

COLORECTAL CANCER:

Myths about symptoms & treatments

By

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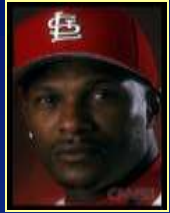


COLON CANCER:

Scope of the problem

- **Second leading cause of cancer death** in US
- American Society of Colon & Rectal Surgeons and ACS estimate in 2005:
 - 145,290 new cases nationwide (9,270 in Texas)
 - 56,290 deaths nationwide (3,590 in Texas)
- Expensive to treat
 - **Treatment costs over \$6.5 billion per year**
 - Among malignancies, 2nd only to breast cancer at \$6.6 billion/ year

Get the Test. Get the Polyp. Get the Cure.



You may know someone touched by colon cancer...

1997 - Baseball player Eric Davis' colon cancer diagnosis announced

1999 - Supreme Court Justice Ruth Bader Ginsburg announced her diagnosis

2000 - *Peanuts* creator Charles Schulz dies from colon cancer

2002 – Sharon Osborne is diagnosed with colon cancer

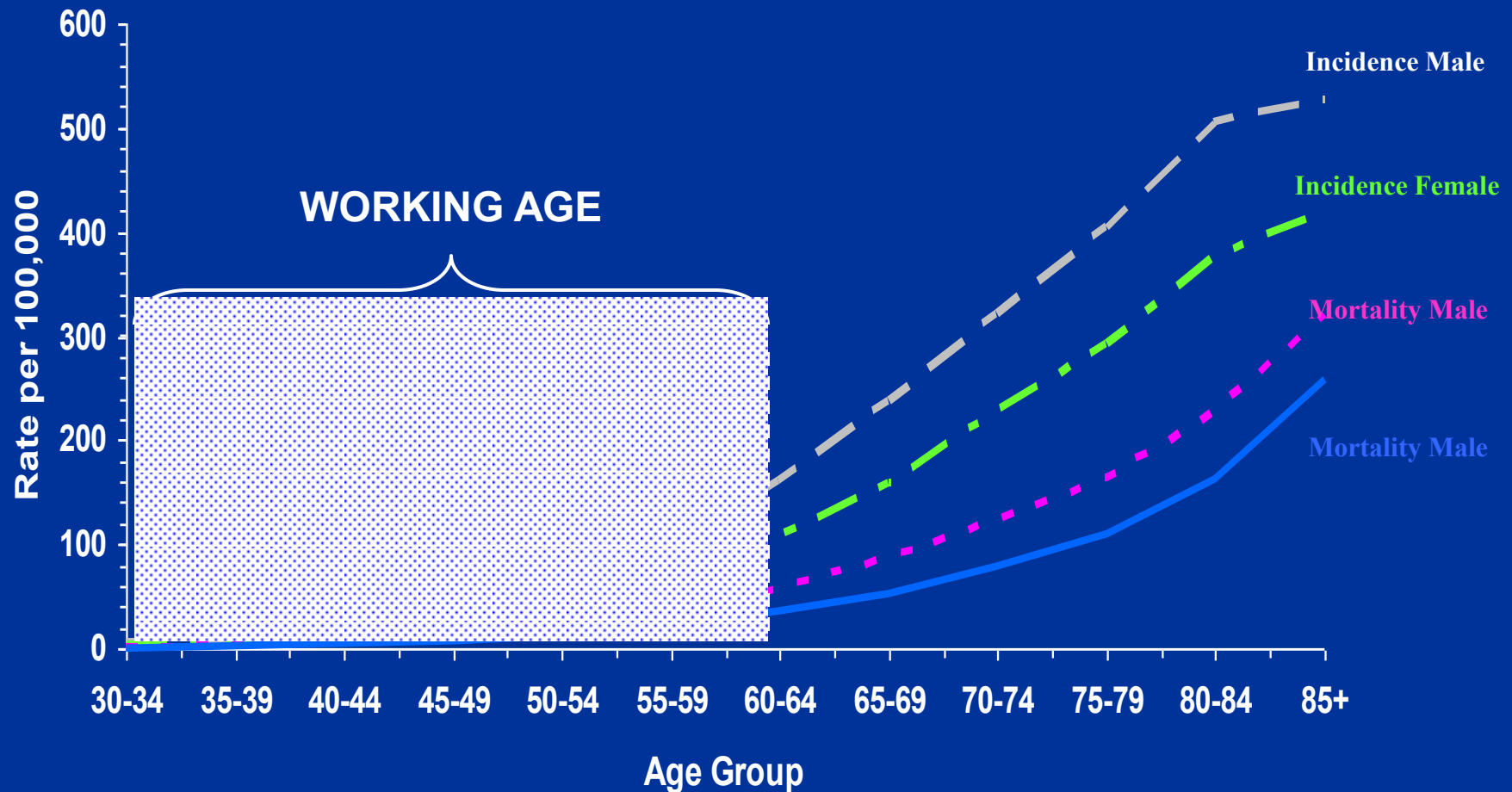
2006 – Farrah Fawcett is diagnosed with colon cancer



MYTH #1

Colon cancer is a disease of older, white men only. Other people are not affected as much.

Cancers of the Colon & Rectum (Invasive): Average Annual Age-Specific SEER Incidence & U.S. Mortality Rates By Gender, 1995-1999



Source: SEER Cancer Statistics Review, 1973-1999

Cancer Sites in Which African-American Death Rates* Exceed White Death Rates* for Men, US, 1996-2000

Site	African American	White	Ratio of African American/White
All sites	356.2	249.5	1.4
Larynx	5.7	2.4	2.4
Prostate	73.0	30.2	2.4
Stomach	14.0	6.1	2.3
Myeloma	9.2	4.5	2.0
Oral cavity and pharynx	7.9	4.0	2.0
Esophagus	12.2	7.3	1.7
Liver	9.3	6.0	1.6
Lung & bronchus	107.0	78.1	1.4
Pancreas	16.4	12.0	1.4
Small intestine	0.7	0.5	1.4
Colon & rectum	34.6	25.3	1.4

*Per 100,000, age-adjusted to the 2000 US standard population.

