

Most survivors of childhood cancer don't get the tests needed to detect serious long-term adverse effects, finds study

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Surviving childhood cancer does not always mean a clean bill of health, as the treatments that eradicate those cancers can put adult survivors at

risk of new cancers and other serious health problems. Despite the existence of surveillance guidelines that recommend screening for adult cancers and other "late effects" of cancer therapy, childhood cancer survivors (CCS) are rarely up to date for recommended tests, according to a large study published in *CMAJ* (*Canadian Medical Association Journal*).

As many as 80% of [childhood cancer survivors](#) will develop a serious or life-threatening effect, such as cardiomyopathy (heart disease) and colorectal and [breast cancer](#), from treatment by age 45 years. The risk of [colorectal cancer](#) is two- to three-times higher than for the general population, and the risk of breast cancer in females who underwent chest radiation is similar to that of people with a BRCA mutation.

"Surveillance for late effects in adult survivors of childhood cancer is poor, placing many survivors at risk for preventable harm," writes Dr. Jennifer Shuldiner, scientist, Women's College Hospital, Toronto, Ontario, with co-authors.

In this study, researchers used Ontario provincial data on 3,241 CCS who had been diagnosed with cancer between 1984 and 2014. They studied CCS who were at elevated risk of breast, colorectal cancer, or cardiomyopathy because of radiation treatments or specific chemotherapies. Of the total, 2,806 (87%) were at risk for at least one of these late effects, 345 (11%) were at risk for two and 90 (3%) were at risk for three late effects.

The North American Children's Oncology Group has developed [long-term follow up guidelines](#) (there have been six versions) to monitor adults who had cancer as children.

However, the number of survivors who were following the [screening recommendations](#) was low, with 13%, 6%, and 53% adherent to

colorectal cancer, breast cancer, and cardiomyopathy screening recommendations, respectively. Those who were older at diagnosis were more likely to follow the cancer screening guidelines, whereas younger age at diagnosis was associated only with higher likelihood of following screening guidance for cardiomyopathy.

A lack of awareness of the negative long-term effects of cancer treatments may underlie these low rates. Even in the case of survivors who attended specialized cancer [survivor](#) clinics, screening adherence rates were low.

"Earlier studies found that a lack of knowledge about late effects risks and surveillance recommendations among survivors, [family physicians](#), and specialists are substantial barriers to adherence," write the authors.

Screening recommendations need to address barriers to completing screening to ensure that CCS continue to lead healthy lives as adults.

"The challenge of ensuring that CCS receive the risk-adapted health care and surveillance testing they need to maximize their long-term health and quality of life is an area of intense focus," adds Dr. Paul Nathan, director of the AfterCare Program and oncologist in the Division of Hematology/Oncology at SickKids.

"Building on these findings, we will be launching a province-wide study to determine if periodic surveillance reminders for CCS and their family doctors will improve completion of these potentially life-saving tests."

The findings demonstrate a need to support patients and primary care clinicians to improve adherence to surveillance guidelines among CCS. The authors note this responsibility must be shared between the cancer care systems, particularly the provincial pediatric cancer survivor network, and the patients themselves, through advocacy and other

survivor support groups.

More information: Longitudinal adherence to surveillance for late effects of cancer treatment: a population-based study of adult survivors of childhood cancer, *Canadian Medical Association Journal* (2024). [DOI: 10.1503/cmaj.231358](https://doi.org/10.1503/cmaj.231358) , www.cmaj.ca/lookup/doi/10.1503/cmaj.231358

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