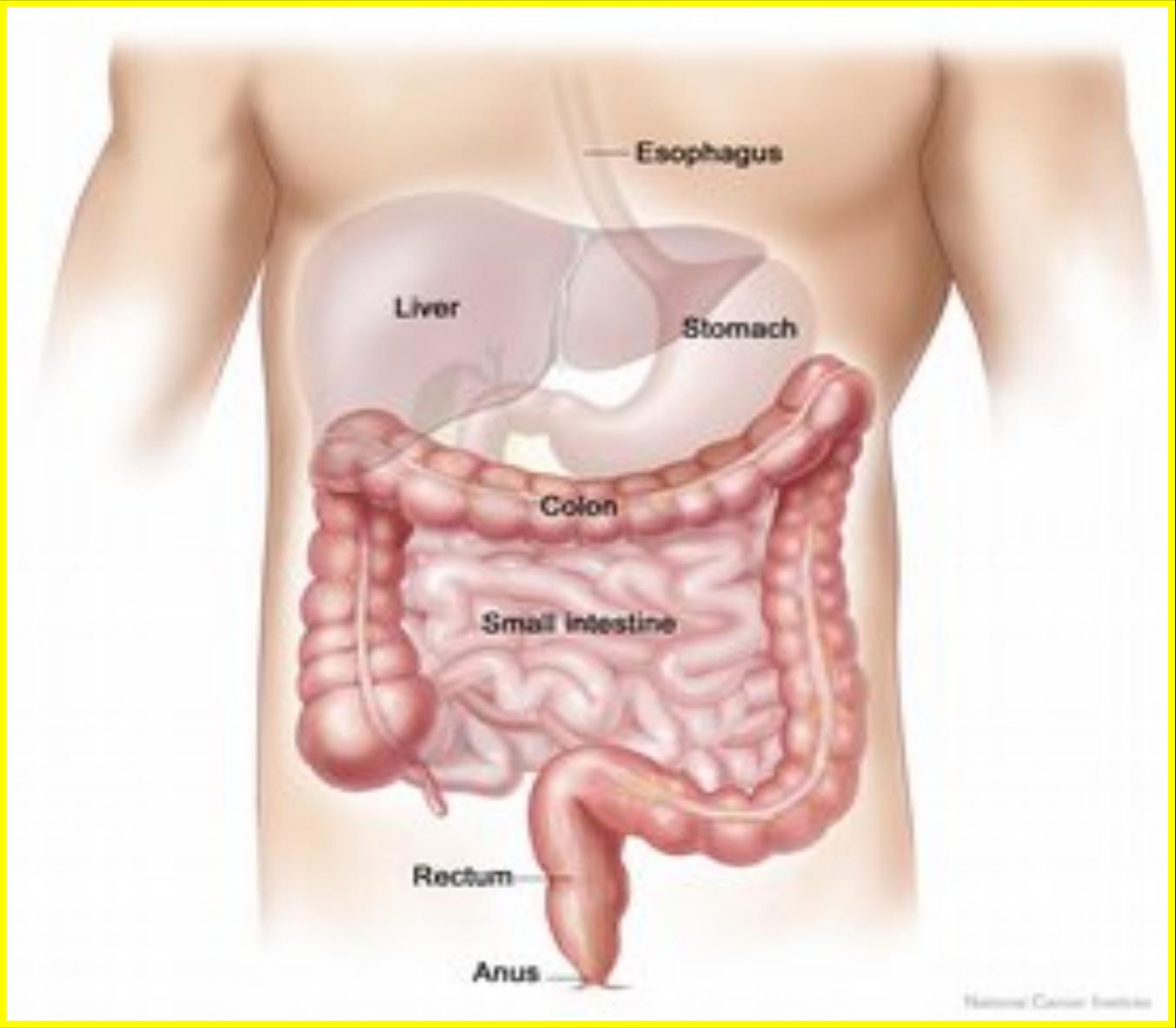
- Rates of colorectal cancer in people <50 have risen
- Median age of younger patients is 44
  - 3 out of 4 diagnosed in 40's
- Most have symptoms and have more advanced disease