Source: SEER Program, 1975-2000, Division of Cancer Control & Population Sciences, NCI 2003.

Five Most Frequently Diagnosed Cancers (1995-1998) and Five Leading Cancer Deaths (1994-1998) by Sex & Race, Texas

MALES INCIDENCE			MALES MORTALITY		
NON-HISPANIC WHITE			NON-HISPANIC WHITE		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Prostate	7,604	27.3	Lung and Bronchus	4,466	35.8
Lung and Bronchus	5,478	19.7	Prostate	1,364	10.9
Colon and Rectum	3,055	11.0	Colon and Rectum	1,167	9.4
Urinary Bladder	1,691	6.1	Pancreas	552	4.4
Non-Hodgkin's Lymphomas	1,124	4.0	Leukemias	540	4.3
All Sites	27,872	100.0	All Sites	12,485	100.0
AFRICAN AMERICAN			AFRICAN AMERICAN		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Prostate	1,234	30.4	Lung and Bronchus	763	34.1
Lung and Bronchus	882	21.7	Prostate	364	16.3
Colon and Rectum	440	10.8	Colon and Rectum	221	9.9
Oral Cavity and Pharynx	140	3.4	Pancreas	102	4.6
Non-Hodgkin's Lymphomas	125	3.1	Stomach	82	3.7
All Sites	4,060	100.0	All Sites	2,238	100.0
HISPANIC			HISPANIC		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Prostate	1,150	23.6	Lung and Bronchus	499	22.8
Lung and Bronchus	627	12.9	Colon and Rectum	223	10.2
Colon and Rectum	554	11.4	Prostate	208	9.5
Non-Hodgkin's Lymphomas	241	5.0	Liver & Intrahepatic Bile Duct	176	8.0
Kidney and Renal Pelvis	227	4.7	Stomach	128	5.8
All Sites	4,863	100.0	All Sites	2,195	100.0
OTHER RACES			OTHER RACES		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Prostate	87	21.4	Lung and Bronchus	32	24.8
Lung and Bronchus	52	12.9	Liver & Intrahepatic Bile Duct	21	16.6
Colon and Rectum	43	10.6	Colon and Rectum	9	7.3
Liver and Intrahepatic Bile Duct	28	6.8	Stomach	9	6.7
Oral Cavity and Pharynx	21	5.1	Non-Hodgkins Lymphomas	6	4.7
All Sites	404	100.0	All Sites	129	100.0

Notes: Incidence counts are 4 year average annual (1995-1998) and are rounded to the nearest whole. Mortality counts are 5 year average annual (1994-1998) and are rounded to the nearest whole. Percentages are based on unrounded counts and totals. All sites includes in-situ bladder; all other in-situ cases are excluded. African American and "other" races are non-Hispanic. Hispanics can be of any race. Other races include Asians, American Indians, Alaskan Natives, Native Hawaiians or other Pacific Islander.

