



Colon Cancer – The Preventable Killer

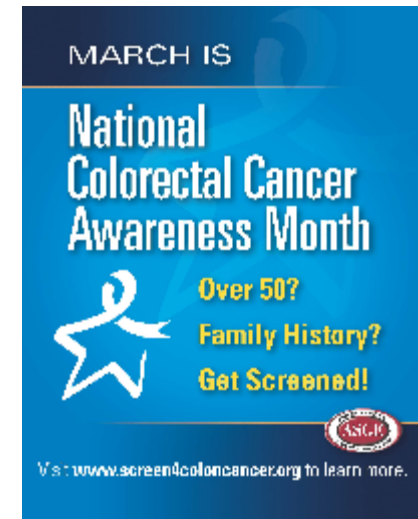
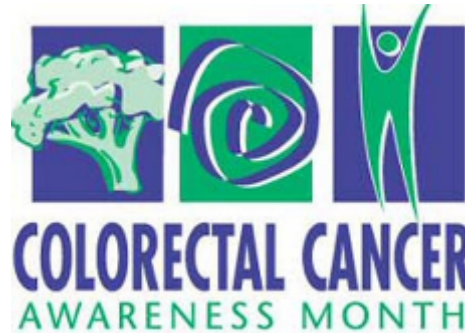
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303-351-5461





March Is Colorectal Cancer Awareness Month

Promoting Screening and Prevention in 2019

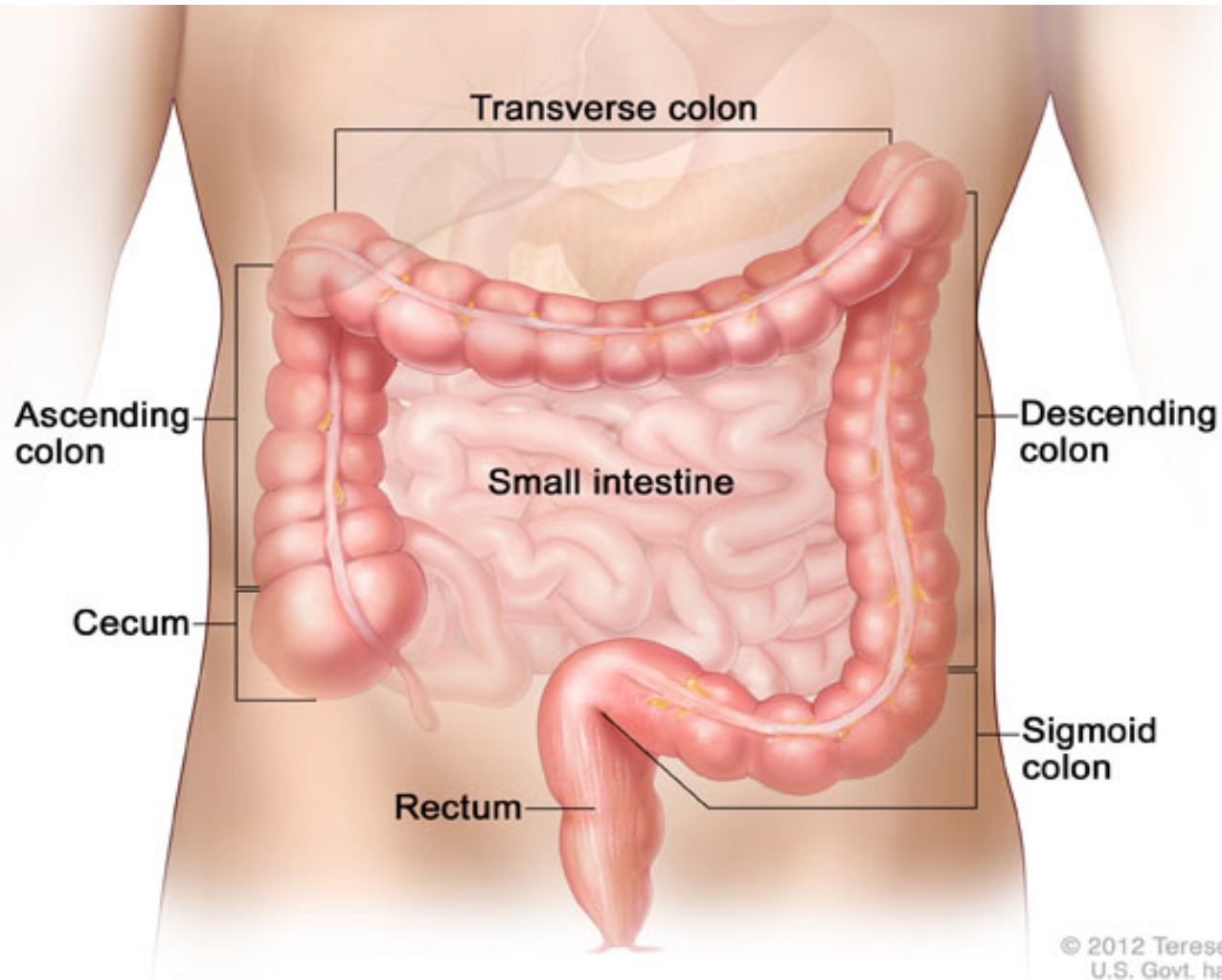


The Preventable Killer

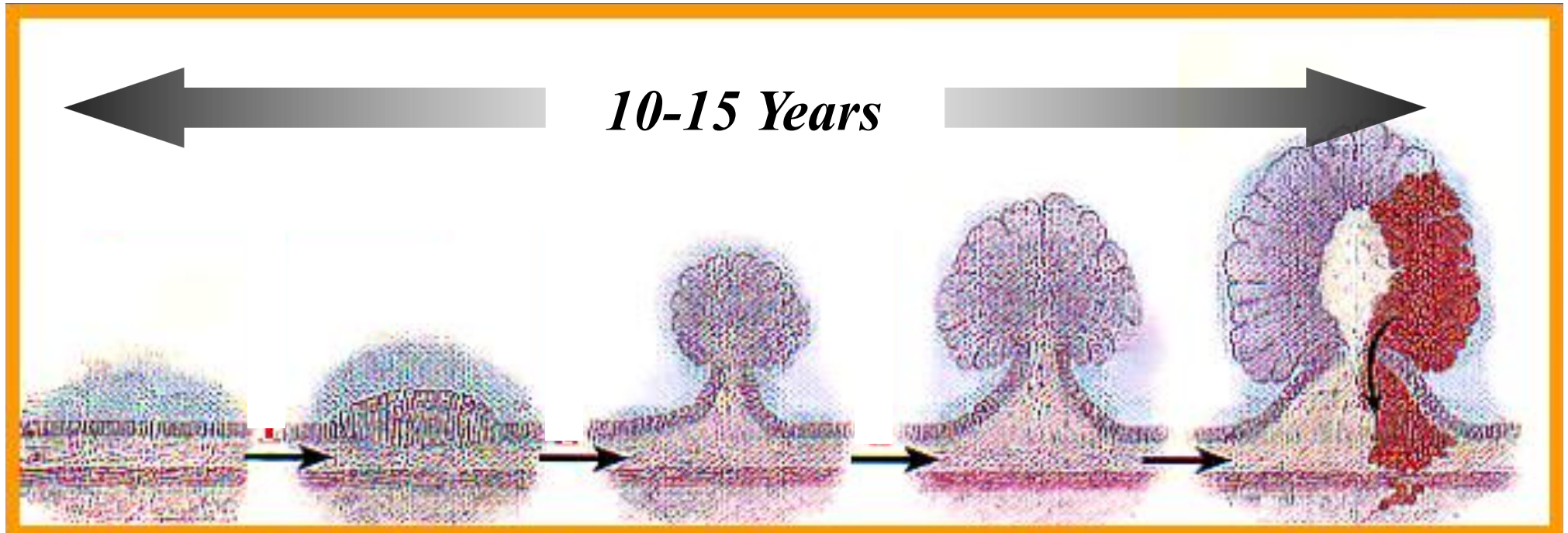
Colorectal cancer is the result of a sequence of biologic events. It is:

- Common
- Lethal
- Preventable

What is Colorectal Cancer?



