ACS Colorectal Cancer Screening Guideline for Average Risk Adults 2018
**How are Cancer Screening Guidelines Developed?**

**ACS Guideline Development Process**

- **Guideline Development Group (GDG) & GDG CRC Sub-group**
- **Systematic Evidence Review & Modeling Reports [existing (and supplemented) or Commissioned]**
- **External Expert Advisors**
- **Mission Outcomes Committee**
- **ACS Board of Directors**
- **External Review (Experts and Stakeholder Organizations)**
- **Publication**

**Staff**
The ACS recommends that adults aged **45 years and older** with an average risk of colorectal cancer undergo regular screening with either a high-sensitivity stool-based test or a structural (visual) exam, depending on patient preference and test availability.

As a part of the screening process, all positive results on non-colonoscopy screening tests should be followed up with timely colonoscopy.
ACS 2018 Recommendations for CRC Screening

• Age to start screening
  The recommendation is based on the preponderance of benefits of CRC screening over harms, the overall quality of the evidence on screening outcomes, and the high value individuals place on preventing and avoiding death from CRC.
  ✓ Start at age 45 y (Qualified)
  ✓ Aged 50 and older (Strong)
• The ACS recommends that average-risk adults in good health with a life expectancy of greater than 10 years continue colorectal cancer screening through the age of 75 years. *(qualified recommendation)*

• The ACS recommends that clinicians individualize colorectal cancer screening decisions for individuals aged 76 through 85 years, based on patient preferences, life expectancy, health status, and prior screening history. *(qualified recommendation)*

• The ACS recommends that clinicians discourage individuals over age 85 years from continuing colorectal cancer screening. *(qualified recommendation)*
Options for CRC screening

**Stool-based tests:**
- Fecal immunochemical test (FIT) every year
- High sensitivity guaiac-based fecal occult blood test (HS-gFOBT) every year
- Multi-target stool DNA test (mt-sDNA) every 3 years

**Structural (visual) exams:**
- Colonoscopy (CSY) every 10 years
- CT Colonography (CTC) every 5 years
- Flexible sigmoidoscopy (FS) every 5 years

*As a part of the screening process, all positive results on non-colonoscopy screening tests should be followed up with timely colonoscopy.*
What has changed? (2018 vs 2008)

• Change in age to start screening to **45y from 50y**
• A General Recommendation vs. Specific Test Recommendations
• Emphasis on choice
  ✓ The recommendation for CRC screening includes offering patients the opportunity to select either a structural (visual) exam or a high-sensitivity stool-based test, depending on patient preference and test availability.
  ✓ Barium enema no longer recommended
• Guidance on when to stop screening
• Reinforce importance of follow up colonoscopy as part of the screening process
What informed the GDG decisions?

GRADE (Grading of Recommendations, Assessment, Development and Evaluation) criteria

• **Quality of evidence** - high-quality studies of test performance and effectiveness of screening
• Evidence on the burden of disease by age and race
• Modeling studies
• **Balance between desirable and undesirable effects** - benefits of each of the included screening modalities are significantly greater than the harms.
• **Values and preferences** – Since there is no single test that is consistently preferred by adults in the U.S., the GDG emphasized the importance of offering choice, rather than ranking tests based solely on quality of evidence for individual tests.
Trends in CRC incidence by age and year of birth

Rationale – Disease Burden of CRC

Figure 1. Trends in Colorectal Cancer Incidence Rates in Adults Younger than Aged 50 years by Race, 1975-2014

Rationale – Disease Burden of CRC

Percentage of Years of Potential Life Lost Due to Death from Colorectal Cancer by Age at Diagnosis (incidence-based mortality 2010-14 with follow-up 20 years after diagnosis)

> 10 % of all LYL is due to a diagnosis of CRC between ages 45-49
Model-estimated Benefit CRC Screening by Starting Age

Model-estimated Life Years Gained from CRC Screening Starting at Aged 45y vs 50y, per 1000 Screened Over a Lifetime

Modeling convincingly demonstrates that, due to the rising incidence of CRC in younger individuals, screening all average-risk persons between the ages of 45 and 75 reduces mortality from CRC with an acceptable risk (as measured by number of colonoscopies per LYG).

The previously expected benefit of starting screening at age 45 versus 50 can no longer be considered “modest.”

The trend of increasing CRC incidence in successively younger birth cohorts suggests that the recommended starting age of 45 will likely continue to be relevant.

The benefit-burden balance strongly favors changing the starting age from 50 to 45.
<table>
<thead>
<tr>
<th>Recommendations</th>
<th>ACS, 2018</th>
<th>USPSTF, 2016</th>
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<tbody>
<tr>
<td><strong>Age to start screening</strong></td>
<td>Age 45y&lt;br&gt;Starting at 45y (Q)&lt;br&gt;Screening at aged 50y and older - (S)</td>
<td>Aged 50y (A)</td>
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<td><strong>S-strong Q-qualified</strong></td>
<td></td>
<td>Different methods can accurately detect early stage CRC and adenomatous polyps.</td>
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<td><strong>Choice of test</strong></td>
<td>High-sensitivity stool-based test or a structural exam.</td>
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<td><strong>Acceptable Test options</strong></td>
<td>• FIT annually,&lt;br&gt;• HSGFOBT annually&lt;br&gt;• mt-sDNA every 3y&lt;br&gt;• Colonoscopy every 10y&lt;br&gt;• CTC every 5y&lt;br&gt;• FS every 5y&lt;br&gt;&lt;br&gt;All positive non-colonoscopy tests should be followed up with colonoscopy.</td>
<td>• HSGFOBT annually&lt;br&gt;• FIT annually&lt;br&gt;• sDNA every 1 or 3 y&lt;br&gt;• Colonoscopy every 10y&lt;br&gt;• CTC every 5y&lt;br&gt;• FS every 5y&lt;br&gt;• FS every 10y plus FIT every year</td>
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<td><strong>Age to stop screening</strong></td>
<td>Continue to 75y as long as health is good and life expectancy 10+y (Q)&lt;br&gt;76-85y individual decision making (Q)&lt;br&gt;&gt;85y discouraged from screening (Q)</td>
<td>76-85 y individual decision making (C)</td>
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Guideline Resources

- Visit cancer.org/colonmd to find more information, including:
  - Materials for health professionals
  - Materials for patients/consumers
  - Tools to facilitate conversations between clinicians and patients about selecting a screening test option that is consistent with patient preferences
  - Links to the 2018 guidelines article and modeling papers
Key References


• Peterse EFP, Meester RGS, Siegel , et al. The Impact of the Rising Colorectal Cancer Incidence in Young Adults on the Optimal Age to Start Screening: Microsimulation Analysis to Inform the American Cancer Society Colorectal Cancer Screening Guideline. Cancer. 10.1002/cncr.31543 [epub ahead of print].

• Meester RGS, Peterse EFP, Knudsen AB, et al. Optimizing colorectal cancer screening by race and sex: microsimulation analysis II to inform the American Cancer Society Colorectal Cancer Screening Guideline. Cancer. 10.1002/cncr.31542 [epub ahead of print].


Thank You!