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Severe Health Issues Lay Ahead for Many Young Cancer Survivors

— More than 20 years after diagnosis, more than a third developed a serious health condition

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Compared with the general population, young cancer survivors were far more likely to develop severe and life-threatening health conditions in later life, and faced a significantly higher risk of death, data from a large retrospective study indicated.

By age 45, early-adolescent and young adult cancer survivors had a 39% likelihood of developing a severe health condition compared with only 12% for siblings of the same age, reported Tara Henderson, MD, MPH, of University of Chicago Comer Children's Hospital, and colleagues.

Childhood cancer survivors meanwhile had a 56% chance of suffering from a severe health condition by this age, according to findings from the Childhood Cancer Survivor Study, as detailed in the [Lancet Oncology](#).

The standardized mortality ratio (SMR) for all-cause mortality for early-adolescent and young adult survivors was 5.9, meaning the risk for death in this population of survivors was almost six times higher than the general population. SMR for all-cause mortality was even higher at 6.2 for childhood cancer survivors.

"This analysis confirms the substantial burden of long-term health complications in the youngest subset of adolescents and young adults, can be used to inform current therapies for this population, and underscores the need for targeted interventions to ensure life-

long, risk-based follow-up care for this population," Henderson and colleagues wrote.

The Childhood Cancer Survivor Study included data on 5-year cancer survivors from 5,804 early-adolescent and young adults ages 15 to 20 at diagnosis who were treated at 27 institutions in the U.S. and Canada from 1970 to 1999. Outcomes among these survivors were compared with 5,804 childhood survivors (<15 years) of the same cancers and 5,069 siblings of similar ages.

Individuals in the older age group had a more than four times greater risk for developing severe and disabling, life-threatening, or fatal health conditions versus siblings of the same age (HR 4.2, 95% CI 3.7-4.8) while childhood cancer survivors had a more than five times greater risk (HR 5.6, 95% CI 4.9-6.3).

Starting at 20 years after diagnosis, early-adolescent and young adult survivors did have lower SMRs for death from health-related conditions -- excluding recurrence or progression of their primary cancer -- compared with childhood cancer survivors (SMR 4.8 vs 6.8). However, early-adolescent and young adult survivors had a higher risk for death due to recurrence or progression of their primary cancer than did childhood survivors (HR 1.6, 95% CI 1.4-1.9).

In an [editorial](#) that accompanied the study, Päivi Lähteenmäki, MD, of Turku University and University Hospital in Finland, agreed that these data support the need for long-term follow-up in young adult cancer survivors. However, she also pointed out that these results may "not be fully generalizable to patients treated today, who might be on different treatment regimens to those treated in previous decades."

Additionally, both the study authors and Lähteenmäki pointed out that the study did not include survivors of gonadal tumors, melanomas, and thyroid cancer, which account for almost 40% of cancers diagnosed among those ages 15 to 20. Patients in the study had cancers that included leukemia, lymphoma, central nervous system tumors, neuroblastoma, Wilms tumor, soft-tissue sarcomas, and bone cancer.

"More prospectively collected objective data focusing on survivors of adolescent and young adult cancers are needed," Lähteenmäki wrote. "Accurately characterizing individuals at high risk who would benefit from a tailored screening program is most important. In the future, identifying underlying genetic or molecular factors that might define patients at high risk for late sequelae would help planning approaches to survivorship."

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Lähteenmäki had no conflicts of interest.

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Secondary Source

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