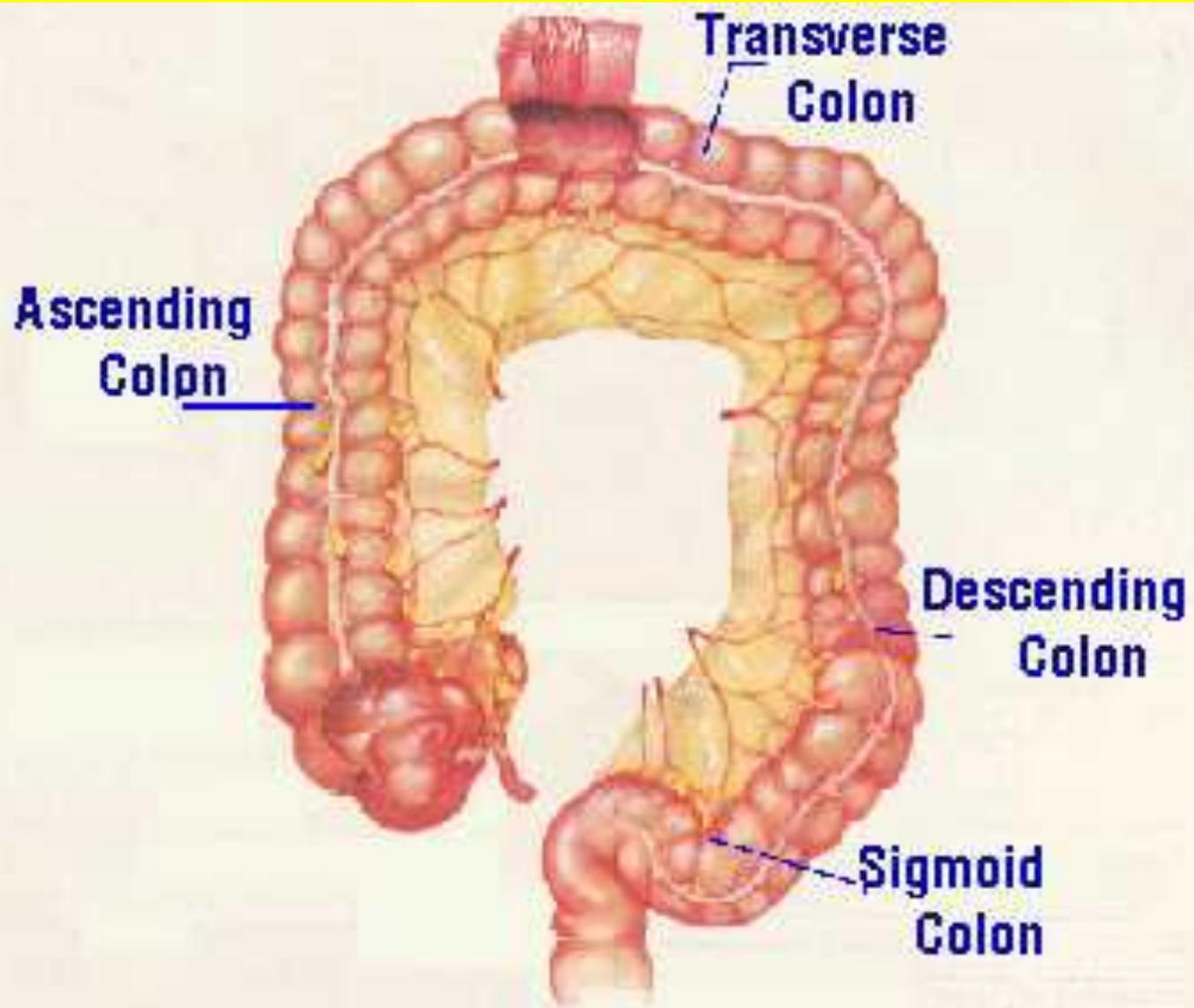
# Colorectal Cancer

- Colon Cancer
- Rectal Cancer

# Colon and Rectum

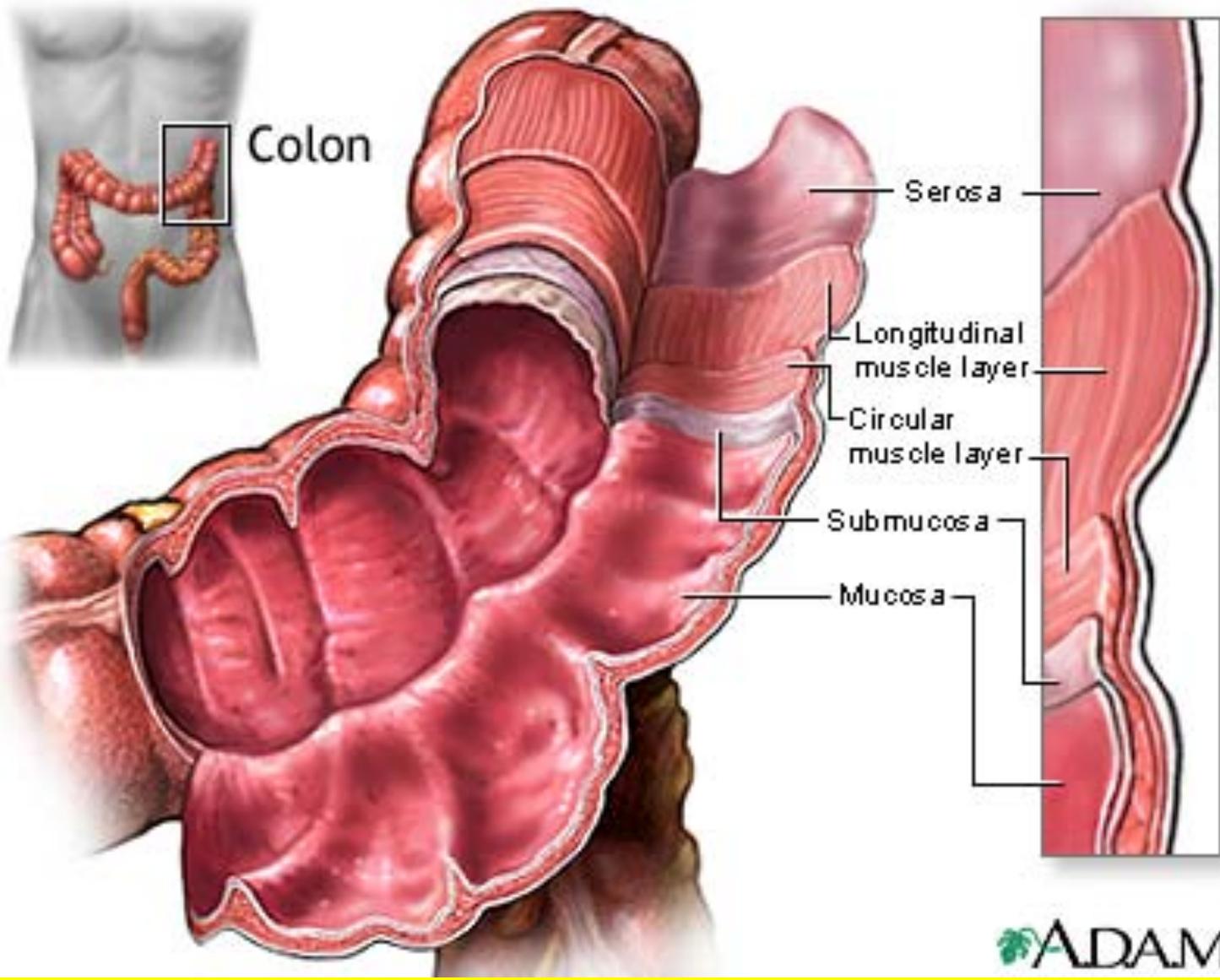
- A.K.A “Large Bowel”
- Hollow tube, 6 feet long
- Connects small bowel to anus
- 4 layers in wall of colon/rectum





