

Inflammatory bowel disease in childhood associated with increased risk of cancer

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Children who develop inflammatory bowel disease (ulcerative colitis or Crohn's disease) run a higher risk of cancer, both in childhood and later in life, a study from Karolinska Institutet published in the *BMJ* reports.

Adulthood onset inflammatory bowel diseases such as [ulcerative colitis](#) and Crohn's disease have been associated with an increased risk of bowel cancer. However, there have been no studies showing how the [cancer risk](#) is affected by childhood onset of the disease and whether it changes over time.

Using data from the Swedish National Patient Register, researchers at Karolinska Institutet have now compared the incidence of cancer in 9,405 individuals who were diagnosed with [inflammatory bowel disease](#) as children, with 92,870 individuals from the general population.

Doubled cancer risk

Their results show that individuals who developed inflammatory bowel disease before the age of 18 had twice the cancer risk during childhood and adolescence as well as adulthood, compared with people who did not have such a diagnosis. The largest increase in risk was observed for [bowel cancer](#), but there was also an increase in risk for other forms of cancer, such as blood and skin cancers.

"We believe that the main cause is the chronic inflammation, which we know to be a driving factor for many different cancer types," says

principal investigator Ola Olén at Karolinska Institutet's Clinical Epidemiology Unit at the Department of Medicine, Solna. "Early onset means that the body is exposed to inflammation for a longer time."

The study participants were diagnosed with inflammatory bowel disease between 1964 and 2014.

"The treatment for inflammatory bowel disease improved considerably over these years, thanks in part to the introduction of new immunomodulating drugs, but unfortunately we can't see that the relative incidence of cancer simultaneously declined," says Dr Olén.

Important to attend examinations

Adult patients with inflammatory bowel disease are regularly invited to colonoscopy screenings, which can detect the presence of any cancer in the gut. The researchers believe that the knowledge of the cancer risk associated with the [early onset](#) of inflammatory bowel disease has to be factored into decisions on colonoscopy screening for children and adolescents, from both a healthcare and a patient perspective."

"Don't forget that even if relative risks are high, the absolute risks are much more modest, and during childhood absolute risks are extremely small. Most young people don't get cancer, and some of these forms of tumours are extremely rare," explains Dr Olén. "But it's probably important for individuals who develop inflammatory bowel disease in [childhood](#) to make sure to attend the examinations they're invited to, especially those who have other strong risk factors for cancer, such as a family history of early [cancer](#)."

More information: O Olén et al. Childhood onset inflammatory bowel disease and risk of cancer: a Swedish nationwide cohort study 1964-2014, *BMJ* (2017). [DOI: 10.1136/bmj.j3951](https://doi.org/10.1136/bmj.j3951)

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