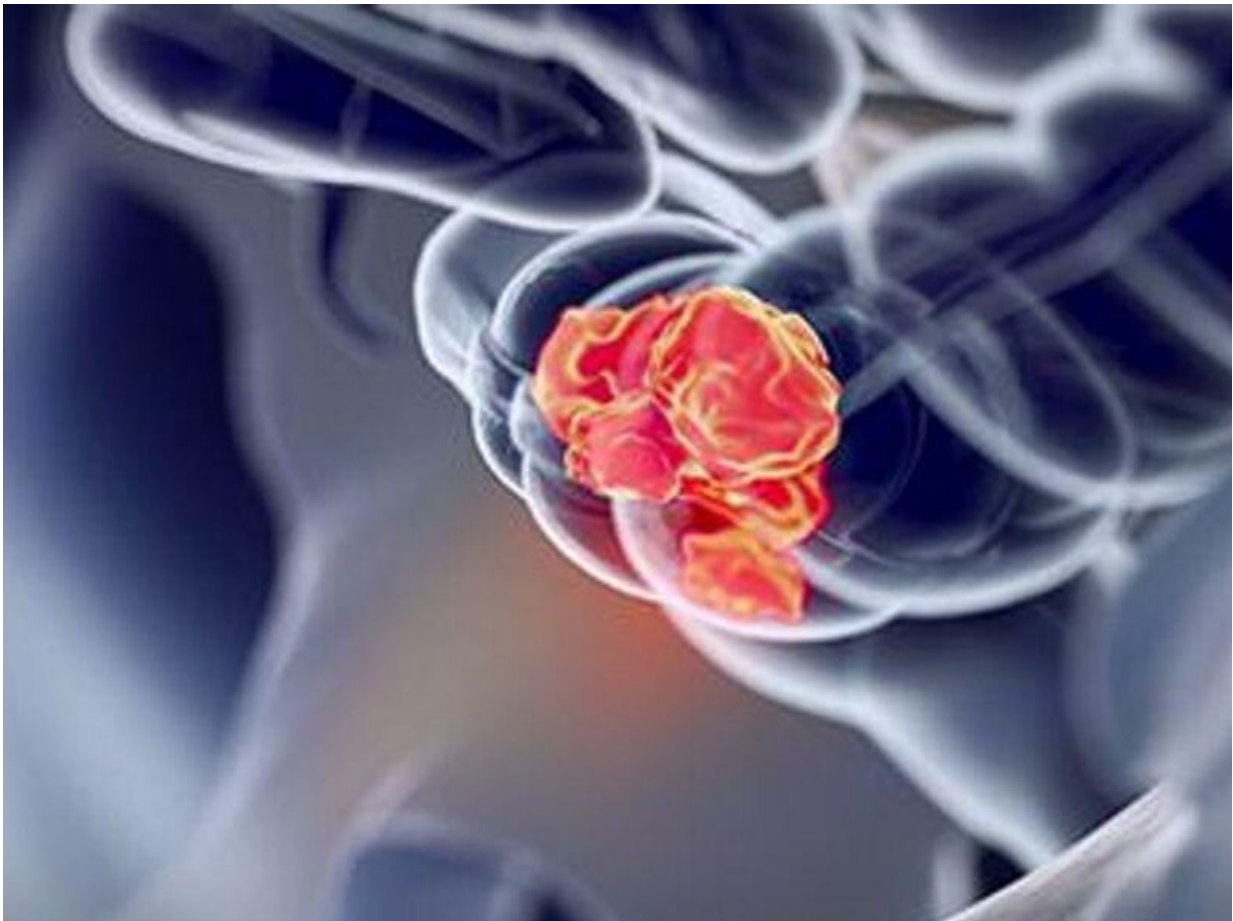


Model with lifestyle, genetic factors can predict early-onset colorectal cancer

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(HealthDay)—A model incorporating lifestyle and genetic factors can

predict the risk for early-onset colorectal cancer (CRC), according to a study published online Jan. 13 in the *Journal of the National Cancer Institute*.

Alexi N. Archambault, Ph.D., M.P.H., from the New York University School of Medicine in New York City, and colleagues developed risk prediction models for early-onset CRC incorporating an environmental risk score (ERS), which included 16 lifestyle and [environmental factors](#), and a [polygenic risk score](#) (PRS), comprising 141 variants. The risks for early-onset CRC were assessed in 3,486 cases and 3,890 controls aged younger than 50 years.

The researchers found that increasing ERS and PRS values were associated with increasing relative risks for early-onset CRC (odds ratios per standard deviation of ERS and PRS, 1.14 and 1.59, respectively); both contributed to case-control discrimination (area under the curve, 0.631). Among those scoring at the 90th percentile for both risk scores, an excess of 26 and 21 cases would be expected per 10,000 men and women, respectively, based on absolute risks.

"Our ultimate goal is to have a predictive test for all people to gauge when they, based on their own genetic and personal health factors, need to start routine screening for colorectal cancer," a coauthor said in a statement. "Physicians, ideally, need a tool that can be used long before early warning signs appear, such as abdominal pain, low blood counts, and rectal bleeding."

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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