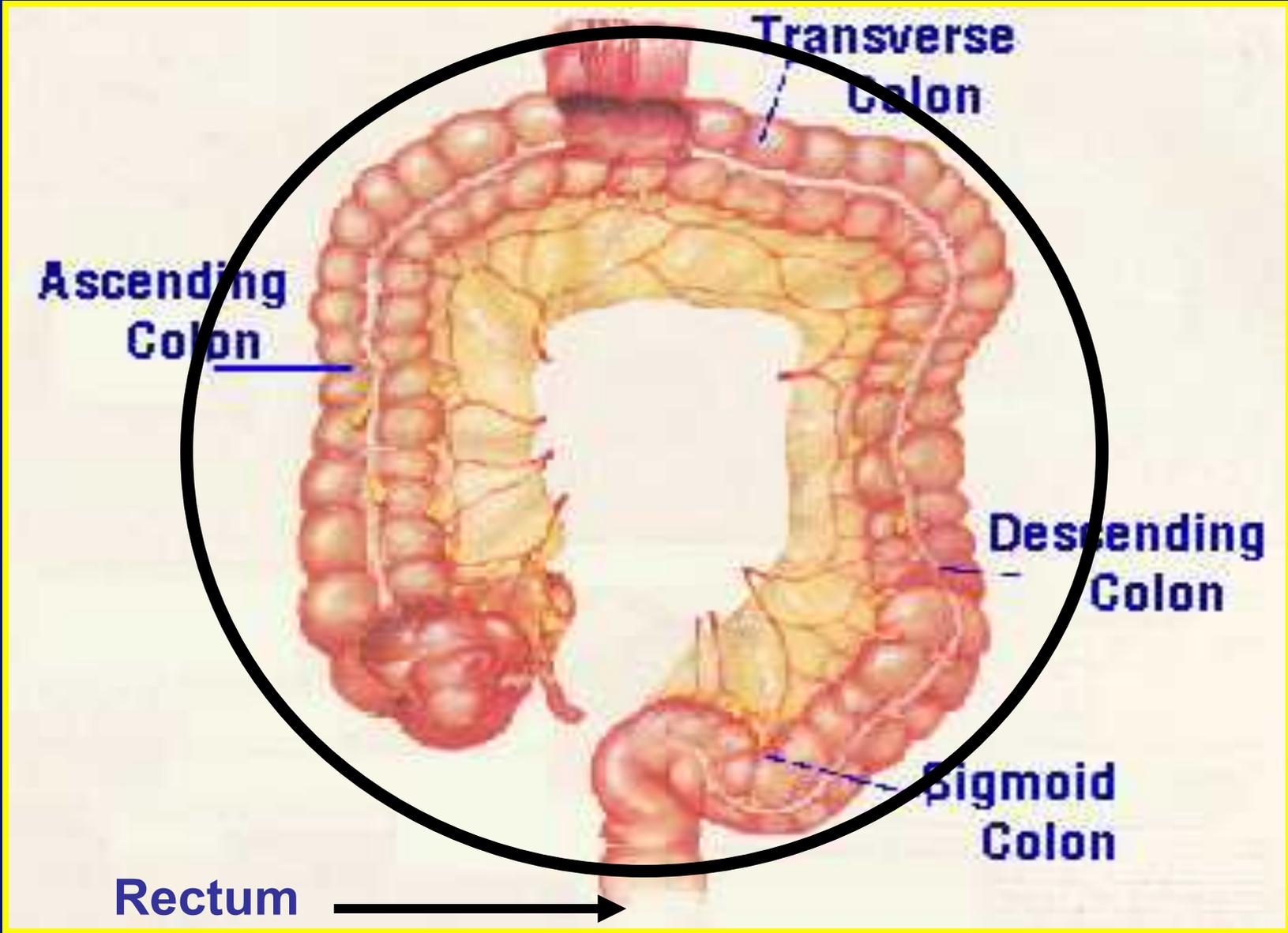


Colon



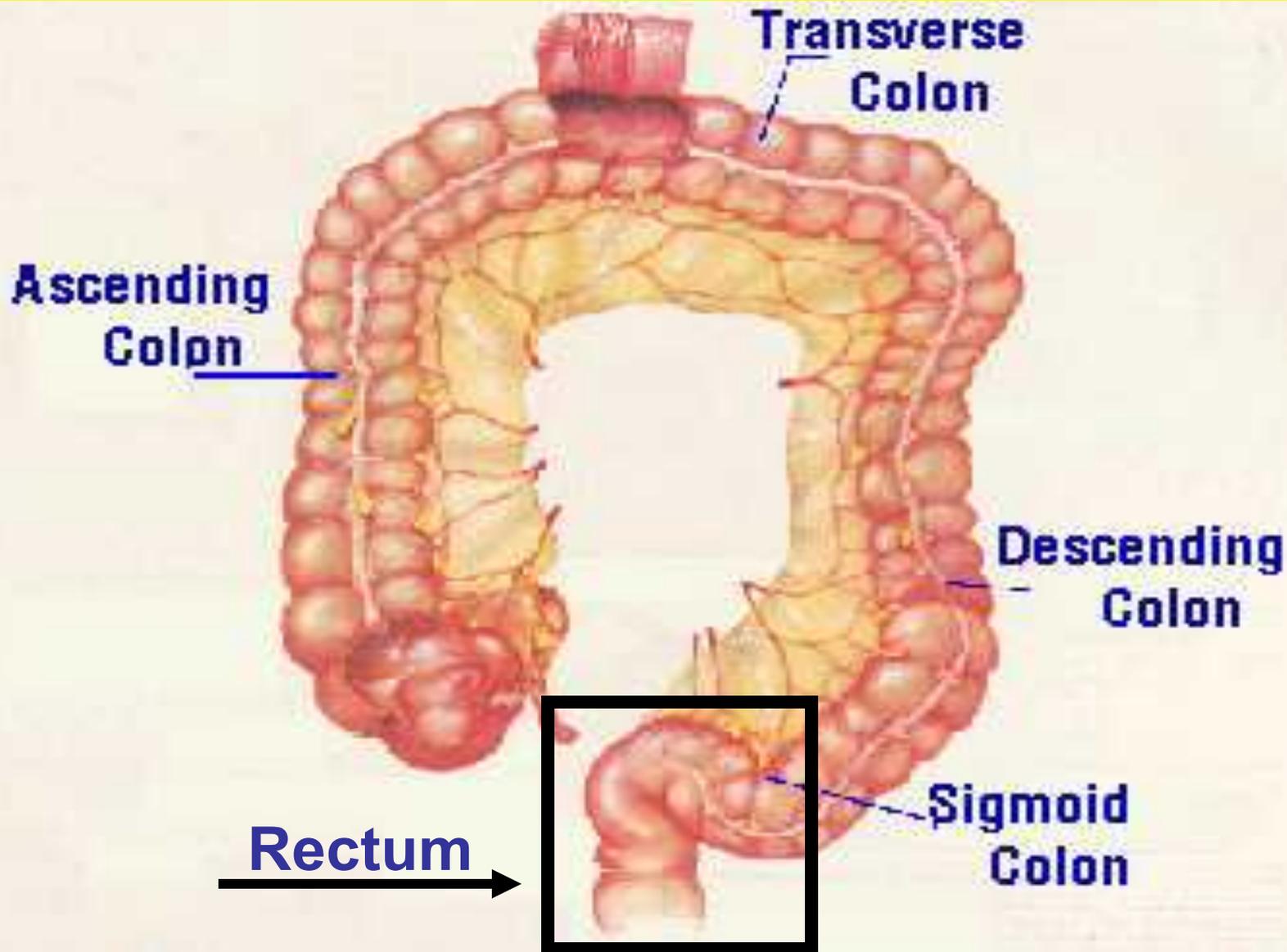
# Colon Cancer

Beginning of colon to beginning of rectum



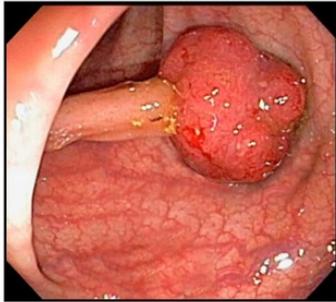