The Adenoma Carcinoma Sequence



**Normal
epithelium**

**Abnormal
epithelium**

**Small
adenoma**

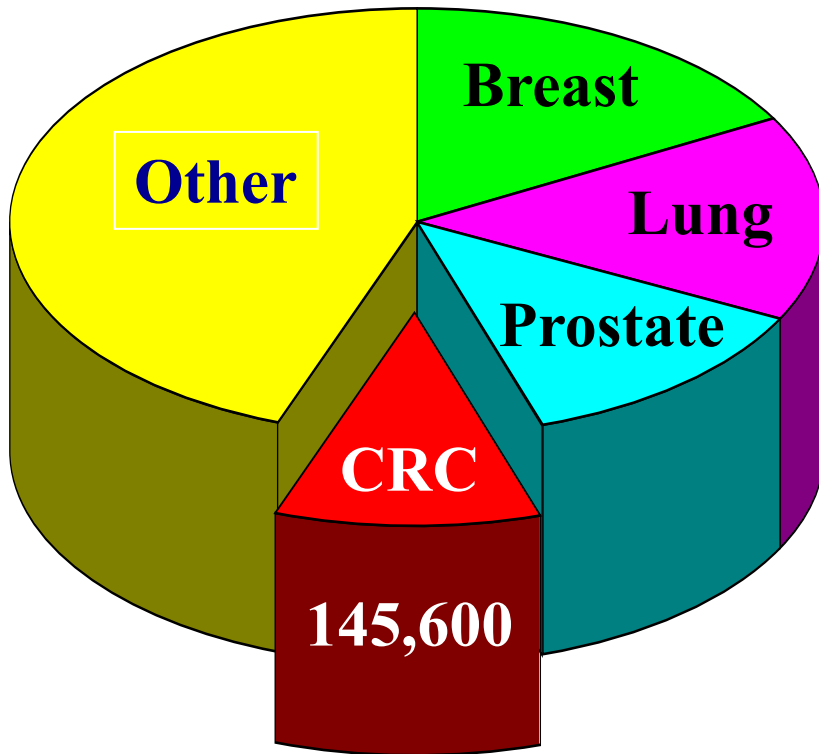
**Large
adenoma**

**Colon
carcinoma**

CRC is Common

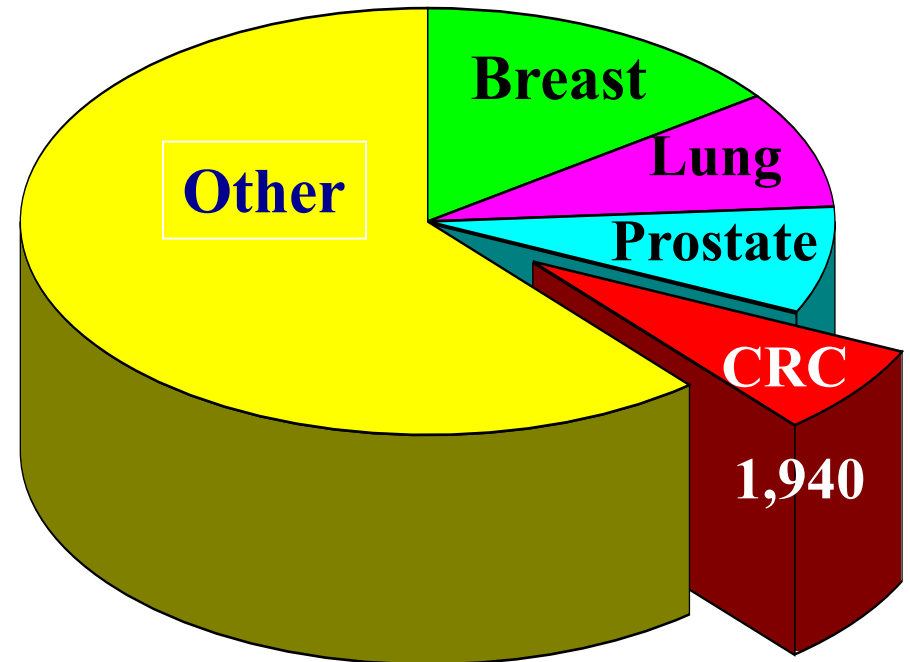
United States

