

# Study Links Social Isolation to Higher Risk of Death



A large American Cancer Society study links social isolation with a higher risk of death from all causes combined and heart disease for all races studied, and with increased cancer mortality in white men and women. The study, [appearing in the American Journal of Epidemiology](#), says addressing social isolation

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holds promise if studies show interventions are effective, as they could be relatively simple and could influence other risk factors, as social isolation is also associated with hypertension, inflammation, physical inactivity, smoking, and other health risks.

Social isolation has been linked to higher mortality in studies comprising mostly white adults, yet associations among black adults are unclear. The new prospective cohort study, led by the American Cancer Society’s [Kassandra Alcaraz, PhD, MPH](#), evaluated whether associations of social isolation with all-cause, cardiovascular disease and cancer mortality differed by race and sex. The study analyzed data from 580,182 adults enrolled into Cancer Prevention Study-II in 1982/1983, who were followed for mortality through 2012.

Investigators weighted several standard components of social isolation –marital status, frequency of religious service attendance and club meetings/group activities, and number of close friends/relatives—giving a score of 0 (least isolated) or 1 (most isolated) on each of the factors for a total on a 5-point isolation scale. For instance, someone who was married, frequently attended religious services, attended club meetings and/or group activities, and had seven or more close friends was given an isolation score of 0. Someone with none of those would have an isolation score of 4.

They found overall, race seemed to be a stronger predictor of social isolation than sex; white men and white women were more likely to be in the least isolated category than black men and women. In the full sample, a statistically significant, positive dose-response relationship was found between social isolation and all-cause mortality risk over the 30-year follow-up period. However, associations were significantly stronger in the first 15 years of follow up.

Social isolation score was positively associated with heart disease (CVD) mortality in all subgroups. Although there was a positive association between social isolation score and cancer mortality among white men and white women, there was no association between social isolation score and cancer mortality among black men or black women. Each social isolation component was associated with all-cause and CVD mortality, and all but one (having fewer close friends/relatives) were associated with cancer mortality.

“[C]urrent findings indicate that a composite measure of social isolation is a robust predictor of mortality risk among men, women, blacks, and whites,” write the authors. “Compared with the

least isolated, the most socially isolated black men and women had a more than 2-fold higher risk of death from any cause, and white men and women had 60% and 84% greater risks of death, respectfully.”

The authors say as the era of precision medicine develops, several influences on health, including social factors, are expected to become more important to clinical care. Addressing social isolation is aligned with this more holistic approach, they write, saying: “Lack of interpersonal connections seems particularly detrimental.”

The authors point to a recent meta-analysis that identified social isolation as an independent risk factor for death on par with well-established mortality risk factors such as physical inactivity, obesity, and lack of healthcare access. “Persistent challenges in intervening on modifiable clinical risk factors such as obesity make approaches based on social isolation promising if efficacy can be established,” they conclude.

Article: Alcaraz KI, Eddens KS, Blase JL, et al. Social isolation and mortality in US black and white men and women [published online ahead of print November 16, 2018]. *Am J Epidemiol.* (doi: 10.1093/aje/kwy231)

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