# Rectal Cancer

Bottom 5-6 inches of large bowel

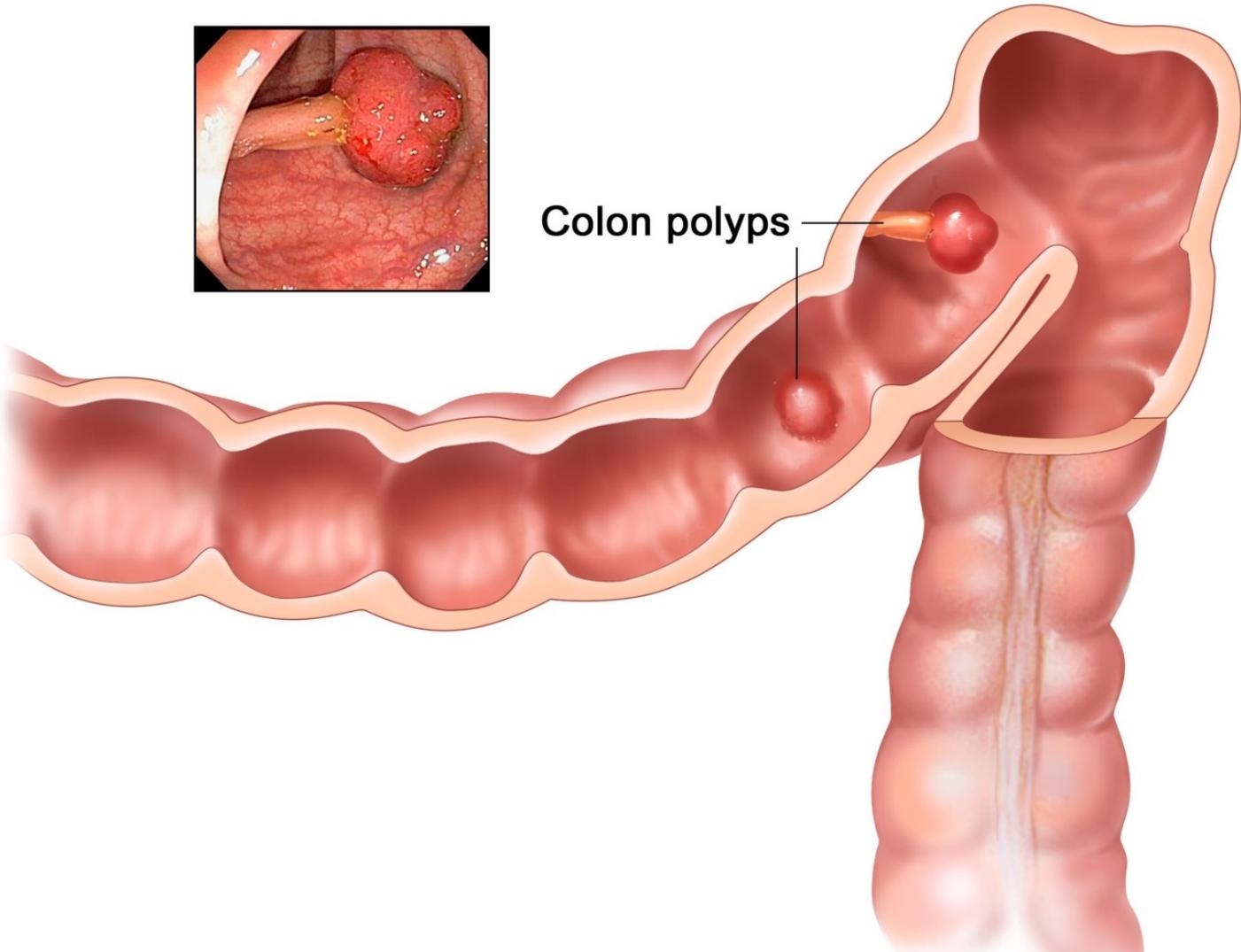


# Colorectal Cancer

- Starts in inner lining of bowel wall (mucosa)
- Abnormal growth creates polyp
- Adenomatous polyps (pre-cancerous)
