

Survivors of childhood Hodgkin lymphoma face high long-term risk of solid cancers

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New research refines existing evidence that survivors of childhood Hodgkin lymphoma face an elevated risk of developing various types of solid tumors many years later. In addition, certain subgroups of patients have an especially high risk. Published early online in *Cancer*, a peer-

reviewed journal of the American Cancer Society, the findings may help refine guidelines for cancer screening in Hodgkin lymphoma survivors.

It's known that survivors of Hodgkin lymphoma—a [cancer](#) that starts in cells called lymphocytes—during childhood have an increased risk of developing additional forms of cancer, including solid cancers, but the magnitude of this risk over the long term is unknown.

To investigate, Smita Bhatia, MD, MPH, of the University of Alabama at Birmingham, and her colleagues analyzed information on 1,136 patients who were diagnosed with Hodgkin lymphoma before age 17 years between 1955 and 1986. Over a median length of follow-up of 26.6 years, 162 individuals developed solid cancers. The researchers determined that the survivors had a 14-fold increased risk of developing cancer compared with the general population. They also noted that the cumulative incidence of any solid cancer was 26.4 percent at 40 years after a Hodgkin lymphoma diagnosis.

Risk factors for breast cancer among females were Hodgkin lymphoma diagnosis between 10 and 16 years of age and chest radiation. Males treated with chest radiation before 10 years of age were at highest risk for lung cancer. Hodgkin lymphoma survivors treated with abdominal/pelvic radiation and high-dose alkylating agents were at highest risk for [colorectal cancer](#), and females exposed to neck radiation before 10 years of age were at highest risk for thyroid cancer. By age 50 years, the cumulative incidence of breast, lung, colorectal, and thyroid cancer was 45.3 percent, 4.2 percent, 9.5 percent, and 17.3 percent, respectively, among those at highest risk.

"This large multi-institutional, international cohort of childhood Hodgkin lymphoma allowed us to determine the risk of new solid cancers such as breast cancer, colorectal, cancer and [thyroid cancer](#)," said Dr. Bhatia. "More importantly, we were able to use host and clinical

characteristics to identify subgroups of Hodgkin lymphoma survivors who were particularly vulnerable to developing these new cancers." She noted that these findings could be useful for developing screening strategies for individual survivors.

"As a physician and a childhood Hodgkin [lymphoma](#) survivor who developed radiation-related [breast cancer](#) 34 years after treatment, I cannot emphasize enough the importance of these data for the long-term care of survivors, as they not only underscore the necessity of lifelong [cancer screening](#) in that population, but also provide a stratification of risk for specific malignancies within subgroups, allowing for a more targeted approach to screening," said Allison Thompson-Graves, MD, who was not involved with the study.

More information: "Risk of Solid Subsequent Malignant Neoplasms after Childhood Hodgkin Lymphoma - Identification of High Risk Populations to Guide Surveillance: A Report from the Late Effects Study Group" *Cancer* (2018). [DOI: 10.1002/cncr.31807](https://doi.org/10.1002/cncr.31807)

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