New Cases- 1,762,450



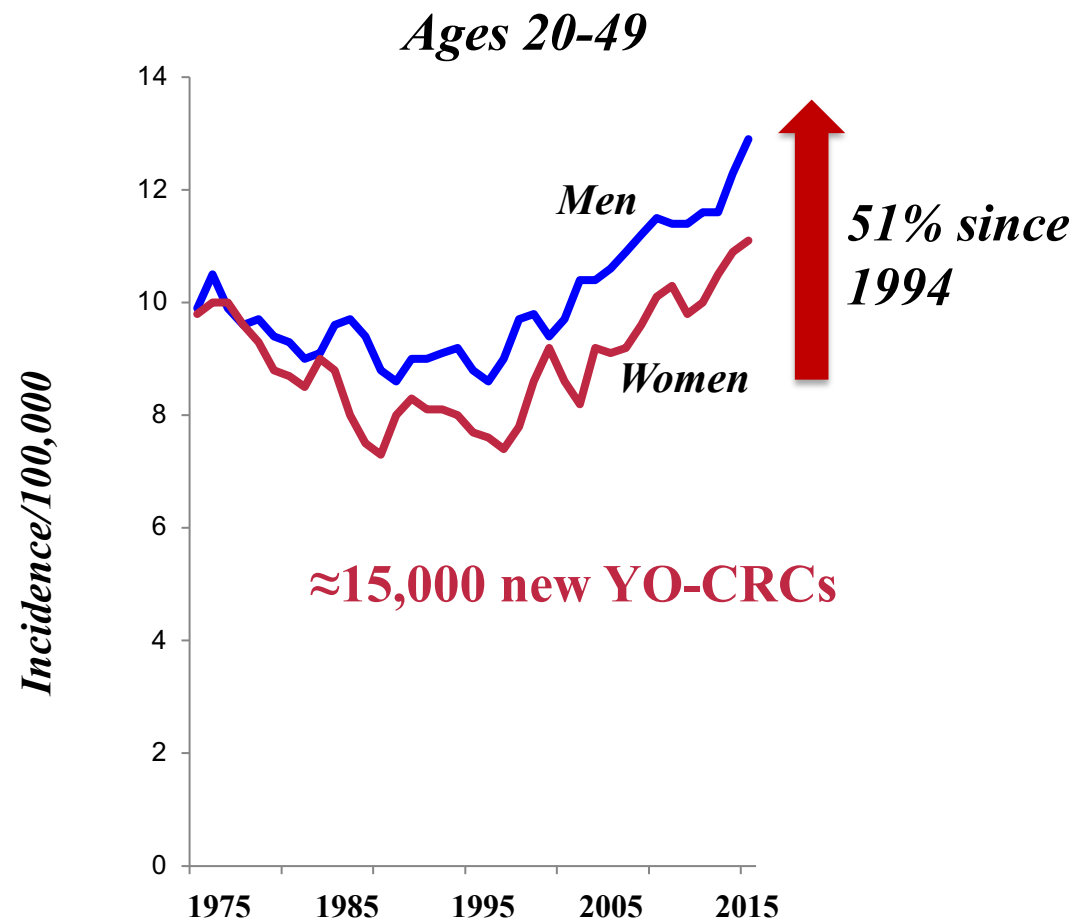
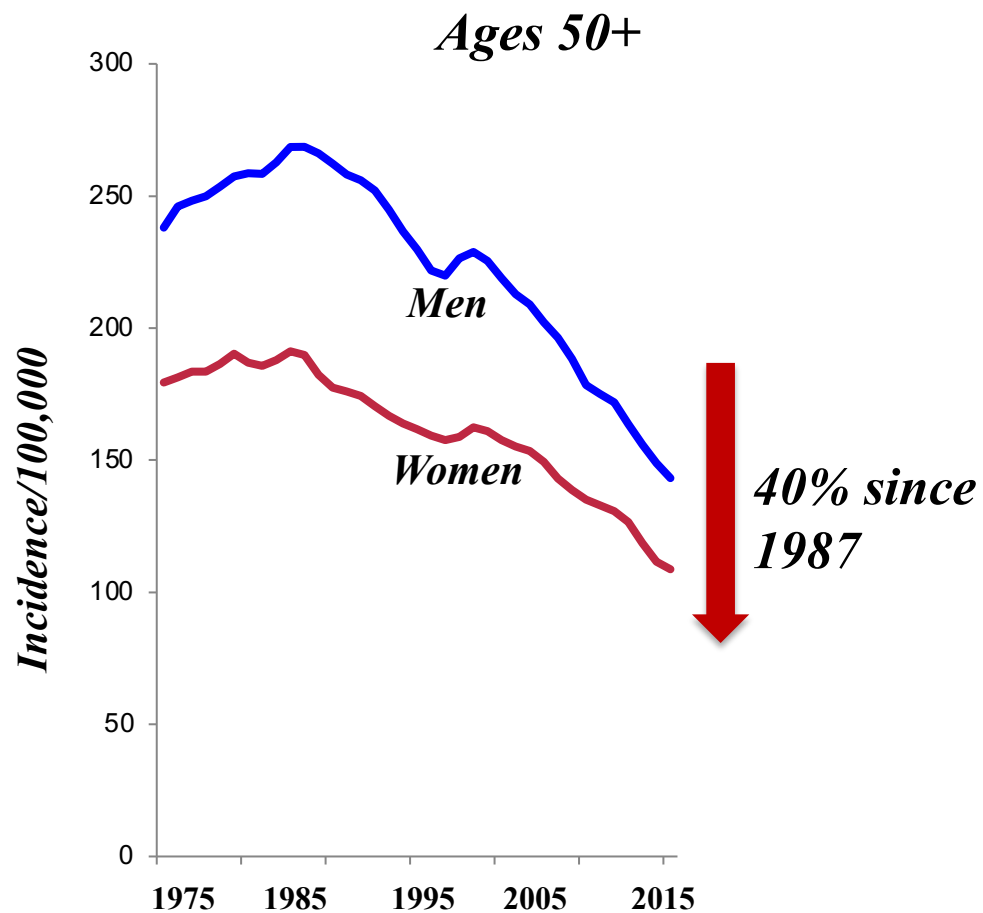
Colorado

New Cases- 28,600



CRC Incidence Over Time

The Good and Bad

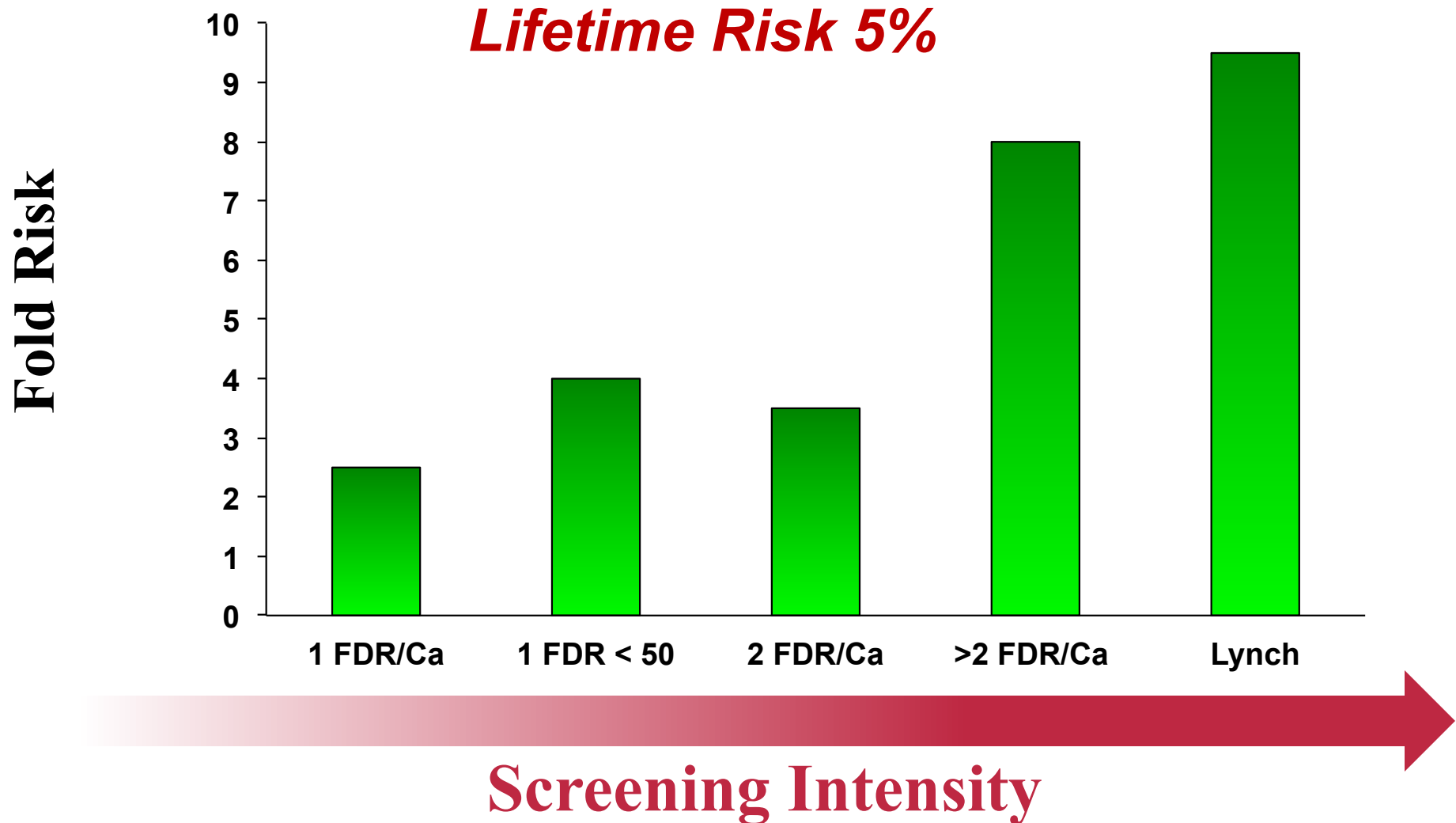


CRC Risk Factors

Demographic:

- Country of origin
- Age
- Sex
- Race/Ethnicity
- Socioeconomic status (SES)
- Family history

Family History and CRC Risk



CRC Risk Factors

Demographic:

- Country of origin
- Age
- Sex
- Race/Ethnicity
- SES
- Family history

Lifestyle:

- Obesity
- Low physical activity
- Smoking
- Alcohol

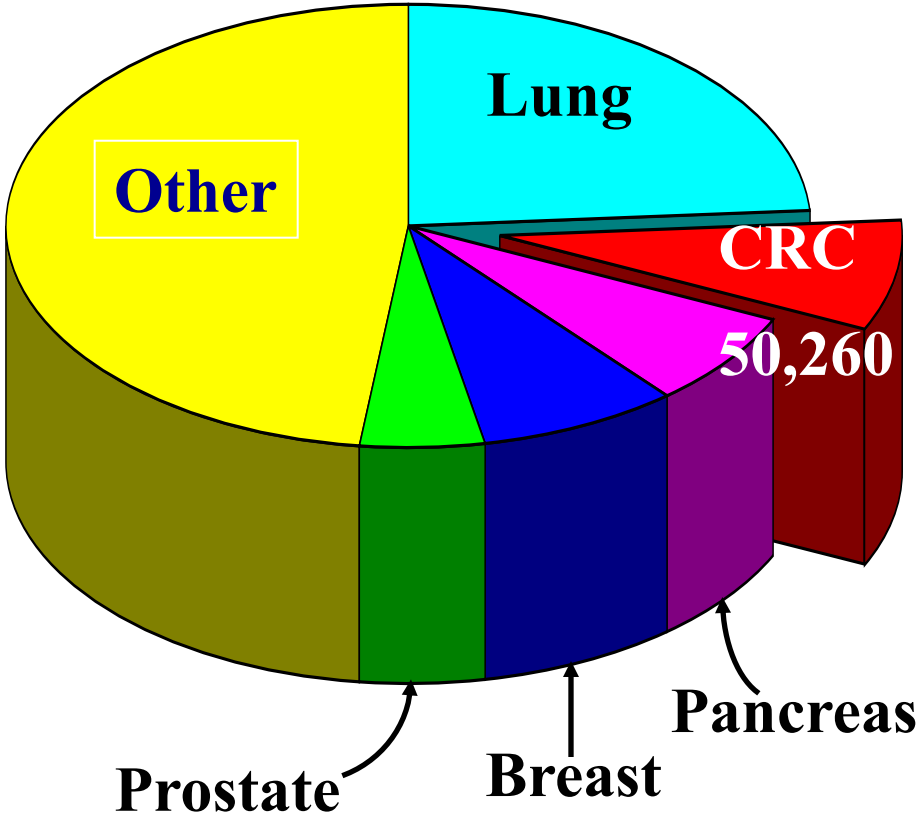
Diet:

- High red/processed meat
- Low fiber containing foods
- Low fruits and vegetables

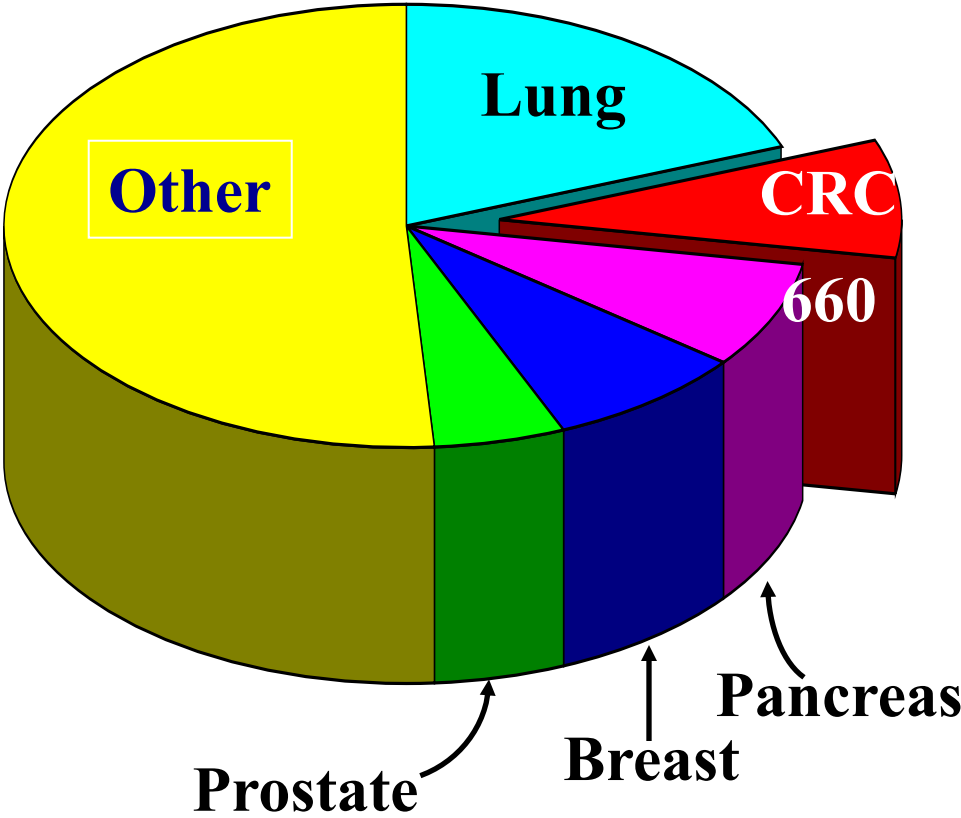
Failure to Get Screened!

