



## TRUE or FALSE?

<p>Colorectal cancer is the 2nd leading cancer killer.</p> <p><b>TRUE</b> FALSE</p>	<p>Both men and women get colorectal cancer.</p> <p><b>TRUE</b> FALSE</p>
<p>Colorectal cancer often starts with no symptoms.</p> <p><b>TRUE</b> FALSE</p>	<p>You can stop this cancer before it starts.</p> <p><b>TRUE</b> FALSE</p>

## Colorectal Cancer Screening Modalities

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### Introduction

The United States Preventive Services Task Force (USPSTF) has updated their screening guidelines for colorectal cancer (CRC) for the average risk population. CRC is the second leading cause of cancer death in the United States (U.S.) in the combined male-female population.<sup>1</sup> It is estimated that in 2016 alone, 134,000 people will be diagnosed with the disease, and about 49,000 will die from it in the U.S.<sup>1</sup> In New Hampshire (NH), 620 people will be diagnosed with the disease, and about 190 will die from it.<sup>1</sup> NH has had lower CRC incidence (37.9 vs. 40.6 per 100,000 per year) and mortality (13.7 vs 15.1 per 100,000 per year) rates than the country as a whole.<sup>2</sup> However, significant health care disparities still exist. According to the 2015 NH Behavioral Risk Factor Surveillance Survey (BRFSS), the overall CRC screening rate for NH was 74.68%. Rates for low income residents and those with less education over age 50 were 60.2% and 55.4% respectively, highlighting the continued need to reach the unscreened, underserved populations.<sup>3</sup>

Screening addresses CRC both through prevention (preventing the cancer from occurring and thereby decreasing CRC incidence), and through early detection (finding CRC at an earlier stage in those who already have it), thereby providing a highly compelling rationale for CRC screening. This important public health issue has received increasing attention since 2001, when the Centers for Medicare and Medicaid Services (CMS) began coverage for screening colonoscopy. Partly due to the resulting increase in colonoscopy screening, CRC incidence rates in the U.S. have declined significantly in the last 15 years. Prevention of CRC is accomplished through screening with detection and removal of precancerous polyps. Furthermore, finding CRC early results in increased survival from this disease. Since CRC

often has no symptoms, providing education and increasing knowledge about screening is crucial to both prevention and early detection. Education about high-quality screening methods is key to raising awareness about this disease. Average risk adults aged 50 and older, or increased risk adults starting at an earlier age, should be regularly screened. However, many people are not getting tested because they do not believe they are at risk, do not understand the testing options, their providers have not recommended screening, or there are financial or other barriers.

### New Information

The updated 2016 USPSTF recommendations highlight that there is convincing evidence that CRC screening substantially reduces deaths from CRC among adults aged 50 to 75 years and that not enough adults in the U.S. are using this effective preventive intervention.<sup>4</sup> Review of the CRC screening recommendations and evidence for these screening methods can be found in the JAMA “Screening for Colorectal Cancer US Preventive Services Task Force Recommendation Statement,”<sup>4</sup> or at the USPSTF website.<sup>5</sup> The recommendations were based on rigorous reviews of existing peer-reviewed evidence, including the strength of the evidence and the balance of benefits and harms of colorectal cancer screening.<sup>5</sup> The USPSTF continues to give CRC screening a Grade of A, recommending the service as there is high certainty that the net benefit is substantial and suggesting that providers offer or provide CRC screening.<sup>4</sup>

In addition, two new screening modalities that were not previously recommended are now included in the USPSTF guidelines (see table below). These modalities are CT Colonography (“CTC” or “virtual colonoscopy”) and stool DNA (Cologuard: DNA/FIT).<sup>4</sup> The primary changes between the 2008 and 2016 guidelines are represented in Table 1 below. They include the addition of CTC every 5 years and stool DNA, currently recommended every 3 years by the manufacturer. In addition, the interval for flexible sigmoidoscopy has been increased to every 10 years with an annual interval FIT.<sup>4</sup> In terms of colonoscopy, it should be noted that a 10 year follow-up is only appropriate for average risk individuals with a normal colonoscopy.

**Table 1 - USPSTF CRC Screening Guidelines**

2016	2008
High sensitivity gFOBT or FIT annually or	High sensitivity FOBT annually or
Flexible sigmoidoscopy every 5 years or	Flexible sigmoidoscopy every 5 years with high sensitivity FOBT every 3 years or
Flexible sigmoidoscopy every 10 years with an annual FIT or	
Colonoscopy every 10 years or	Colonoscopy every 10 years
New: CT Colonography every 5 years or	
New: Stool DNA (Cologuard) every 1-3 years*	

1-3 years appears in the table of USPSTF Recommendations for Colorectal Cancer Screening Strategies on page 2566<sup>4</sup>; 3 years is the interval currently recommended by the manufacturer. Evidence about the most appropriate interval is pending.