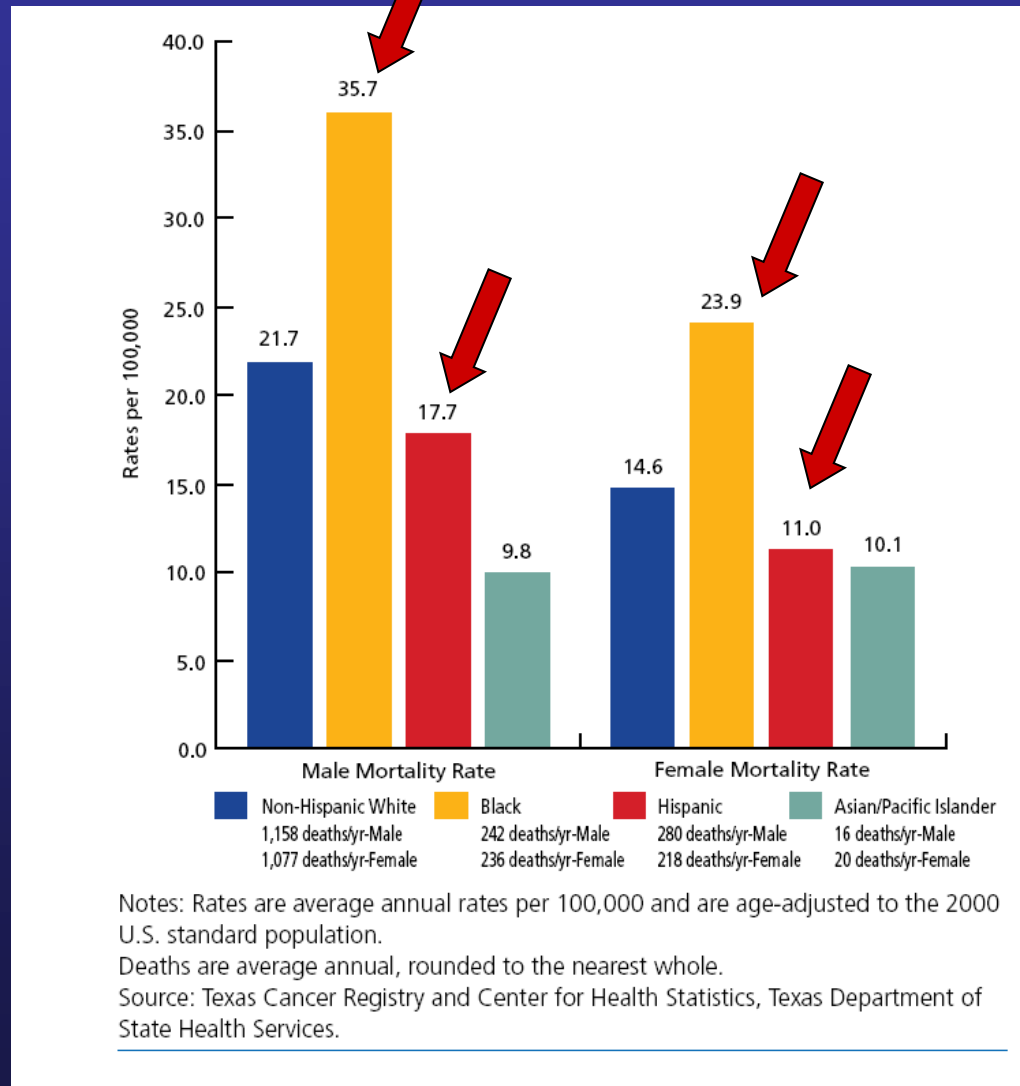
Source: Texas Cancer Registry

FEMALES INCIDENCE			FEMALES MORTALITY		
NON-HISPANIC WHITE			NON-HISPANIC WHITE		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Breast	7,918	31.2	Lung and Bronchus	2,932	26.7
Lung and Bronchus	3,747	14.8	Breast	1,734	15.8
Colon and Rectum	2,907	11.5	Colon and Rectum	1,177	10.7
Corpus and Uterus, NOS	1,267	5.0	Ovary	582	5.3
Non-Hodgkin's Lymphomas	987	3.9	Pancreas	565	5.1
All Sites	25,356	100.0	All Sites	11,000	100.0
AFRICAN AMERICAN			AFRICAN AMERICAN		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Breast	1,022	29.2	Lung and Bronchus	346	19.3
Colon and Rectum	476	13.6	Breast	337	18.8
Lung and Bronchus	452	12.9	Colon and Rectum	224	12.5
Cervix	161	4.6	Pancreas	118	6.6
Corpus and Uterus, NOS	160	4.6	Cervix	70	3.9
All Sites	3,500	100.0	All Sites	1,795	100.0
HISPANIC			HISPANIC		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Breast	1,389	28.8	Breast	343	18.1
Colon and Rectum	431	8.9	Lung and Bronchus	224	11.9
Cervix	346	7.2	Colon and Rectum	150	7.9
Lung and Bronchus	308	6.4	Pancreas	113	6.0
Corpus and Uterus, NOS	266	5.5	Ovary	106	5.6
All Sites	4,830	100.0	All Sites	1,891	100.0
OTHER RACES			OTHER RACES		
Site	Average Annual Cases	Percent of Total	Site	Average Annual Deaths	Percent of Total
Breast	139	29.5	Lung and Bronchus	25	19.0
Colon and Rectum	44	9.3	Breast	18	13.7
Lung and Bronchus	43	9.0	Colon and Rectum	12	8.8
Thyroid	27	5.7	Liver & Intrahepatic Bile Duct	10	7.7
Ovary	26	5.4	Stomach	8	6.2
All Sites	471	100.0	All Sites	132	100.0

Notes: Incidence counts are 4 year average annual (1995-1998) and are rounded to the nearest whole. Mortality counts are 5 year average annual (1994-1998) and are rounded to the nearest whole. Percentages are based on unrounded counts and totals. All sites includes in-situ bladder; all other in-situ cases are excluded. NOS=Not otherwise specified. African American and "other" races are non-Hispanic. Hispanics can be of any race. Other races include Asians, American Indians, Alaskan Natives, Native Hawaiian or other Pacific Islander.

Source: Texas Cancer Registry

Colon & Rectum Cancer Mortality Counts & Rates by Race/ Ethnicity, Texas, 2001 - 2005