CRC is Lethal

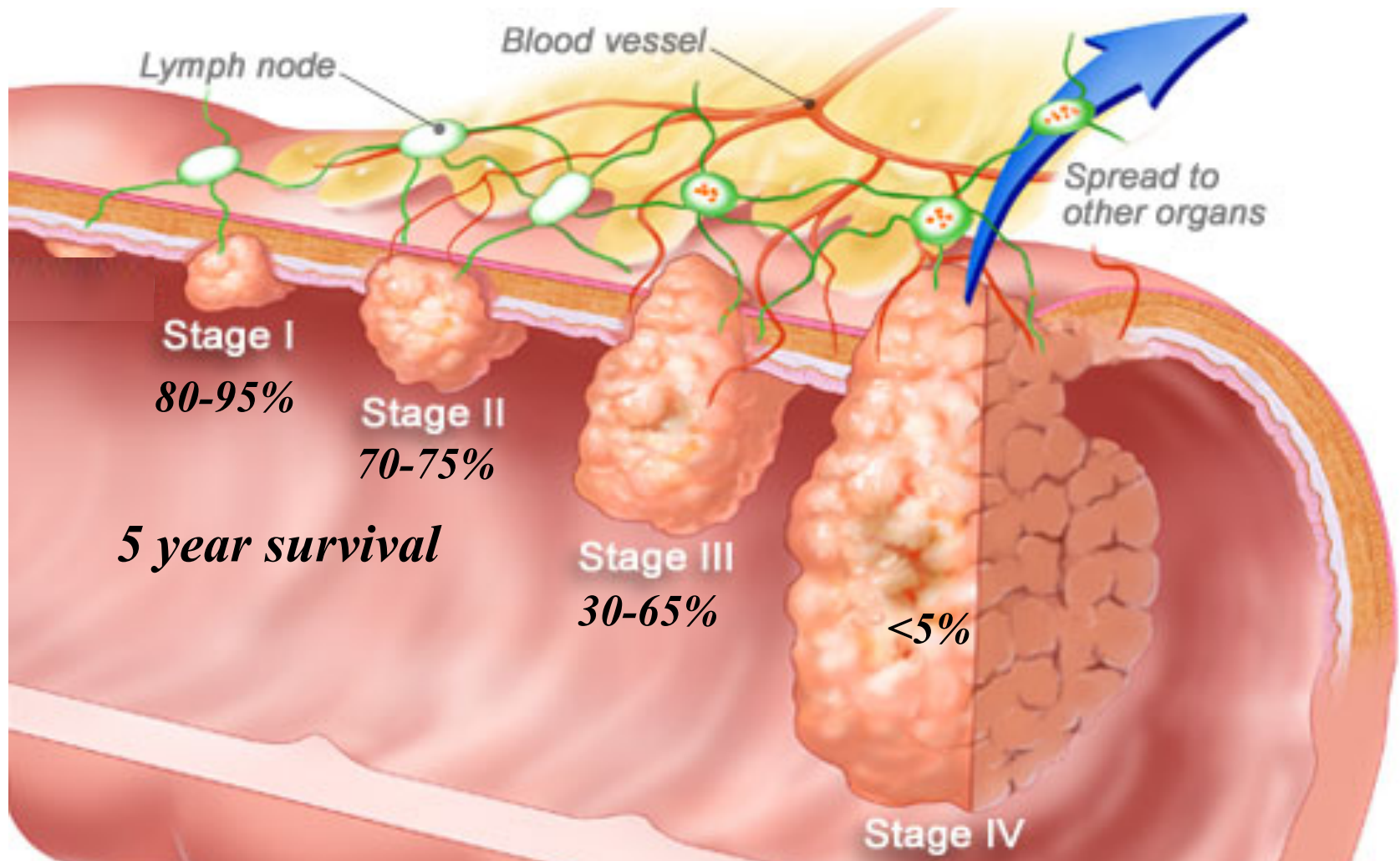
United States
Deaths- 606,880



Colorado
Deaths- 8,120



CRC Staging



Early Detection is Critical.

CRC is Preventable – Modifiable Risk Factors

Demographic:

- Country of origin
- Age
- Sex
- Race/Ethnicity
- SES
- Family history

Diet:

- High red/processed meat
- Low fiber containing foods
- Low fruit and vegetables

Lifestyle:

- Obesity
- Low physical activity
- Smoking
- Alcohol



CRC Prevention



Risk Factors

Demographic:

- Country of origin
- Age
- Sex
- Race/Ethnicity
- SES
- Family history

Lifestyle:

- Obesity
- Low physical activity
- Smoking
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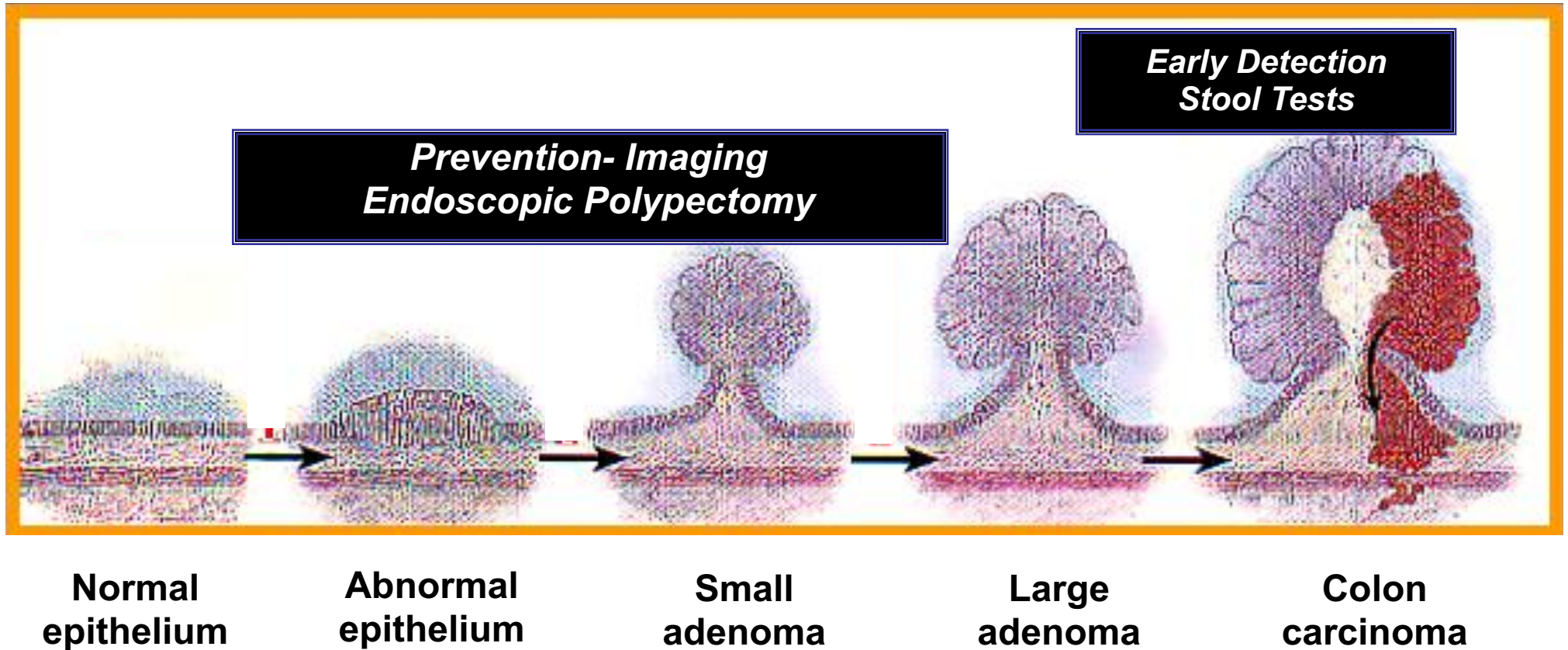
Diet:

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Protective Factors:

- *Aspirin for selected groups*
- **Screening**

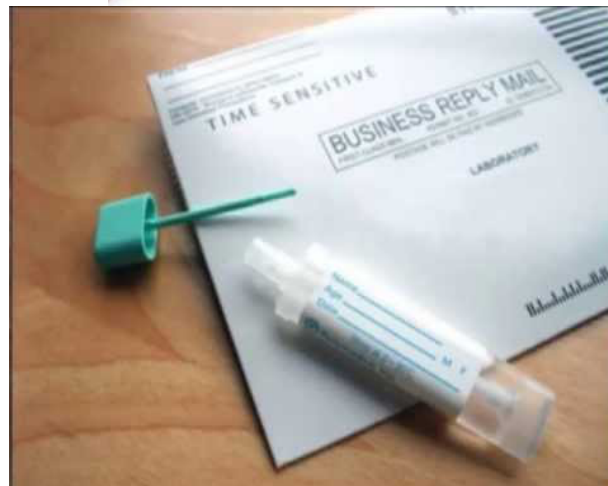
Screening- Prevention and Early Detection



