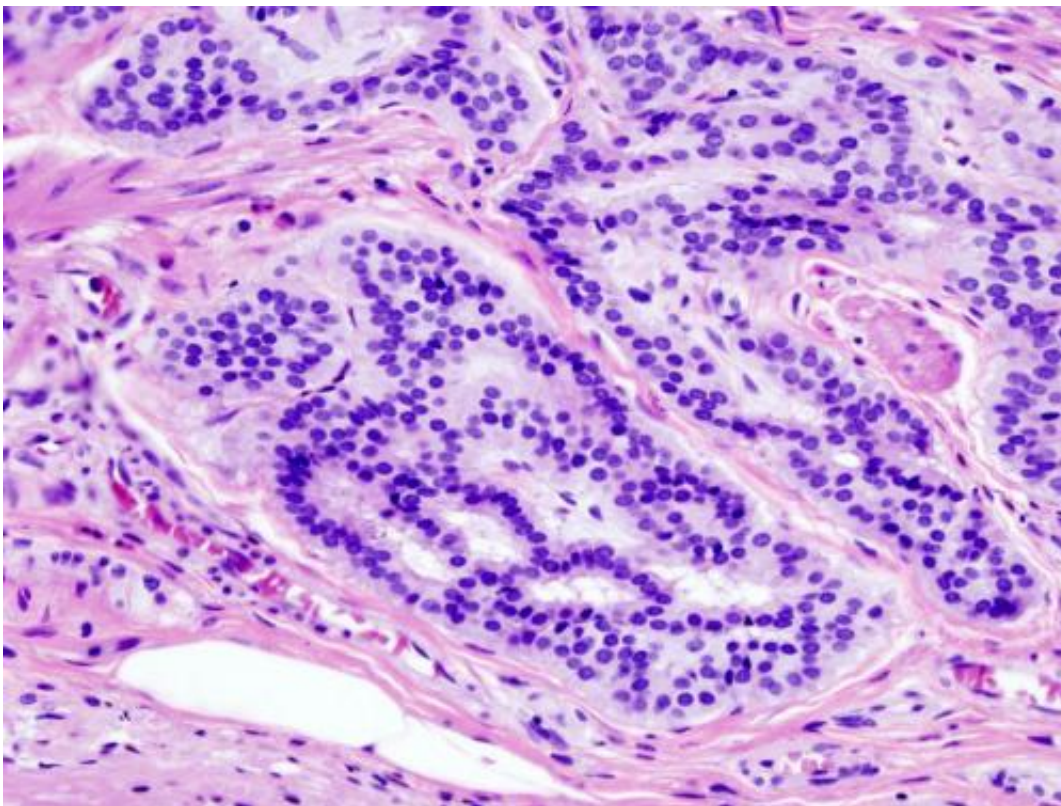


# Average-risk individuals may prefer stool-based test over colonoscopy for cancer screening

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Cancer—Histopathologic image of colonic carcinoid. Credit: Wikipedia/CC BY-SA 3.0

When given a choice, most individuals with an average risk of colorectal cancer said they would prefer a stool-based screening test for colorectal

cancer over colonoscopy, the method most often recommended by health care providers, according to results published in *Cancer Prevention Research*, a journal of the American Association for Cancer Research.

Although [colorectal cancer](#) is the second most frequent cause of cancer-related death in the United States, about one-third of eligible American adults have never completed a colorectal cancer screening [test](#), explained lead author Xuan Zhu, Ph.D., senior health services analyst at the Mayo Clinic Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery. Zhu added that colorectal cancer screening is particularly underutilized by individuals experiencing socioeconomic disadvantages, racial and ethnic minorities, and certain age groups.

The U.S. Preventive Services Task Force (USPSTF) recommends several colorectal cancer screening methods for adults ages 50 to 75 with an average risk for this disease, and the USPSTF draft guideline update released in October 2020 recommends lowering the age of screening initiation to 45. The three most common tests are an annual fecal immunochemical test or fecal occult blood test (FIT/FOBT) that detects blood in the stool; the multitarget stool DNA (mt-sDNA) test (Cologuard), completed every three years, which detects altered DNA from cancer cells, precancerous polyps, or blood in the stool; and a colonoscopy every 10 years, which involves a gastroenterologist examining the colon with a camera and removing any precancerous polyps while a patient is under sedation.

"Previous research has shown that fewer patients complete colorectal cancer screening when only colonoscopy is recommended compared to when stool-based options are also recommended," said Zhu.

In this study, Zhu and colleagues evaluated patient preferences for colorectal cancer screening through a survey conducted in collaboration

with the National Opinion Research Center at the University of Chicago. The survey included short descriptions of FIT/FOBT, mt-sDNA, and colonoscopy, and asked a nationally representative sample of adults ages 40 to 75 to choose between two options presented at a time. A total of 1,595 respondents completed the survey. The researchers focused their analysis on a subgroup of 1,062 respondents aged 45 to 75 with an average risk of colorectal cancer.

When presented with a choice, 66 percent of respondents said they preferred mt-sDNA over colonoscopy, and 61 percent said they preferred FIT/FOBT over colonoscopy. When asked to choose between the two stool-based options, 67 percent indicated a preference for mt-sDNA over FIT/FOBT.

The investigators also examined differences in patient preferences across sociodemographic characteristics, access to health care, awareness of colorectal cancer screening, and prior experience completing a test. While mt-sDNA was preferred over colonoscopy for all age groups examined, a larger proportion of older adults (ages 65 to 75 years) said they preferred colonoscopy compared to those in younger [age groups](#) (ages 45 to 54 years).

Similarly, the preference for mt-sDNA over colonoscopy was higher among non-Hispanic white individuals compared with non-Hispanic Black and Hispanic individuals. Half of Hispanic and non-Hispanic Black respondents preferred stool-based tests over colonoscopy, with a preference for mt-sDNA over FIT/FOBT. Zhu said the observed differences among age and racial/ethnic groups might have reflected variations in preferences or disparities in access to information about newer testing methods.

Respondents without insurance were 2.5 times more likely to prefer less expensive stool-based tests over colonoscopy. The overall awareness of

stool-based tests was about 60 percent, compared to 90 percent for colonoscopy, indicating that there is an opportunity to improve patient education about stool-based options, Zhu noted. Study participants who were aware of stool-based tests were two times more likely to prefer mt-sDNA over FIT/FOBT, and those who had previously had a stool-based test were 2.8 times more likely to choose FIT/FOBT over colonoscopy. By contrast, those who had previously had a colonoscopy were less than half as likely to prefer a stool-based test over colonoscopy and those who had a provider recommend colonoscopy in the past 12 months were 40 percent less likely to prefer mt-sDNA over colonoscopy.

"The best colorectal cancer screening test is the one that patients are most likely to complete," Zhu said.

The findings highlight the importance of patient education about available screening options and taking patients' needs, preferences, and values into account in shared decision-making discussions to increase colorectal cancer screening rates, Zhu added. "Providing patients with as-needed navigation support, from initiation of screening to completion of a [colonoscopy](#) after stool-based tests show abnormal results may increase [screening](#) completion and adherence."

Limitations of this study include the observational design, meaning that causal relationships cannot be inferred, the reliance on self-reported data rather than objective measures, and limiting the scope of the study to the three colorectal [cancer screening tests](#) most commonly recommended by [health care providers](#).

**More information:** *Cancer Prevention Research* (2021). [DOI: 10.1158/1940-6207.CAPR-20-0524](https://doi.org/10.1158/1940-6207.CAPR-20-0524)

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