In addition to the USPSTF recommendations for average risk individuals, The United States Multi-Society Task Force (USMSTF) provides recommendations on CRC surveillance (follow-up for people who have had polyps or CRC). These guidelines address individuals who are at increased risk particularly those who undergo surveillance for polyps or have a history of CRC.<sup>6</sup>

## Next Steps and Resources

As per the table above, the USPSTF advocates a variety of CRC screening options for the average risk population. Options for the average risk population include fecal occult blood testing (FOBT) which includes high sensitivity guaiac based testing (Hemoccult II Sensa) and fecal immunochemical tests (FITs: OC Light FIT and OC Auto FIT).<sup>4</sup> Other average risk options include flexible sigmoidoscopy, CT colonography (CTC), stool DNA, and colonoscopy.<sup>4</sup> For increased risk individuals, colonoscopy is the indicated test. It should also be noted that some CRC test options are aimed at early detection and others at prevention of CRC.

Using the updated CRC guidelines noted above, NH healthcare professionals can work to increase screening rates throughout the state, thereby decreasing the incidence and mortality of CRC and improving public health. Providers should become familiar with the new options for average risk patients, which may lead to increased screening rates among individuals who did not want to undergo screening by other modalities or for whom colonoscopy may not have been appropriate. Increasing high-quality CRC screening rates is a community-wide effort that requires cooperation from many different partners. In NH, one of these partners is the New Hampshire Colorectal Cancer Screening Program (NHCRCSP), a Centers for Disease Control & Prevention funded program. The purpose of the NHCRCSP is to increase high quality CRC screening in NH by providing expertise and support in the implementation of evidence-based interventions (EBIs) as recommended by the Community Guide for health systems, insurers and employers for persons 50-75 years of age. The following is a summary of recommended EBIs.<sup>7</sup>

- *Client Reminders* – Sending patients client reminders such as letters, postcards, e-mails or phone messages
- *Provider Reminders* – Informing providers that a patient is due for screening either through an electronic health record or through a paper or alternative system
- *Provider Assessment & Feedback* – Providing primary care providers with information about their screening rates, which may help to improve performance
- *Reducing structural barriers* – Removing some barriers to screening by keeping flexible clinic hours, working in non-clinical settings, and offering on-site translation, transportation, patient navigation and other helpful services
- *Small media* – Providing educational materials for patients about CRC screening and the benefits of screening, including informational videos, posters and other materials
- *One-on-one education* – Delivering information to individuals about indications for and benefits of screening, as well as methods to overcome barriers to cancer screening with the goal of informing, encouraging, and motivating people to seek recommended screening

In addition to the EBIs listed above, provider education is an important part of the NHCRCSP work, including developing support tools for providers and their staff, providing continuing education seminars, dissemination of articles and other relevant information, and educating providers about the recent changes in CRC screening guidelines. An excellent online continuing education course for primary care providers and endoscopists respectively is the CDC's Screening for Colorectal Cancer: Optimizing Quality,<sup>8</sup> which can be accessed at the following link ([www.cdc.gov/cancer/colorectal/quality](http://www.cdc.gov/cancer/colorectal/quality))

It is essential that organizations across the state work together in an effort to try to achieve the national goal of 80% for CRC screening. If we are successful, we will make a major impact on public health in NH.

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## References:

1. American Cancer Society. Cancer Facts & Figures 2016. Atlanta: American Cancer Society; 2016.
2. National Cancer Institute. *State Cancer Profiles 2009-2013*. Centers for Disease Control and Prevention. <https://www.statecancerprofiles.cancer.gov/index.html>. Accessed December 14, 2016.
3. New Hampshire Department of Health and Human Services, Bureau of Public Health Statistics and Informatics, "Behavioral Risk Factor Surveillance System Survey Data," Concord, NH; 2015.
4. US Preventive Service Task Force. Screening for Colorectal Cancer US Preventive Services Task Force Recommendation Statement. *JAMA*, 2016; 315(23): 2564-2575.
5. US Preventive Service Task Force. (2016). About the USPSTF. <https://www.uspreventiveservicestaskforce.org/Page/Name/about-the-uspstf>. Accessed November 10, 2016.
6. Lieberman, David A.; Rex, Douglas K.; Winawer, Sidney J.; Giardiello, Francis M.; Johnson, David A.; Levin, Theodore R. Guidelines for Colonoscopy Surveillance After Screening and Polypectomy: A Consensus Updated by the US Multi-Society Task Force on Colorectal Cancer. *Gastroenterology*, 2012; 143: 844-857.
7. The Community Guide (2016). What Works Cancer Prevention and Control: Cancer Screening Evidence-Based Interventions for Your Community. <https://www.thecommunityguide.org/sites/default/files/assets/What-Works-Cancer-Screening-fact-sheet.pdf>. Accessed November 10, 2016.
8. Centers for Disease Control and Prevention. Screening for Colorectal Cancer: Optimizing Quality CME. Division of Cancer Prevention and Control, Centers for Disease Control and Prevention. <http://www.cdc.gov/cancer/colorectal/quality>. Accessed November 15, 2016.