Digestive & Liver Disease Wellness
Colorectal Cancer Screening & Prevention
According to the American Cancer Society, this year 136,830 people in the U.S. will be diagnosed with colon cancer — and 50,310 will die from it.
Despite its high incidence, colon cancer is unique in that it is one of the most preventable and, if found early, most treatable forms of cancer.
According to the American Cancer Society, this year 136,830 people in the U.S. will be diagnosed with colon cancer—and 50,310 will die from it.

Screening is the #1 way we can reduce our risk of colon cancer.
Colon Cancer Hot Spots
The American Cancer Society projects that 3,260 people will be diagnosed with colon cancer and 1,190 people will die from colon cancer in the State of Virginia in 2017.
Our Community’s Hot Spots
Colorectal Cancer Incidence, 50-75 years, 2009-2013
Colorectal Cancer Mortality, 50-75 years, 2010-2014

Data source: VDH Division of Health Statistics Mortality data. Based on combined 2010-2014 data. Case counts less than 15 were too small to calculate a reliable rate; therefore, data were not displayed.
Risk for colon cancer increases with age
WHO GETS COLORECTAL CANCER?

ANYONE CAN GET COLORECTAL CANCER, BUT SOME PEOPLE ARE AT AN INCREASED RISK.

INCEPTION PER 100,000* [2008-2012]

<table>
<thead>
<tr>
<th>GENDER</th>
<th>AGE</th>
<th>RACE/ETHNICITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMEN</td>
<td>UNDER 50</td>
<td>NON-HISPANIC WHITE</td>
</tr>
<tr>
<td></td>
<td>50+</td>
<td>NON-HISPANIC BLACK</td>
</tr>
<tr>
<td>MEN</td>
<td></td>
<td>HISPANIC/LATINO</td>
</tr>
</tbody>
</table>

*Age adjusted to the 2000 US standard population
Both are polyps. Screening finds cancer early.
90% 5-YEAR SURVIVAL RATE IF FOUND AT THE LOCAL STAGE
39% DIAGNOSED AT AN EARLY STAGE PARTLY DUE TO LOW TESTING RATES

STAGES OF COLORECTAL CANCER

POLYP
Most colorectal cancers develop from these noncancerous growths.

IN SITU
Cancer has formed, but is not yet growing into the colon or rectum walls; nearby tissue is unaffected.

LOCAL
Cancer is growing in the colon or rectum walls.

REGIONAL
Growth is into tissue or lymph nodes, beyond the colon or rectum walls.

DISTANT
Cancer has spread to other parts of the body, such as liver or lungs.
70% screened

Virginia residents, 50 years or older, 2014

Fecal occult blood test within the past year or sigmoidoscopy within the past 5 years or colonoscopy within the past 10 years