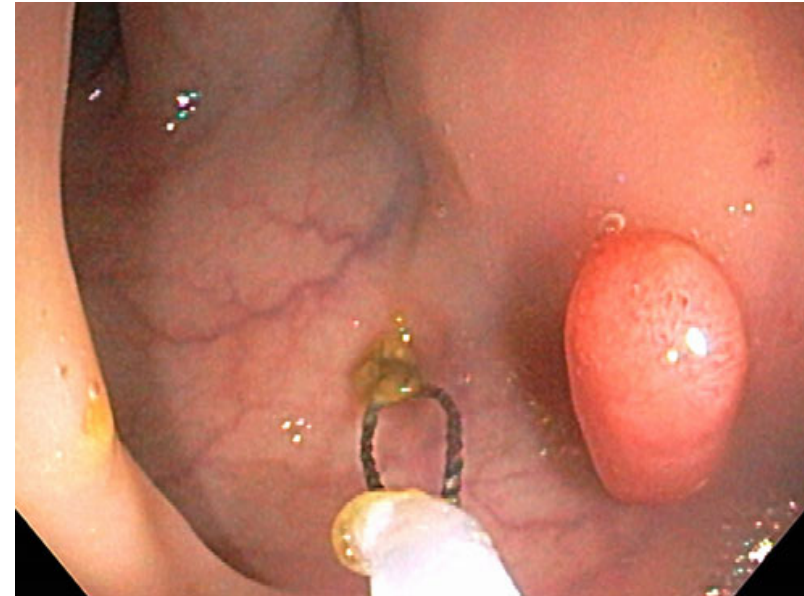
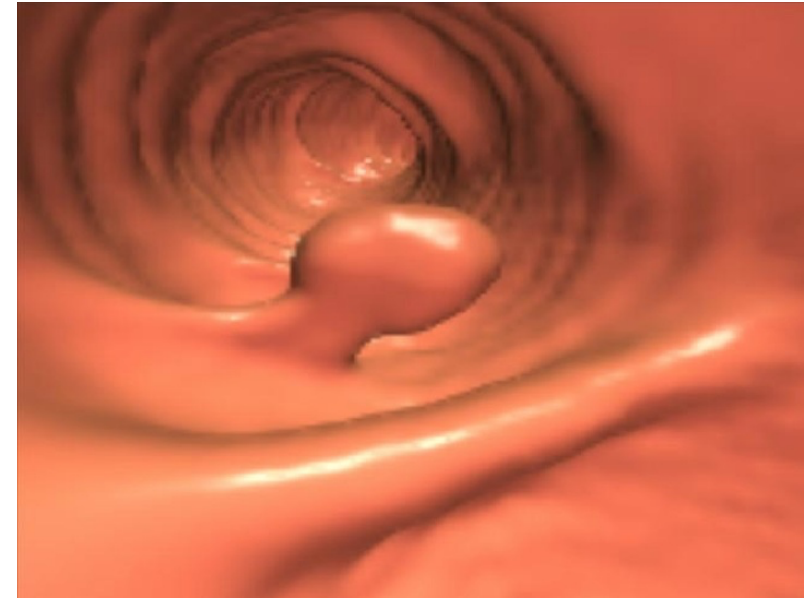
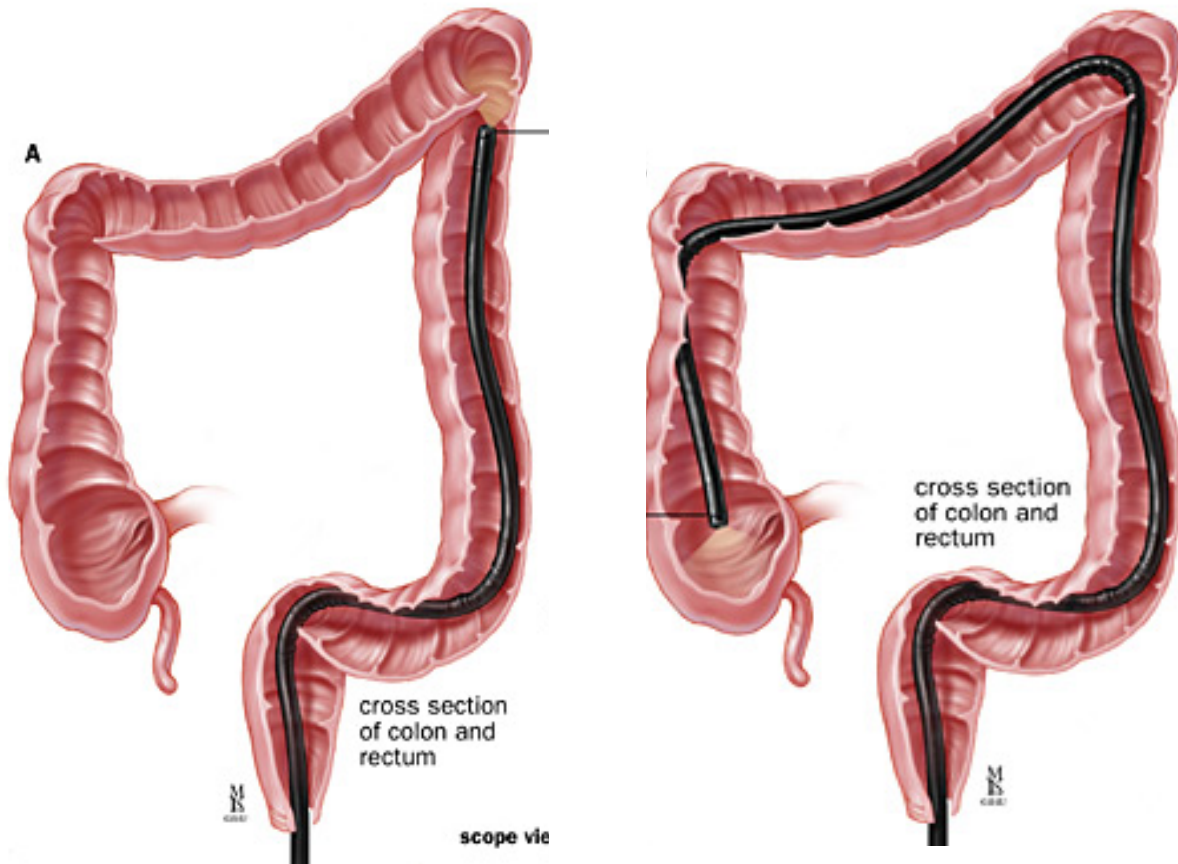
The Adenoma Carcinoma Sequence