REALITY #1

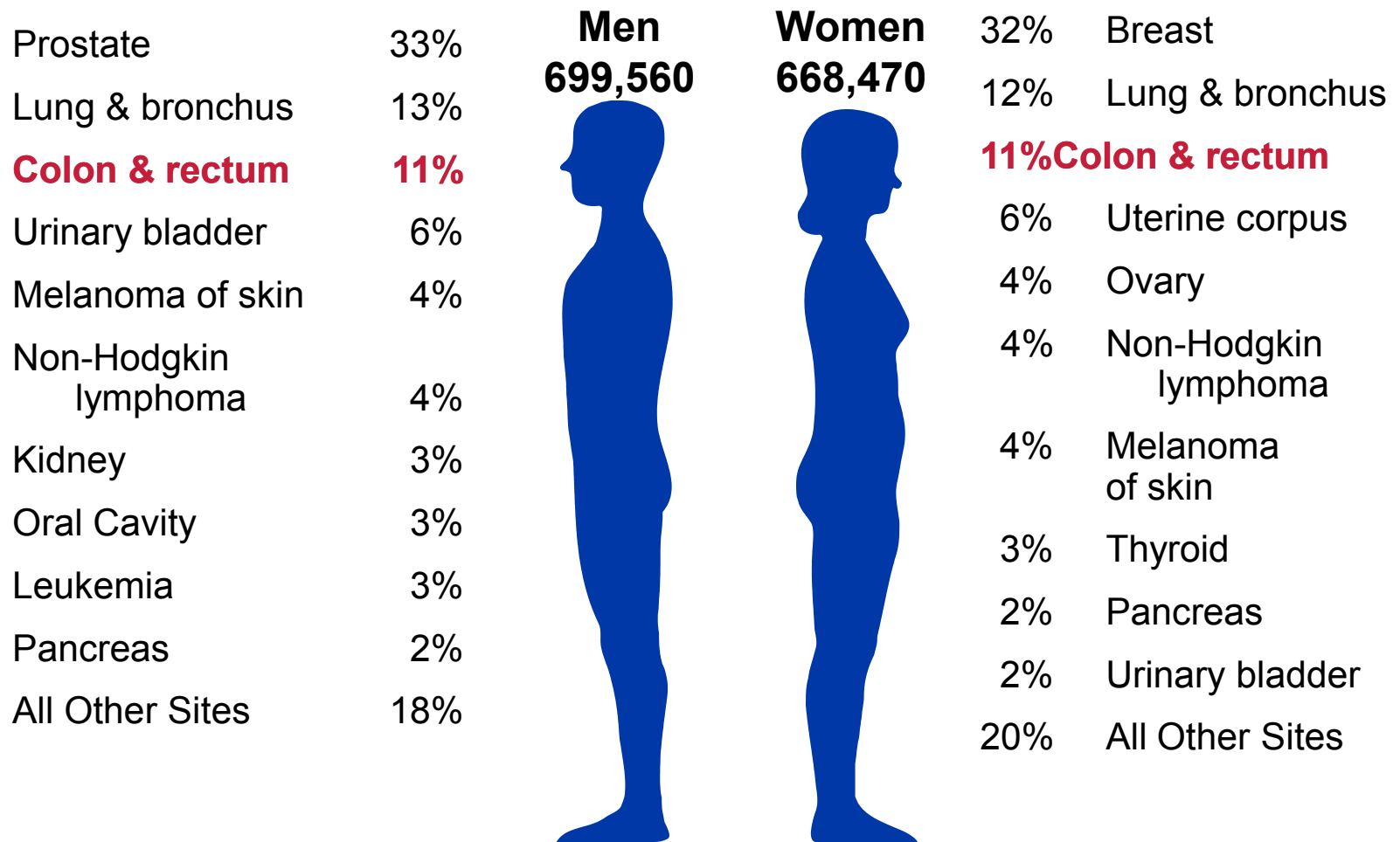
- Colon cancer is not a disease of older, white men only
 - Nearly 90% of colon cancer patients are over 50
 - Colon cancer is just as common among men & women
 - African Americans & Hispanics are more likely to be diagnosed with colorectal cancer in its advanced stages.



MYTH #2

**Colon and rectal cancers
are rare forms of cancer**

2004 Estimated US Cancer Cases*



*Excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.

Source: American Cancer Society, 2004.

Lifetime Probability of Developing Cancer, by Site, Men, US, 1998-2000

Site	Risk
All sites	1 in 2
Prostate	1 in 6
Lung & bronchus	1 in 13
Colon & rectum	1 in 17
Urinary bladder	1 in 29
Non-Hodgkin lymphoma	1 in 48
Melanoma	1 in 55
Leukemia	1 in 70
Oral cavity	1 in 72
Kidney	1 in 69
Stomach	1 in 81

Lifetime Probability of Developing Cancer, by Site, Women, US, 1998-2000

Site	Risk
All sites	1 in 3
Breast	1 in 7
Lung & bronchus	1 in 17
Colon & rectum	1 in 18
Uterine corpus	1 in 38
Non-Hodgkin lymphoma	1 in 57
Ovary	1 in 59
Pancreas	1 in 83
Melanoma	1 in 82
Urinary bladder	1 in 91
Uterine cervix	1 in 128

REALITY #2

- Colon and rectal cancers are common forms of cancer
 - More than 1 in 20 people will be diagnosed
 - People at high risk are more commonly affected
 - Family history of any cancer
 - Personal history of any cancer
 - Poor diet, little activity or obesity



MYTH #3

**Screening is only necessary if
you have symptoms.**

Symptoms of Colon Cancer

SYMPTOM	FREQUENCY
Pain	40.5%
Change in bowel habits	33.2%
Rectal Bleeding	28.5%
Occult Bleeding	34.3%
Malaise	16.0%
Bowel Obstruction	14.9%
Pelvic Pain	3.4%
Emergency presentation	6.6%
Jaundice	1%

POLYPS & CANCERS:

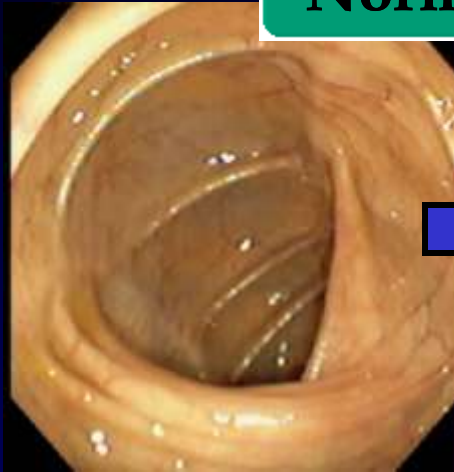
Adenoma - Carcinoma Sequence



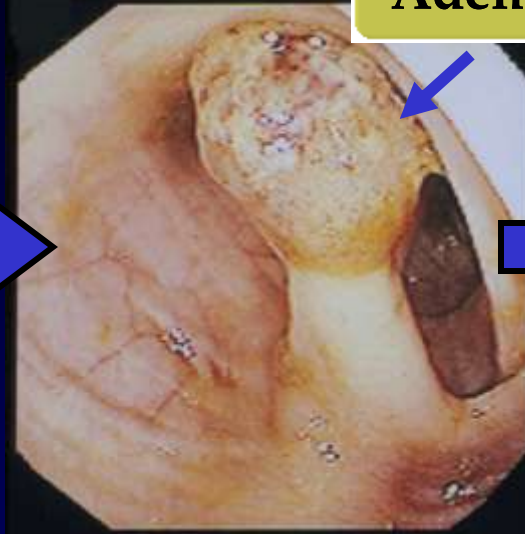
- About 90% of cancers begin as adenomatous polyps
- 25% of adults > age 50 have polyps
- 5-10% of polyps become cancers within 20 years (~2.5/1000/year)

