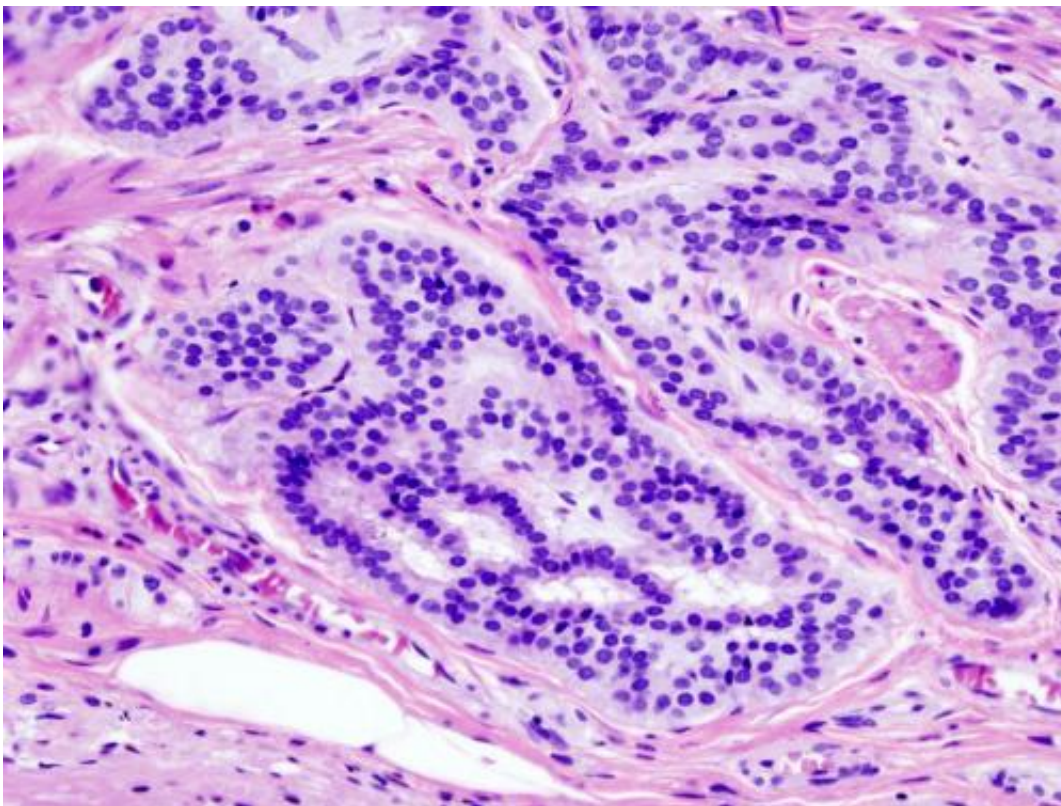


Colonoscopy-screening does not prevent colorectal cancer as well as previously assumed

October 10 2022, by Mathilde Coraline, Aarvold Bakke



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

On October 10 the world's first randomized study on using colonoscopy-screening to prevent colorectal cancer was presented during the 2022

United European Gastroenterology Week in Vienna.

The full study was also published in *New England Journal of Medicine*.

"Colonoscopy unfortunately is not a miracle cure for colorectal [cancer](#). According to our study, it probably is not better than the fecal samples," says Michael Bretthauer, professor at the University of Oslo and senior physician at Oslo University Hospital.

Previously, experts have assumed that the effect of using colonoscopy to detect colorectal cancer is higher than using fecal samples. Fecal samples are used in screening programs all over the world today. Researchers have assumed that up to 9 out of 10 colorectal cancer cases can be prevented using colonoscopy. With [fecal samples](#) the same is assumed to be 2–3 out of 10 cases. In the NordICC-study the researchers wanted to see if colonoscopy-screening actually can help prevent colorectal cancer.

In the study 1.2% of the people who were not randomized for colonoscopy-screening got colorectal cancer after 10 years, compared to 0.98% in the group who was offered screening.

"This means that new cases of colorectal cancer were reduced by 18% among the participants who were offered colonoscopy-screening," Bretthauer says.

The study is lead by Bretthauer and colleagues in the research group Clinical Effectiveness Research (uio.no) at the University of Oslo and Oslo University Hospital. The study is named NordICC, Nordic-European Initiative on Colorectal Cancer (uio.no).

The researchers followed 95,000 participants from four European countries over more than 10 years

The study includes 95,000 participants from Norway, Sweden, Poland and the Netherlands. It is one of the largest randomized studies ever conducted.

Healthy people between the age of 55 and 64 was randomized into two groups: One group was offered one screening with colonoscopy, the other was not offered screening at all. All the participants in the study were followed for over 10 years, to see if colonoscopy prevents colorectal cancer.

In Norway, screening centers were created at Sørlandet Hospital in Kristiansand and Arendal, which carried out thousands of colonoscopies for the study between 2009 and 2014.

Authorities should take the results from the study into consideration when forming Norway's new screening program

The mortality rate for colorectal cancer is generally low in the NordICC-study. Only 3 out of 1,000 died from the disease during the 10 years the researchers followed the participants, regardless of if they were offered screening or not. There was no significant decrease in the mortality rate for the screening group, compared to the group who was not offered screening.

"We are happy to see that the mortality rate is generally low in the study. The numbers are lower than expected when we started the study," Bretthauer says.

The main reason for the low mortality rates is that the [treatment options](#) for colorectal cancer have become noticeably better the past 10 years. This makes colonoscopy-screening less effective to prevent patients

from dying from colorectal cancer.

"This can mean that introducing screening with colonoscopy as a part of the [colorectal cancer](#) screening program in Norway can be less effective than previously assumed. Researchers and authorities should now discuss how the program should proceed from here, taking the results from the NordICC-study into consideration," Bretthauer says.

The researchers will follow the participants in the study the upcoming years, to see if the effect of [screening](#) gets better with time. The next report from the study is planned published in two years.

More information: Michael Bretthauer et al, Effect of Colonoscopy Screening on Risks of Colorectal Cancer and Related Death, *New England Journal of Medicine* (2022). [DOI: 10.1056/NEJMoa2208375](https://doi.org/10.1056/NEJMoa2208375)

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