

General Health Status of Long-Term Childhood Cancer Survivors: A Report from the Childhood Cancer Survivor Study (CCSS).

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Purpose: To assess health status of childhood cancer survivors and determine factors associated with compromised health status.

Methods: The CCSS is a retrospective cohort study of childhood cancers diagnosed between 1970 and 1986, under age 21, and surviving 5+ years. Multivariate analyses were used to determine the odds ratio (OR) and 95% confidence Intervals (CI) associated with health outcomes reported by self-administered questionnaire.

Results: Among the 9434 survivors (age range 18-48 years) included in this analysis, 53% were male and 88% Caucasian. Health status was relatively good among the cohort; only 11% reported fair/poor general health. Older age (>40 years) at the time of interview was associated with more general health impairment (OR =2.0, CI=1.2-3.1) and activity limitations (OR =2.0, CI=1.3-3.1) than younger cases (ages 18-24). Compared to males, females had more mental health impairment (OR =1.9, CI=1.6-2.2), functional impairment (OR =1.3, CI=1.1-1.6), higher anxiety levels (OR =1.7, CI=1.5-1.9) and activity limitations (OR =1.8, CI=1.5-2.1). Functional impairment and activity limitation were more common in survivors of CNS (OR =4.4, CI=3.4-5.6; OR =1.7, CI=1.3-2.1 respectively) and bone tumors (OR =2.4, CI=1.8-3.1; OR =3.8, CI=3.0-4.9, respectively), whereas higher levels of anxiety and pain were observed in survivors of STS (OR =1.5, CI=1.1-1.9; OR =1.9, CI=1.4-2.4, respectively) and bone tumors (OR =1.3, CI=1.1-1.7; OR =3.0, CI=2.8-3.8, respectively). Income and educational status were inversely correlated with health outcomes.

Conclusion: The majority of long-term childhood cancer survivors enjoy good health outcomes. The clinical features of survivors with adverse health outcomes can be used to identify patients who deserve special attention during long-term follow-up.