- Cancer grows through bowel wall



Colon polyps



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## Myth #2

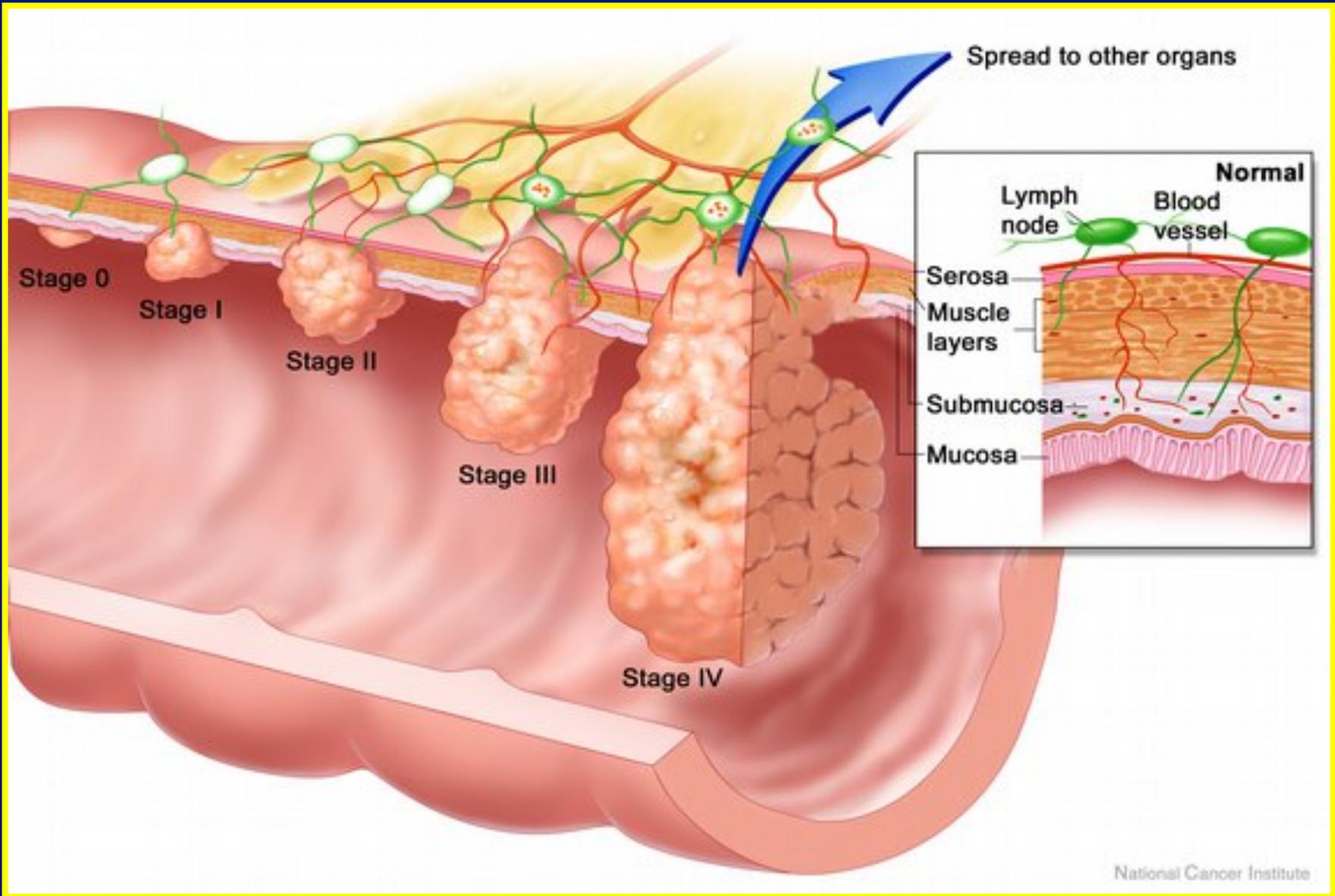
**“Exposure to air causes colorectal cancer to spread”**