Adenoma to Carcinoma Pathway

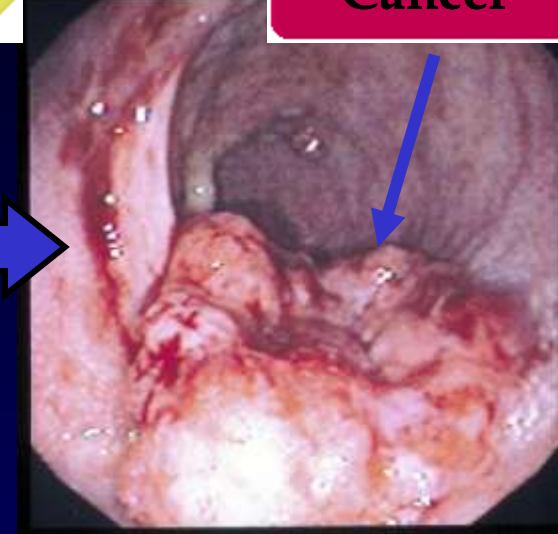
Normal



Adenoma



Cancer



APC
loss

K-ras
mutation

Chrom 18
loss

p53
loss

Normal
Epithelium

Hyper-
proliferation

Early
Adenoma

Intermediate
Adenoma

Late
Adenoma

Cancer

REALITY #3

- **Screening is necessary regardless of symptoms at age 50**
 - Most people have no symptoms
 - This is when colon cancer is at its earliest
 - Cure is more likely when there are no symptoms
 - If you are at high risk, “surveillance” starts earlier before symptoms appear
 - About 75% of new cases occur in individuals with no known risk factors for the disease, other than being 50 or older.



MYTH #4

Colonoscopy is a screening procedure only & I'll still require surgery if they find anything.

REALITY #4

- Colonoscopy is not only a screening procedure but also prevents cancer
- Surgery can be avoided
- If cancer is found, it is likely at an early stage & can be cured with less treatment
- No other cancer can be prevented by the screening procedure for that cancer!



MYTH #5

Colon cancer is always fatal

COLORECTAL CANCER STAGING

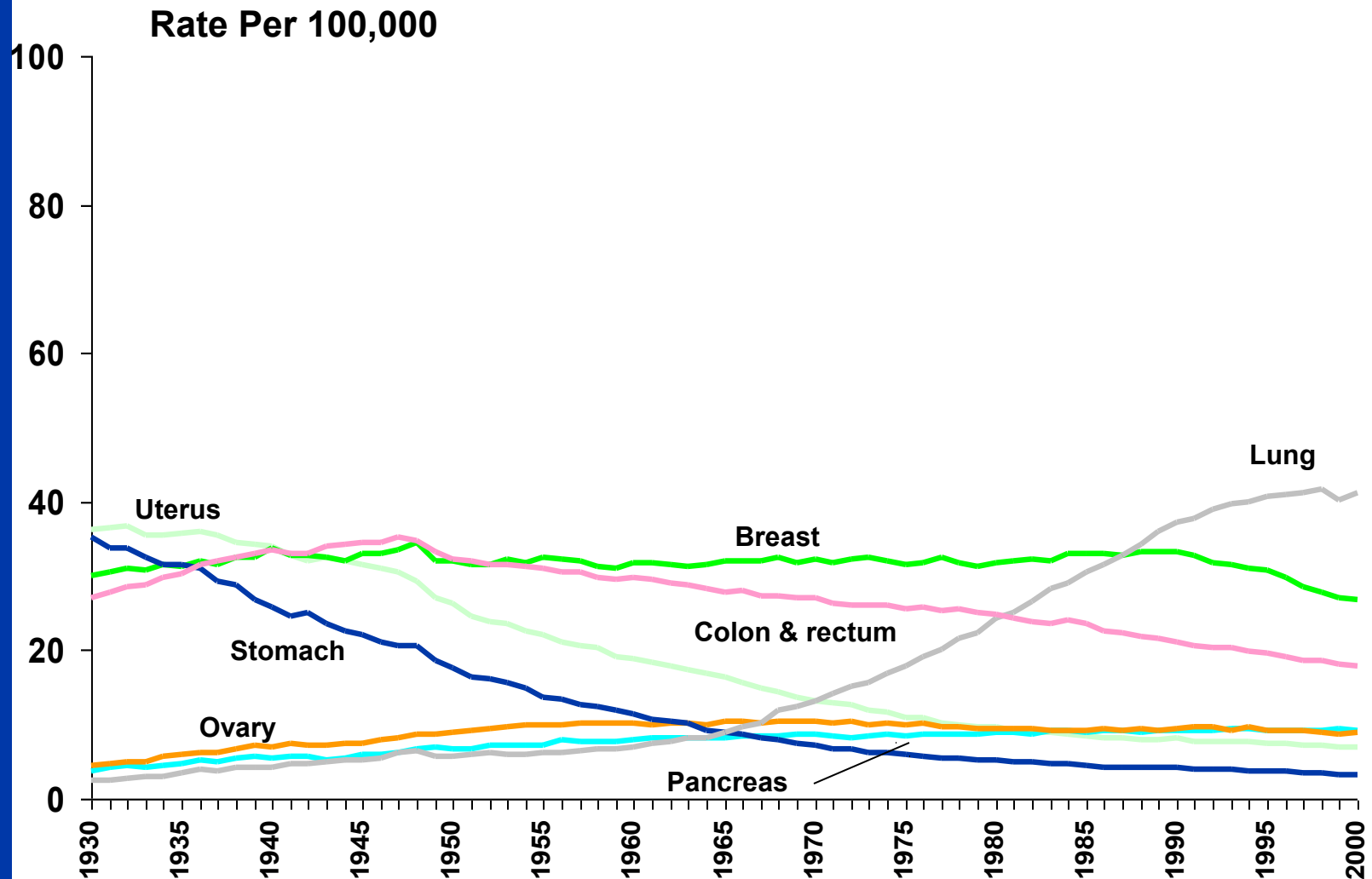
- Based on penetration of:
 - bowel wall
 - nodal spread or involvement
 - distant spread or metastasis, example liver or lungs
- Used to describe/compare patients & prognosis
- Helps determine what types of treatment will be successful
- The higher the stage, the worse to outcomes