Source: Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention, 2014
<table>
<thead>
<tr>
<th>TYPE OF SCREENING TEST</th>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible Sigmoidoscopy</td>
<td>• Fairly quick</td>
<td>• Doesn’t view upper part of colon</td>
</tr>
<tr>
<td></td>
<td>• Sedation usually not used</td>
<td>• Can’t see or remove all polyps</td>
</tr>
<tr>
<td></td>
<td>• Does not require a specialist</td>
<td>• Colonoscopy needed if abnormal</td>
</tr>
<tr>
<td></td>
<td>• Should be done every 5 years</td>
<td></td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>• Can usually view entire colon</td>
<td>• Costs more than other tests</td>
</tr>
<tr>
<td></td>
<td>• Can biopsy and remove polyps</td>
<td>• Higher risk than other tests</td>
</tr>
<tr>
<td></td>
<td>• Done every 10 years</td>
<td>• Full bowel preparation needed</td>
</tr>
<tr>
<td>Double-contrast Barium Enema</td>
<td>• Can usually view entire colon</td>
<td>• Can miss small polyps</td>
</tr>
<tr>
<td></td>
<td>• Relatively safe</td>
<td>• Can’t remove polyps during test</td>
</tr>
<tr>
<td></td>
<td>• No sedation needed</td>
<td>• Full bowel preparation needed</td>
</tr>
<tr>
<td></td>
<td>• Should be done every 5 years</td>
<td>• Colonoscopy needed if abnormal</td>
</tr>
<tr>
<td>CT Colonography</td>
<td>• Fairly quick and safe</td>
<td>• Still fairly new test</td>
</tr>
<tr>
<td></td>
<td>• Can usually view entire colon</td>
<td>• Can’t remove polyps during test</td>
</tr>
<tr>
<td></td>
<td>• No sedation needed</td>
<td>• Full bowel preparation needed</td>
</tr>
<tr>
<td></td>
<td>• Should be done every 5 years</td>
<td>• Colonoscopy needed if abnormal</td>
</tr>
<tr>
<td>Guaiac-based Fecal Occult Blood Test / Fecal Immunochemical Test</td>
<td>• No direct risk to the colon</td>
<td>• May miss some polyps/cancers</td>
</tr>
<tr>
<td></td>
<td>• No bowel preparation</td>
<td>• Done every year</td>
</tr>
<tr>
<td></td>
<td>• Sampling done at home</td>
<td>• Colonoscopy needed if abnormal</td>
</tr>
<tr>
<td>Stool DNA Test</td>
<td>• No direct risk to the colon</td>
<td>• May miss some polyps/cancers</td>
</tr>
<tr>
<td></td>
<td>• No bowel preparation</td>
<td>• Done every 3 years</td>
</tr>
<tr>
<td></td>
<td>• Sampling done at home</td>
<td>• Colonoscopy needed if abnormal</td>
</tr>
</tbody>
</table>
Hepatitis C Screening and Treatment
According to the American Cancer Society, this year 136,830 people in the U.S. will be diagnosed with colon cancer—and 50,310 will die from it. Up to 3 in 4 people who are infected don’t know they have Hepatitis C so they aren’t getting the necessary medical care.
Global Prevalence of Chronic HCV Infection

- About 2% of world population estimated to have chronic HCV
- Egypt, Pakistan, and China have high rates of chronic HCV infection due to lack of standard precautions
- In the U.S. 3.2 million people, with estimates as high as 7 million, have chronic HCV, and ~12,000 die/year

* Miller et al. estimate about 18 million overall prevalence; In another study, Guerra et al estimated ~ 12.1 million 15-59 year olds are infected.

The US Prevalence of Hepatitis C Infection Is Likely Underestimated

- The CDC estimates US prevalence to be 2.7-3.9 million (1%-1.5%)\(^1,2\)
  
  Based on NHANES data, which excludes homeless and incarcerated populations\(^2\)

- HCV infection prevalence may be as high as \(\sim 7\) million with inclusion of populations omitted or underrepresented* by NHANES\(^3\)

*Homeless, incarcerated, Veterans, active military duty, healthcare workers, nursing home residents, and patients on chronic hemodialysis or with hemophilia who received transfusions before 1992.

CDC=Centers for Disease Control and Prevention; NHANES=National Health and Nutrition Examination Survey; HCV=hepatitis C virus.

To achieve similar mortality decreases in HCV as seen with HIV requires new policy initiatives to detect and link HCV patients to care and treatment.
Mortality From Viral Hepatitis in the US (1999-2007)

Analysis of US multiple-cause mortality data from the National Center for Health Statistics

- Death certificate data in all US states and District of Columbia
- Approximately 21.8 million decedents

Change in age-adjusted mortality rates (per 100,000 person-years)

- HCV: increased 0.18 ($P=0.002$)
- HIV: decreased 0.21 ($P=0.001$)

*Because a decedent can have multiple causes of death, a record listing >1 type of infection was counted for each type of infection. Ly KN, et al. Ann Intern Med. 2012;156:271-278
The US Prevalence of Hepatitis C Infection Is Highest in the 1945-1965 Birth Cohort

Based on CDC estimates, 77% of individuals infected with HCV (~2.06 million) were born between 1945 and 1965\(^1\)