Normal epithelium



The Adenoma Carcinoma Sequence

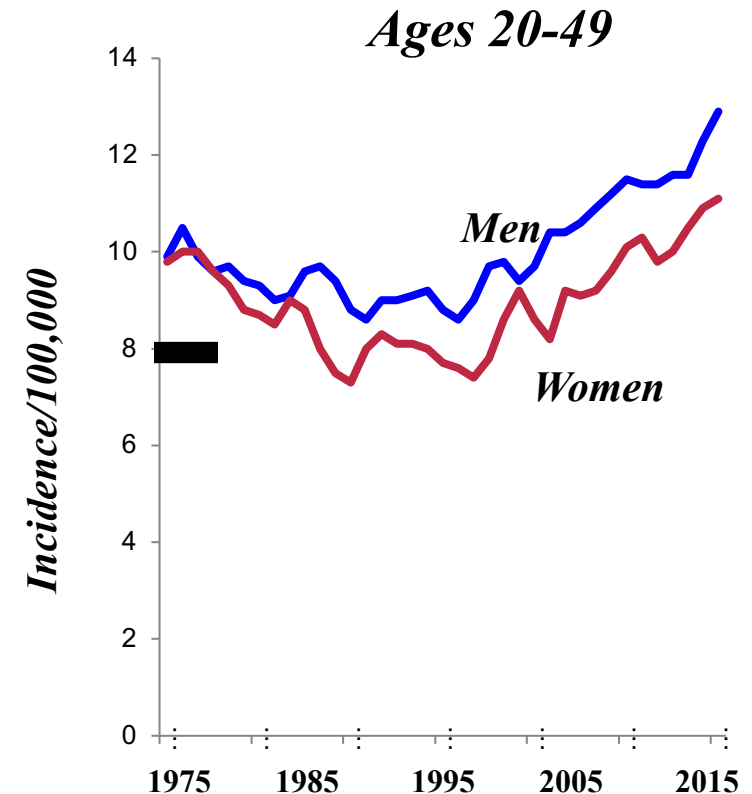


CRC Screening- Risk Groups

- **Average risk:**
 - No personal or FH of colonic neoplasia or IBD
 - Start CRC screening at age 45/50, stop at age 75-85
 - Options for screening:
 - *hsFOBT/FIT* - annually
 - FIT/DNA - every 3 years
 - Flexible Sigmoidoscopy - every 5 years
 - CT Colonography - every 5 years
 - Colonoscopy - every 10 years
 - If done, CRC cases and deaths decrease by 60-80%.

Current Screening Guidelines

- USPSTF 2016 - “recommends CRC screening starting at age 50 years and continuing until age 75.... multiple screening strategies to choose from” (a recommendation). Individualize screening age 76-85.
- ACS 2017 - Repeated modeling studies using current incidence and mortality rates for the young.
- **Conclusion:** Starting at age 45 led to a 4-8% decrease in number of new CRCs, and an 8-11% decrease in CRC deaths with a 12-17% increase in the number of colonoscopies needed, compared to starting at age 50.



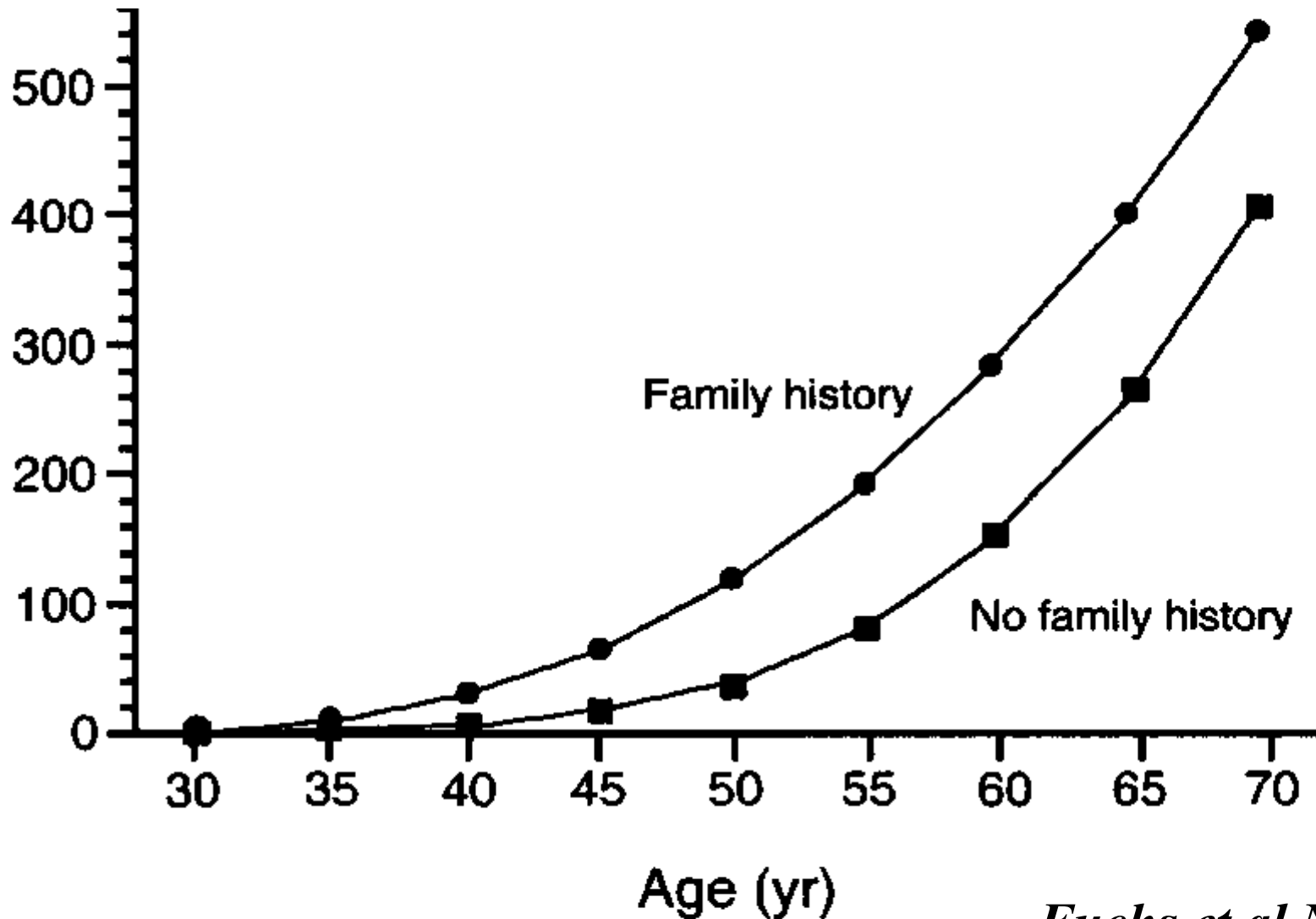
Current Screening Guidelines

- USPSTF 2016 - *“recommends CRC screening starting at age 50 years and continuing until age 75.... multiple screening strategies to choose from” (a recommendation). Individualize screening age 76-85.*
- ACS 2018 - *“recommends that adults aged 45 years and older with average risk of colorectal cancer undergo regular screening” and continuing until age 75 with any of multiple screening strategies. Individualize screening age 76-85.*
- State legislatures decide which guidelines insurers in their state must follow. Colorado is currently a USPSTF state.