FIVE-YEAR RELATIVE SURVIVAL RATES BY STAGE, 1992-1997

SITE	ALL	LOCAL	REGIONAL	DISTANT
LUNG & BRONCHUS	15	48	21	3
BREAST	86	96	78	21
PROSTATE	96	100	---	34
<i>COLORECTAL</i>	61	<i>90</i>	64	<i>8</i>

If the cancer is found early, 5 year survival is 90%.
Only 37% of cancers are found in this stage.

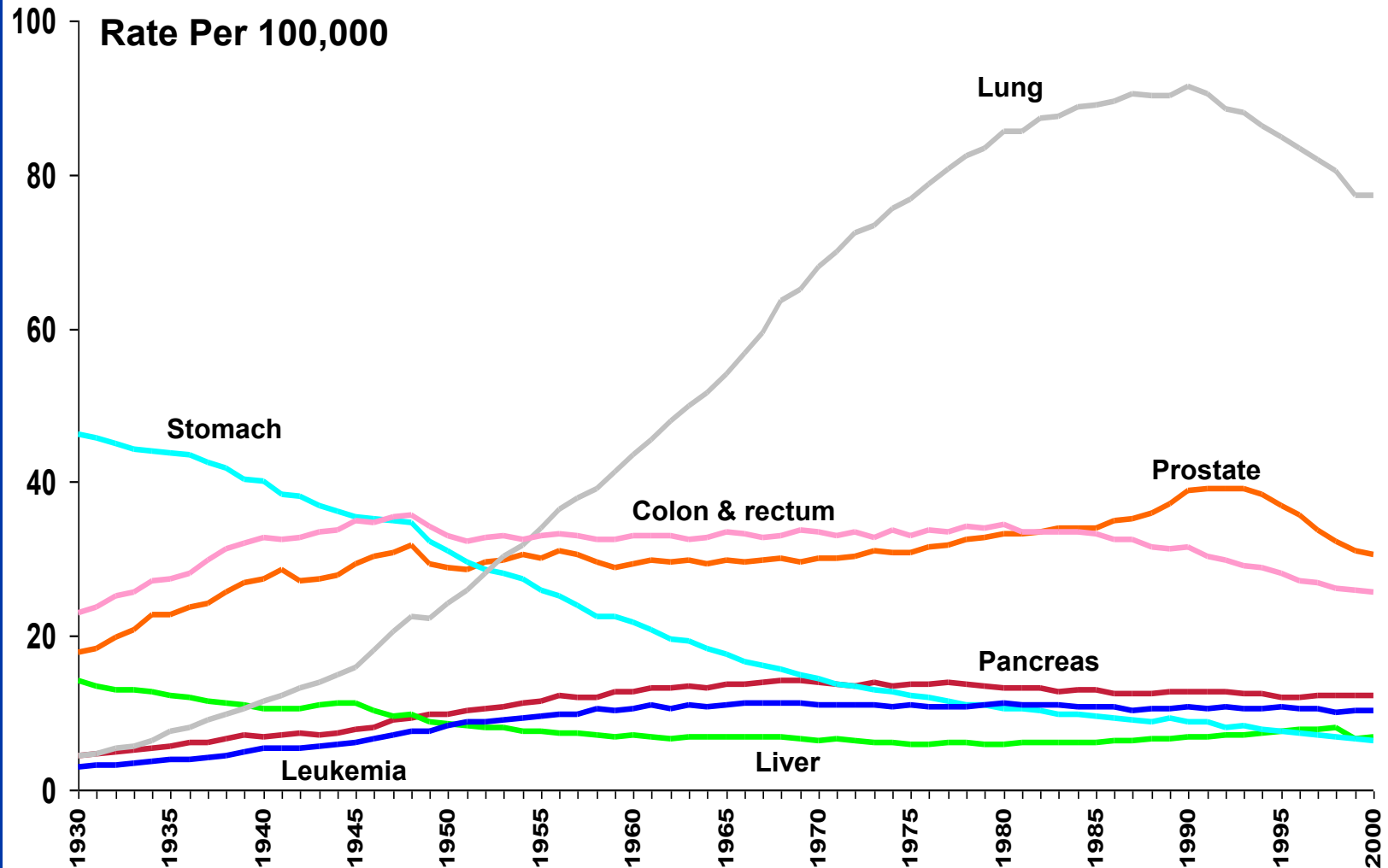
Cancer Death Rates*, for Women, US, 1930-2000



*Age-adjusted to the 2000 US standard population.

Source: US Mortality Public Use Data Tapes 1960-2000, US Mortality Volumes 1930-1959, National Center for Health Statistics, Centers for Disease Control and Prevention, 2003.

Cancer Death Rates* for Men US, 1930-2000



*Age-adjusted to the 2000 US standard population.

Source: US Mortality Public Use Data Tapes 1960-2000, US Mortality Volumes 1930-1959, National Center for Health Statistics, Centers for Disease Control and Prevention, 2003.