# Patterns of Spread

- Through bowel wall
- To inside of abdomen
- To lymph nodes
- Through bloodstream

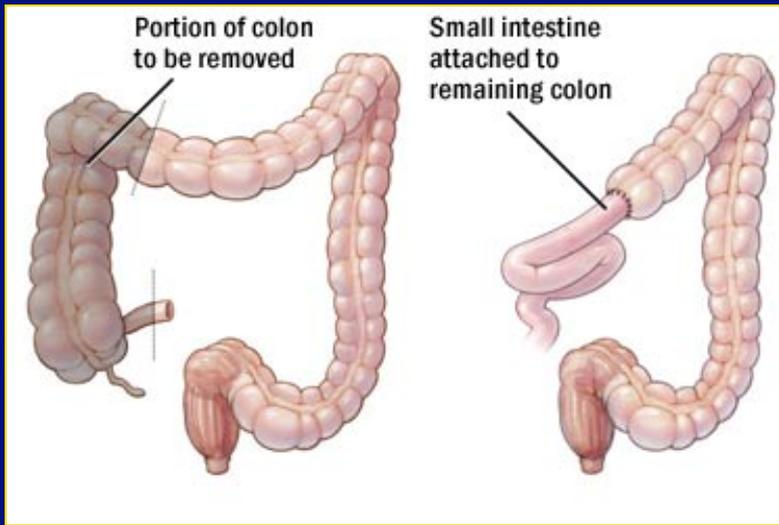
# Staging

- **T-Stage**
  - Penetration through bowel wall
- **N-Stage**
  - How many lymph nodes involved
- **M-Stage**
  - Whether spread to other parts of body or not

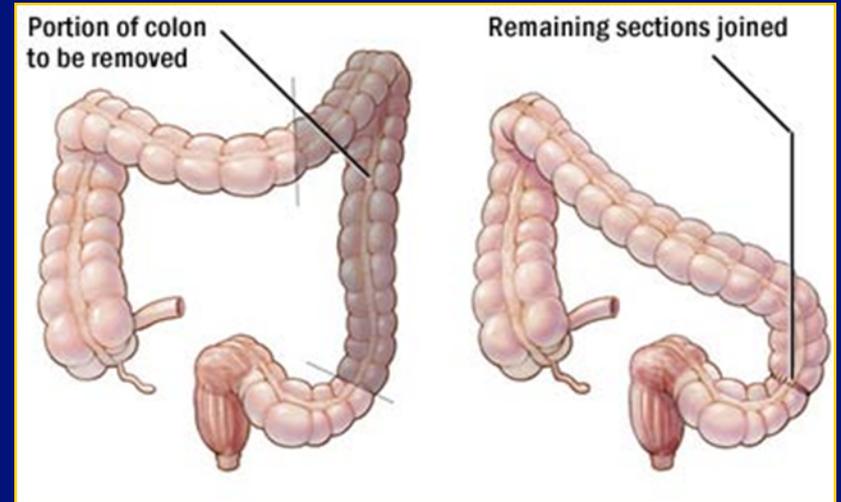


## Myth #3

**“If I have surgery for colorectal cancer, I will need a colostomy bag”**



**Right Colectomy**



**Left Colectomy**



**Sigmoid Colectomy**

# Colon Cancer Treatment

- **Stage 0, I, or II**
  - Surgery alone (polyp removal)
- **Stage III**
  - Surgery
  - Chemotherapy
- **Stage IV**
  - Chemotherapy
  - Surgery

# Rectal Cancer Treatment

- Stage 0 or I
  - Surgery alone (polyp removal)
- Stage II or III
  - Surgery
  - Chemotherapy
  - Radiation
- Stage IV
  - Chemotherapy
  - Surgery

# Laparoscopy

- Same oncologic principles are performed
- No significant differences
  - Complications
  - Mortality rates
  - Re-admission or reoperation rates
  - 5-year disease-free survival rate
- Comparable oncologic outcomes to those achieved with open approach

# Robotics



## Myth #4

**“Colorectal cancer will show signs of symptoms, so I don’t need to be screened”**

# How Do We Find Colorectal Cancer?

- Symptoms
- Screening

# Symptoms

- Blood in/on stool
- Change in bowel habits
- Narrow stools
- Abdominal discomfort
- Bloating, fullness or cramps
- Vomiting
- Constipation
- Diarrhea
- Feeling of incomplete evacuation
- Weight loss for no apparent reason
- Rectal bleeding
- Constant tiredness

# Key Point

Don't wait for symptoms--

get a screening colonoscopy!

# Screening

- Many different methods
- Colonoscopy most effective
- *Some form of screening is better than none!*

# Screening

- Colon cancer can be prevented
- >90% can be cured if diagnosed early
- >40,000 lives/year can be saved with surveillance and early treatment
- 1 in 3 people are not up-to-date with colorectal cancer screening

# Methods of Screening

- Fecal occult blood testing
- Flexible sigmoidoscopy
- Barium enema
- Computed tomographic colography (virtual colonoscopy)
- Colonoscopy