CRC Screening- Risk Groups

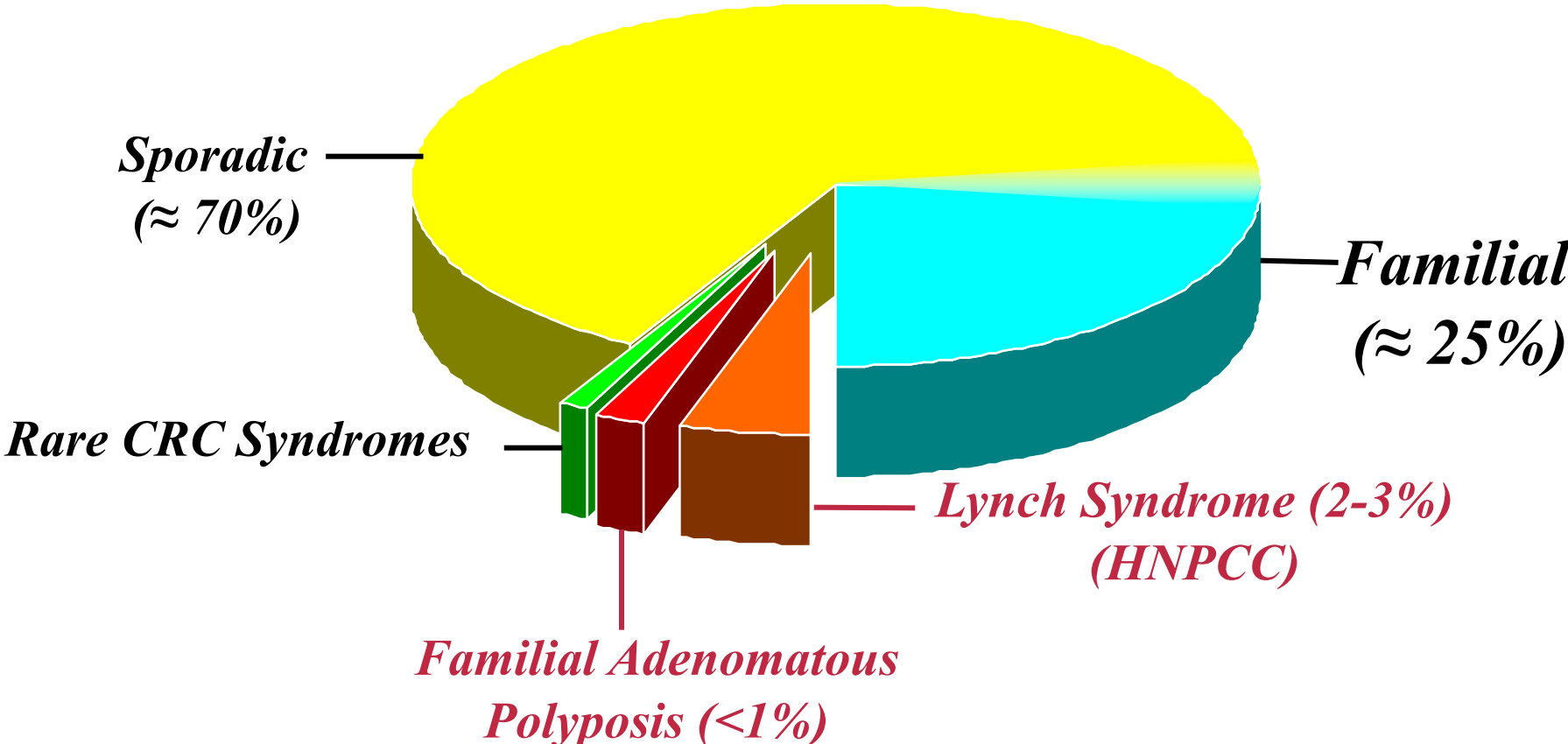
- Increased risk - FDRs of patients with CRC
 - Start at age 40 or earlier depending on # and age of CRCs in family, colonoscopy is preferred
- Hereditary Syndromes
 - Start much earlier (age 12-25), annual colonoscopy

Family History of CRC Increases Risk



Fuchs et al NEJM 1994

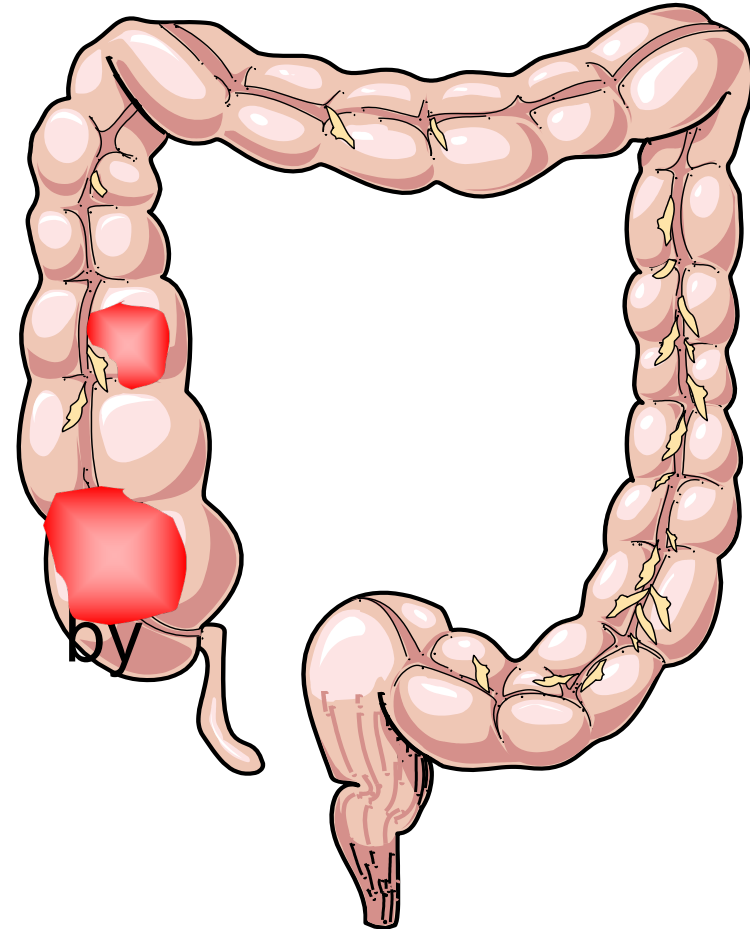
Familial and Hereditary CRC



Burt RW et al. Prevention and Early Detection of CRC, 1996

Lynch Syndrome

- Autosomal Dominant - 3% of CRCs
- High CRC risk - up to 50%
- Early onset - 44 yrs
- Proximal location - 65%
- Other cancers (Uterus, Ovary)
- Under recognized (<5%)
- Genetic testing (MMR genes) age 25
- Screening works
 - Annual colonoscopy age 25 or earlier



Familial Adenomatous Polyposis



- Rare - 1/7,000 to 1/22,000
- Autosomal Dominant
- High CRC risk \approx 100%
- Easily recognized
- Genetic testing or screening around age 12
- Surveillance annually
- Attenuated FAP is different

Colorectal Cancer - The Preventable Killer

- Sequential progression from polyp to cancer
- Common:
 - 4th most common cancer in US and CO
 - Decreasing but increasing in the young
- Lethal:
 - 2nd most common cause of cancer death in US and CO
 - Strongly dependent on stage at diagnosis
- Preventable:
 - Prudent lifestyle changes
 - Screening is most effective prevention, as well as early detection strategy
- Familial and hereditary CRC require special attention



Thank You!

Questions?





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