REALITY #5

- Colon cancer is not always fatal
- When caught early, it is 95% curable
- The key:
 - Have polyps removed to prevent cancer
 - Get screened to catch it early
 - If diagnosed, get treated aggressively



MYTH #6

Surgery for colon cancer is major & will result in a colostomy bag.

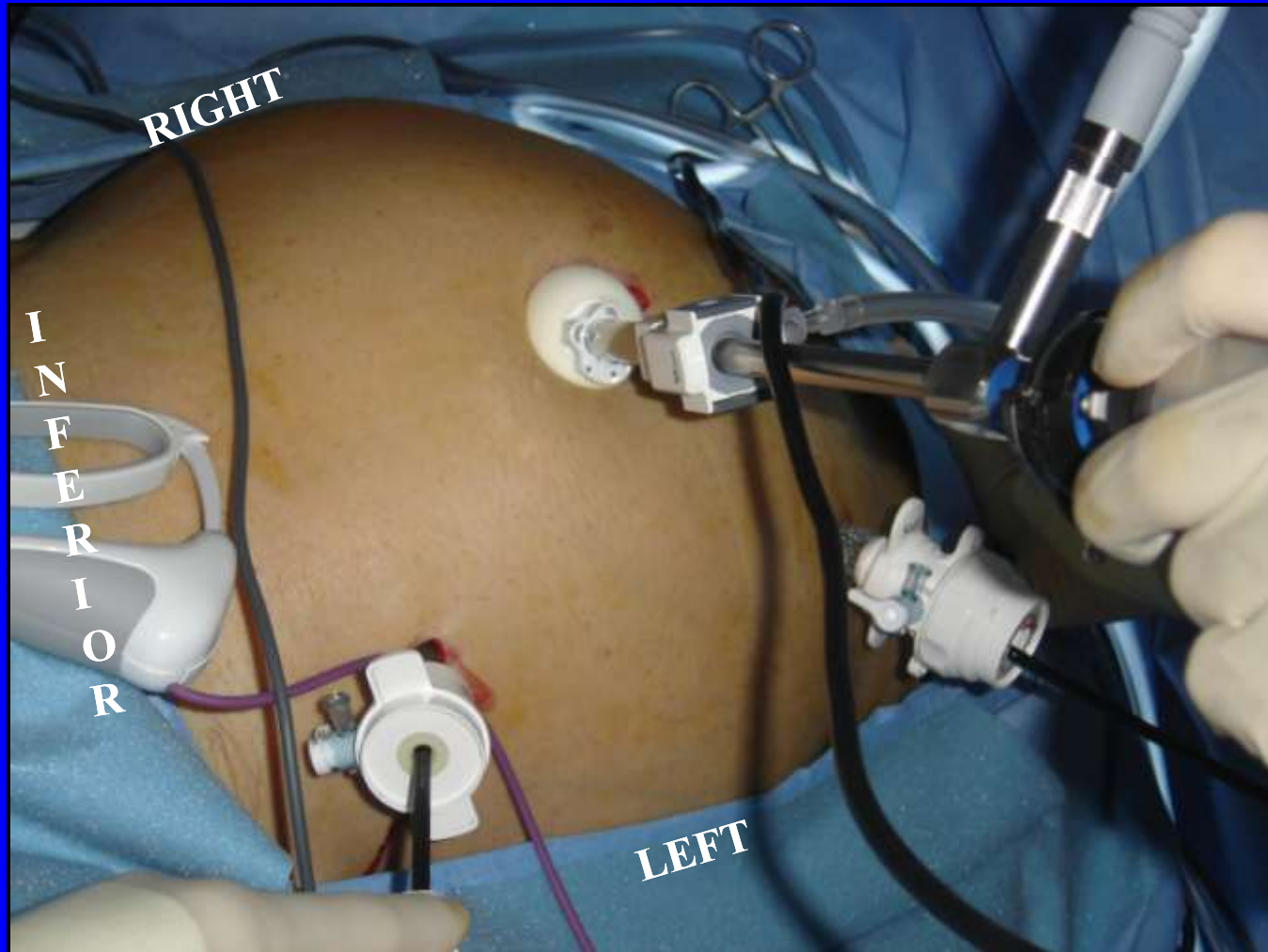
Surgical Treatment

- Surgical resection removes the cancer containing bowel
- Reasons for surgery
 - Cure/Staging
 - Palliation or reduction of symptoms
 - Prophylaxis or prevention of cancer
- Only about 15% of colorectal cancer patient require a permanent colostomy

COLON CANCER: Treatment Options

- Surgery in nearly all cases for complete cure, sometimes in conjunction with radiation and/or chemotherapy.
- Surgery is the mainstay of treatment for cure of colon cancer

LAPAROSCOPIC COLECTOMY



REALITY #6

- Surgery for colon cancer is not always major
 - If you have polyps removed, you may avoid surgery altogether
 - There are less invasive approaches to colon cancer surgery
- Surgery infrequently results in a colostomy



MYTH #7

Colorectal cancer screening is not covered under most health plans.

REALITY #7

- The government expanded Medicare coverage (1998) to include colorectal cancer screenings.
- Many commercial health plans also cover the cost of screening.
- Texas has laws to ensure you can be screened with your insurance coverage



MYTH #8

Even when colorectal cancer has been cured, bowel habits never return to normal, & food intolerance is common.

REALITY #8

- Most people live a productive life, with good quality after curative surgery
- People can eat the foods they enjoy
- The vast majority of people return to work after being cured of colon cancer even if they have a colostomy



MYTH #9

**Colon cancer is inherited so there
is nothing I can do about it.**

HEREDITARY CATEGORIES

What is your family history??