So who should be screened?
CDC Risk-Based HCV Screening Recommendations

Screening need is recommended in person who:

• Are Baby Boomers (born between 1945 and 1965)
• Ever injected illegal drugs
• Received clotting factors made before 1987
• Received blood/organs before July 1992, or from infected donor
• Have ever been on hemodialysis
• Have evidence of liver disease (persistently elevated ALT)
• Were born to HCV infected mothers
• Have HIV infection
• Received a needle stick injury or mucosal exposure to HCV-positive blood (health care, emergency medical and public safety workers)

Adapted from Centers for Disease Control and Prevention (CDC.gov) February, 2018.
CDC Risk-Based HCV Screening Recommendations

Screening need is uncertain in persons who:

- Recipients of transplanted tissue (e.g., corneal, musculoskeletal, skin, ova, sperm)
- Intranasal cocaine and other non-injecting illegal drug users
- Persons with a history of tattooing or body piercing
- Persons with a history of multiple sex partners or sexually transmitted diseases
- Long-term steady sex partners of HCV-positive persons

Routine screening is NOT recommended for (unless they have risk factors for infection):

- Health-care, emergency medical, and public safety workers
- Pregnant women
- Household (nonsexual) contacts of HCV-positive persons
- General population

Adapted from Centers for Disease Control and Prevention (CDC.gov) February, 2018.
According to the American Cancer Society, this year 136,830 people in the U.S. will be diagnosed with colon cancer—and 50,310 will die from it.

No risk factor identified in 10% of HCV cases.

40% of HCV-infected persons are unaware of their risk.
Routes of Transmission

Other Possible Routes:

- Tattoo/ Body Piercing or Needle-Stick Injuries
- Hemodialysis
- Sexual Conduct
- Maternal-Fetal Transmission


Recommended Testing Sequence

Initial testing:

1. Hepatitis C Antibody
   - If Negative: No prior exposure to Hepatitis C

Further testing:

- Hepatitis C Viral Level + Hepatitis C Genotype = Negative
  - The virus has been cleared
  - Positive treatment is needed
Treatment Options

Hepatitis C can be treated...

It is so simple now!!!

All oral regimens of 1-3 pills daily for 8-12 weeks

• Little to no side effects
• 94%-100% efficacy
Esophageal Cancer Screening and Prevention
Understanding Barrett’s Esophagus
Barrett’s esophagus and your risk for Esophageal Cancer

What is Barrett’s esophagus?

Barrett's esophagus is the condition in which the normal esophageal lining has been replaced by the lining that is normally found in the small intestine. The condition develops as a consequence of chronic gastroesophageal reflux disease (GERD), and predisposes to the development of adenocarcinoma of the esophagus.

Incidence/ Epidemiology of Esophageal Cancer

The American Cancer Society’s estimates for esophageal cancer in the United States for 2018 are:
- About 17,290 new esophageal cancer cases diagnosed (13,480 in men and 3,810 in women)
- About 15,850 deaths from esophageal cancer (12,850 in men and 3,000 in women)

The lifetime risk of esophageal cancer in the United States is about 1 in 132 in men and about 1 in 455 in women.
ACG Clinical Guideline: Barrett’s esophagus

Screening is recommended in:

Men with GER symptoms weekly or more for more than 5 years who have two or more risk factors:

- >50 years old
- Caucasian Race
- Central obesity — waist circumference >102cm (40.1in.) in men, >88cm (34.6in.) in women
- Current or past history of smoking
- Confirmed family history of Barrett’s Esophagus or esophageal adenocarcinoma in a first-degree relative.

Women with chronic GER symptoms weekly or more for more than 5 years who have "multiple" risk factors.
Testing Options for Barrett’s Esophagus

If Negative
- No need for future screenings

If Positive
- Treatment depends on severity of disease
- Repeat Testing

Consult with Gastroenterology to determine appropriate test

Endoscopy with Sedation

Unsedated Transnasal Endoscopy

Consult with Gastroenterology to determine appropriate test