

After chest radiation, girls at greater risk for early breast cancer: study

June 4 2012



Even those childhood cancer survivors who got low doses should be screened yearly, researchers say.

(HealthDay) -- Girls who receive radiation to the chest to treat childhood cancer, even those getting lower doses, have a high risk of developing breast cancer at a young age, according to a new study.

Researchers from Memorial Sloan-Kettering Cancer Center in New York City said the risk posed by radiation may be as great as that of the BRCA1/2 mutation. Previously, it was thought that only moderate to high doses of radiation raised [breast cancer risk](#), but the new research showed that even those who got low doses face an increased risk and may warrant early screening for the disease.

"While [radiation doses](#) have decreased and techniques have improved, radiation is still an essential part of therapy for many childhood cancers," said the study's lead author, Chaya Moskowitz, an associate member and

associate attending biostatistician at the cancer center, in a news release from the [American Society of Clinical Oncology](#). "The goal is to maximize the cure rates for [childhood cancer](#) while minimizing future health problems," Moskowitz said.

The researchers examined information on 1,200 women in the Childhood Cancer Survivor Study and 4,570 women who are first-degree relatives of participants in the Women's Environmental Cancer and Radiation Epidemiology Study, which involved women diagnosed with breast cancer who survived at least one year after diagnosis.

Among the [childhood cancer survivors](#), 24 percent were diagnosed with breast cancer by the time they were 50 years old. Moreover, 30 percent who survived Hodgkin's lymphoma developed breast cancer. In comparison, the incidence of breast cancer by age 50 was 31 percent among the carriers of a [BRCA1 mutation](#).

The researchers said the roughly 50,000 women in the United States who were treated with higher doses of radiation when they were younger should get an annual mammogram and breast MRI either by the time they are 25 years old or eight years after their [radiation therapy](#).

Another 7,000 to 9,000 women received lower-dose radiation to treat childhood cancer, the researchers said. "Our results suggest that young women treated with lower doses of radiation who are not currently being screened also have an elevated risk of breast cancer and might benefit from a similar screening strategy," Moskowitz added.

Treatment with a lower dose of chest radiation reduced the incidence of [breast cancer](#) to 7 percent by the age of 40 compared to 12 percent for the women treated with higher doses of chest radiation, the researchers found.

The study was scheduled for presentation Monday at the annual meeting of the American Society of Clinical Oncology in Chicago.

Data and conclusions presented at medical meetings should be considered preliminary until published in a peer-reviewed medical journal.

More information:

The U.S. National Cancer Institute provides more information on [breast cancer risk](#).

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Citation: After chest radiation, girls at greater risk for early breast cancer: study (2012, June 4) retrieved 20 April 2024 from <https://medicalxpress.com/news/2012-06-chest-girls-greater-early-breast.html>

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