

Cancer patients who are separated when diagnosed have worse survival rates

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Among unmarried cancer patients, those who are separated at the time of diagnosis do not live as long as widowed, divorced, and never married patients. That is the conclusion of a new study to be published in the November 1, 2009 issue of *Cancer*, a peer-reviewed journal of the American Cancer Society. The authors of the study say its results suggest that the stress associated with marital separation may compromise an individual's immune system and lead to a greater susceptibility to cancer.

Research has shown that personal relationships have a significant role in physical health—specifically that good relationships are beneficial and poor relationships are deleterious. Also, many studies of cancer prognosis have found that patients who are married live longer than those who are single. However, little information is available regarding differences in survival among the various types of people who are unmarried.

To look for trends in cancer survival among patients who are separated, divorced, widowed, and never married, researchers led by Gwen Sprehn, Ph.D., of the Indiana University School of Medicine in Indianapolis analyzed data from the Surveillance [Epidemiology](#) and End Results (SEER) database, a population-based cancer registry in the United States.

The researchers assessed the 5 and 10 year survival rates of 3.79 million patients diagnosed with cancer between 1973 and 2004. They found that married patients had the highest 5 and 10 year survival rates, at 63.3

percent and 57.5 percent respectively. At the other end of the spectrum, separation carried the poorest survival outcome. Specifically, the 5 and 10 year survival rates for separated patients were 45.4 percent and 36.8 percent respectively. The 5 and 10 year survival rates of widowed patients were the next lowest, at 47.2 percent and 40.9 percent respectively; for divorced patients, the respective [survival rates](#) were 52.4 percent and 45.6 percent; and for never married patients, they were 57.3 percent and 51.7 percent.

The authors hypothesized that the stress of separation may compromise the immune system and thus create a greater vulnerability to cancer. While additional research is needed, the researchers say certain interventions might help patients today. For example, psychological interventions to reduce stress may impact the [immune system](#) and improve survival.

"Patients who are going through separation at the time of diagnosis may be a particularly vulnerable population for whom intervention could be prioritized," says Sprehn. "Identification of relationship-related stress at time of diagnosis could lead to early interventions which might favorably impact survival. Ideally, future research will study marital status in more detail over time and also address individual differences in genetic profile and biomarkers related to stress, immune, and cancer pathways in order to determine mechanisms which might underlie this possible critical period for cancer pathogenesis."

More information: "Decreased cancer survival in individuals separated at time of diagnosis: critical period for cancer pathophysiology?" Gwen C. Sprehn, Joanna E. Chambers, Andrew J. Saykin, Andre Konski, and Peter A. S. Johnstone. *Cancer*; Published Online: August 24, 2009 ([DOI: 10.1002/cncr.24547](#)); Print Issue Date: November 1, 2009.

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