# COLON CANCER SCREENING METHODS\*

BESEEN  
GETSCREENED

|                      |  FIT   |  FOBT  |  CT COLONOGRAPHY<br>(Virtual Colonoscopy)  |  FLEXIBLE SIGMOIDOSCOPY  |  COLONOSCOPY   |
|----------------------|---|---|---|---|---|
| DESCRIPTION          | Designed to detect occult blood (blood not seen with the naked eye) in the stool, which may indicate colon cancer.  | Designed to detect occult blood (blood not seen with the naked eye) in the stool, which may indicate colon cancer.  | Uses computed tomography to create both two-dimensional and three-dimensional views of the inside of the colon and rectum to detect precancerous growths (polyps).  | A test where the lower part of the colon and rectum are viewed by the doctor with a sigmoidoscope—a flexible, lighted tube about the thickness of a finger with a small video camera on the end.  | A procedure that allows your doctor to look inside the rectum and the entire colon to check for cancer or precancerous growths (polyps) with a thin, flexible tube with a camera attached to it.  |
| HOW IT WORKS         | <br>You collect a sample of your bowel movement at home and return the test kit to your doctor or a lab.   | <br>You collect a sample of your bowel movement at home and return the test kit to your doctor or a lab.   | <br>Your doctor will administer the test in the office, which takes only a few minutes in the scanner, with downtime before and after.  | <br>Your doctor will administer the test in the office, which takes approximately 20 minutes.  | <br>Your doctor will administer the test in the operating room.  |
| FREQUENCY            | <br>EVERY YEAR   | <br>EVERY YEAR   | <br>EVERY 5 YEARS   | <br>EVERY 3-5 YEARS  | <br>EVERY 10 YEARS   |
| PREPARATION          | <br>• You do not need to follow any diet preparation or changes to your medications  |  <br>• This test may require that you limit certain foods and medications in your diet  |   <br>• This test requires fasting<br>• Requires complete cleansing of the colon with a laxative |   <br>• This test requires fasting<br>• Requires complete cleansing of the colon with a laxative |   <br>• This test requires fasting<br>• Requires complete cleansing of the colon with a laxative |
| TYPE                 | NONINVASIVE   | NONINVASIVE   | NONINVASIVE   | INVASIVE  | INVASIVE  |
| OTHER CONSIDERATIONS | <ul style="list-style-type: none"> <li>At-home stool collection</li> <li>If the test result is positive, a colonoscopy is needed to find the source of the bleeding</li> <li>Because there are other conditions that can cause blood in the stool, this may not be as reliable for detection of cancer</li> </ul> | <ul style="list-style-type: none"> <li>At-home stool collection</li> <li>If the test result is positive, a colonoscopy is needed to find the source of the bleeding</li> <li>Because there are other conditions that can cause blood in the stool, this may not be as reliable for detection of cancer</li> </ul> | <ul style="list-style-type: none"> <li>Useful for people who can't have or prefer not to have colonoscopies</li> <li>No sedation required</li> <li>Not covered by Medicare</li> <li>Not recommended for high-risk patients</li> <li>For diagnosis only—follow-up colonoscopy required if suspicious areas are found</li> </ul>                        | <ul style="list-style-type: none"> <li>Examines the entire rectum, and half of the colon</li> <li>Requires some type of sedation</li> <li>Air is put into the colon</li> <li>Suspicious-looking areas can be removed and biopsied during this procedure</li> </ul>  | <ul style="list-style-type: none"> <li>Examines the entire colon</li> <li>Removes polyps</li> <li>Patients receive sedation during the procedure</li> <li>Prepping for this test requires you to use the bathroom often, stick to a clear liquid diet, and drink a special solution that helps to empty your colon</li> </ul>                             |

# Who Gets Screening Tests?

Everyone

# When Does Screening Start?

- Different times for different people
- Risk Factors?

# Screening

- Average risk
  - 50 years old\*\*
- High risk
  - Individualized schedule, speak with your doctor

# Screening for African-Americans

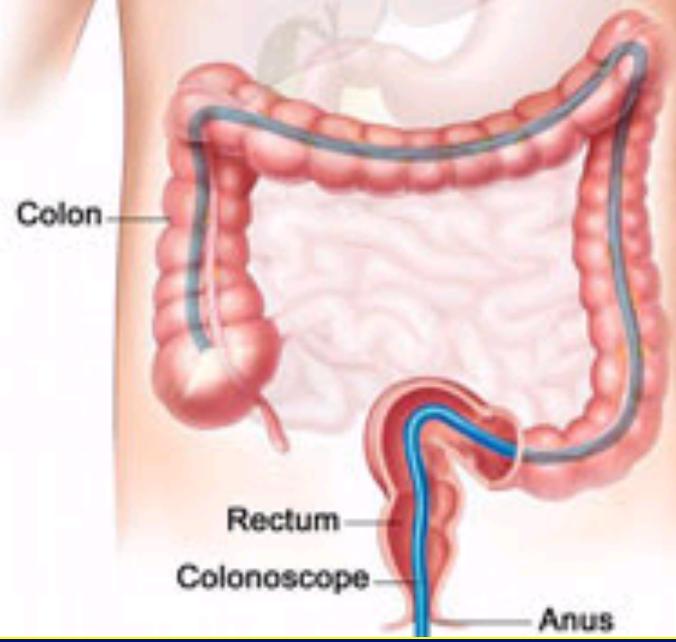
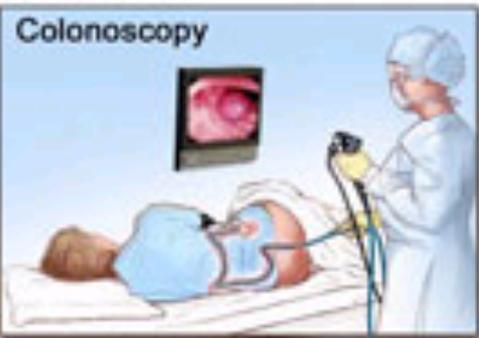
- Begin at age 45?