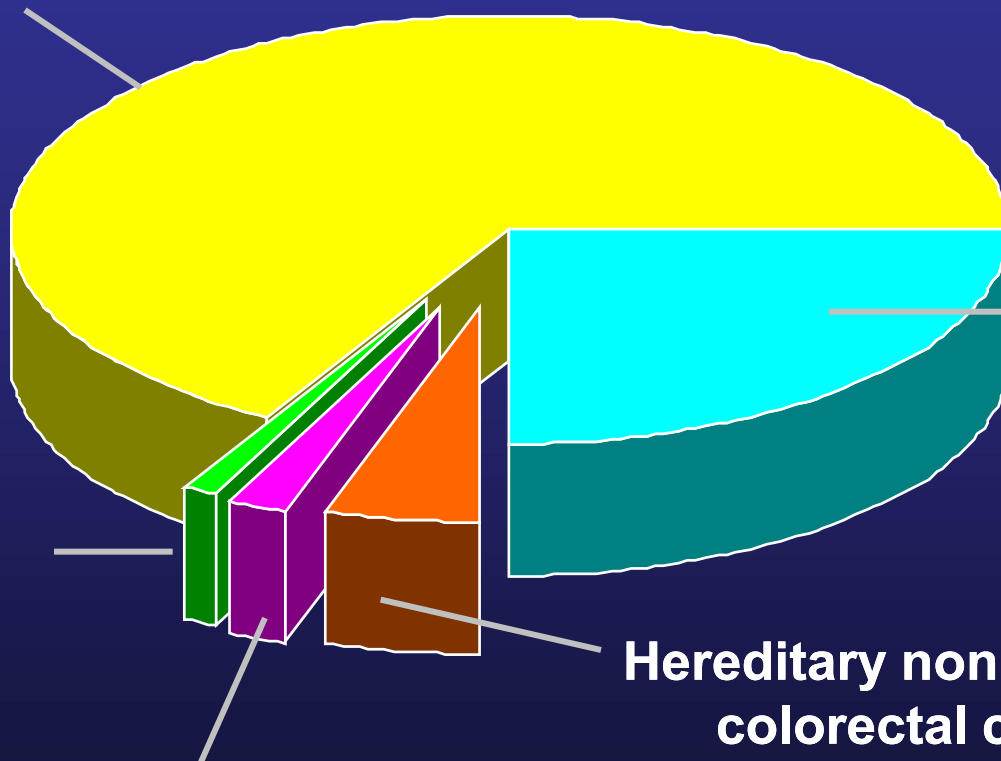
Sporadic or average risk
(65%–85%)

Family history
(10%–30%)

Rare
syndromes
($<0.1\%$)

Hereditary nonpolyposis
colorectal cancer
(HNPCC) (5%)

Familial adenomatous
polyposis (FAP) (1%)





REALITY #9

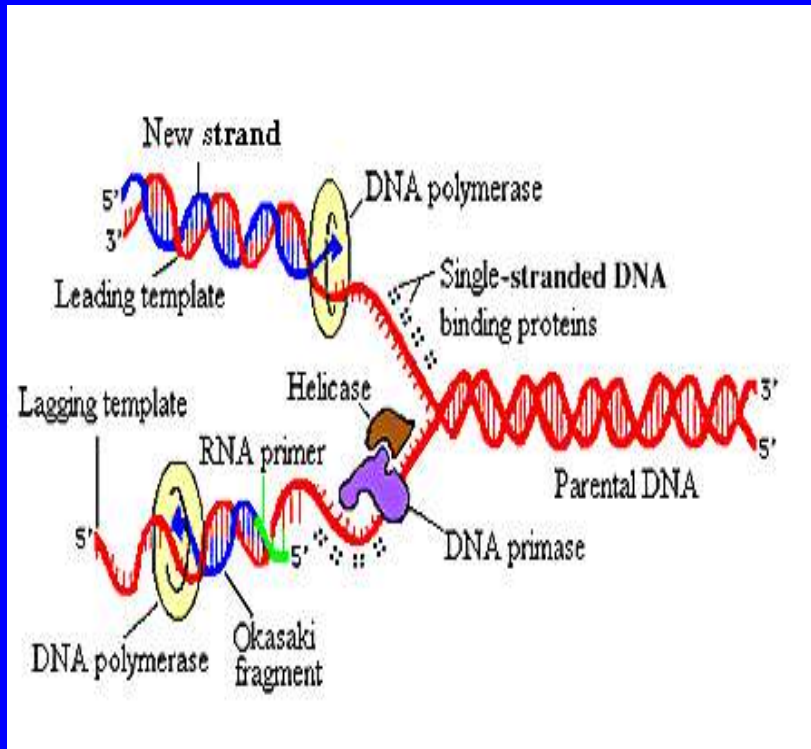
- Colon cancer is most commonly sporadic
- Most family syndromes are easily identified
- Even if inherited, there are treatments or options for detection



MYTH #10

**Chemotherapy or radiation makes
people very sick**

MECHANISM OF CHEMOTHERAPY & RADIATION



- **Chemotherapy**
 - installs “false” building blocks into DNA
 - prevents DNA synthesis
- **Radiation**
 - “punches” holes in DNA
 - Often used with chemo.

Chemotherapy & Radiation for Colorectal Cancer

- **Chemotherapy**

- For stage III & IV colon cancer
- Used with radiation for rectal cancer
- Chemotherapy routes
 - Intravenous
 - Oral
 - Intrahepatic

- **Radiation**

- Used before/after surgery for stage II - IV rectal cancer
- Rarely used for colon cancer
- Radiation types
 - External beam
 - Intra-operative

REALITY #10

- Chemotherapy or radiation for colorectal cancer is mild compared with other cancers.
- Research has allowed for decreased dosages
- Oral form is being used more commonly



Happy Colon Cancer Awareness Month