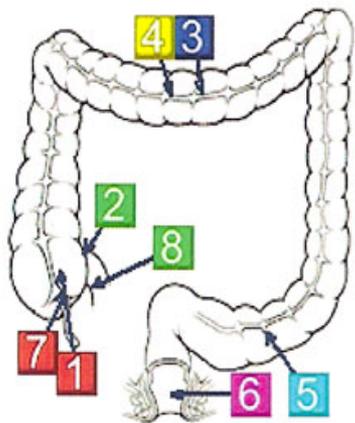
# Risk Factors

- Age
- Personal history of CRC/  
polyps
- Family history of CRC
- Inflammatory Bowel  
disease
- Diet
- Physical Inactivity
- Obesity
- Smoking
- Alcohol use
- Diabetes
- Previous radiation  
treatment
- Race/ethnic background

## Myth #5

**“Colonoscopy is unpleasant,  
uncomfortable, and difficult to  
prepare for”**





**1** Cecum: Multiple Polyps



**2** Ileocecal Valve: Exam Otherwise Normal



**3** Transverse Colon: Multiple Polyps

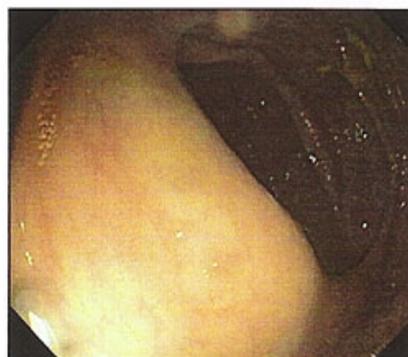
### The Colon



**4** Transverse Colon: Multiple Polyps



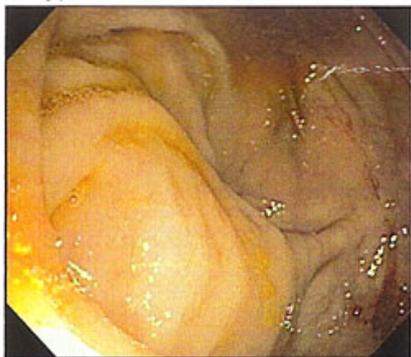
**5** Sigmoid Colon: Diverticulum



**2** Ileocecal Valve: Exam Otherwise Normal



**6** Rectum: Exam Otherwise Normal



**7** Appendix: Exam Otherwise Normal



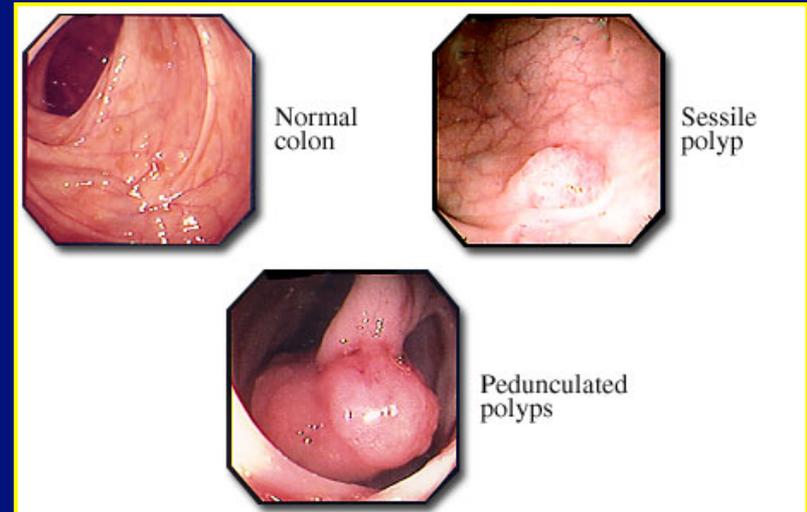
**8** Terminal Ileum: Exam Otherwise Normal

# Myth #6

“Polyps = cancer”

# Appearance of Polyps

- Penduculated-with a stalk
- Sessile-flat, without a stalk



## Myth #7

“Cleansing my colon will prevent colon cancer”

**A Sick Colon  
Creates a  
Sick Body:**

Doctors Warn  
Against  
Letting It Build  
Up. It Stops You  
From Absorbing  
Vitamins, Minerals  
and The Nutrients In  
Your Food. That's a Disaster.

**If Your Colon Isn't  
Clean, You'll Never  
Get Well.**



# Functions of Colon

- Prepare normal waste products for elimination
- Water and salt absorbed
- Left colon responsible for storage and expulsion
- Abundant bacterial flora
  - Influenced by diet
  - Equilibrium altered by antibiotics  
(i.e. *C. difficile*)

# “Normal” Bowel Habits

- “Normal” does not mean “same” for everyone
- Constipation = fewer than 3 bowel movements per week, for  $\geq 12$  weeks
- Normal can be up to 3/day or as few as 3/week
- Constipation is a symptom, not a disease

# Colon Hydrotherapy (a.k.a High-Colonic)

- Invented ~100 yrs. ago
- Colonic hygienists perform procedure
- More water than enemas
- Pump flushes water through tube into rectum



# A Better Way to Colon Health

- Diet low in fats and processed meats
- Plenty of water
- Fiber consumption
  - 20-35 g per day
  - Normalizes and regulates bowel function
  - Protective role against cancer?

# The Future

- Colon cancer stem cell research
- Gene targeted therapy
- Improving screening techniques (markers in stool, blood, or urine)
- Improvement in radiation techniques

# Final Thoughts

- Overall prognosis most dependent on stage of cancer at diagnosis
- Colon cancer can be prevented
- Implementation of education and screening programs translate into reductions in incidence and/or mortality rate

# QUESTIONS



