

# Heart Disease Risk Linked With Spouses' Social Support

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Matters of the heart can influence actual heart health, according to new research. A study from researchers at the University of Utah shows that the ways in which your spouse is supportive — and how you support your spouse — can actually have significant bearing on your overall cardiovascular health.

The findings reveal that when both partners perceive the support they get from each other as ambivalent — that is, sometimes helpful and sometimes upsetting— each partner's levels of coronary artery calcification (CAC) tend to be particularly high.

These results are published in [\*Psychological Science\*](#), a journal of the [Association for Psychological Science](#).

“There is a large body of epidemiological research suggesting that our relationships are predictors of mortality rates, especially from cardiovascular disease,” explains Bert Uchino, psychological scientist of the University of Utah. “But most prior work has ignored the fact that many relationships are characterized by both positive and negative aspects – in other words, ambivalence.”

Uchino and his colleagues — Timothy Smith and Cynthia Berg — were interested in exploring how this complexity in relationships predicts cardiovascular health.

The researchers instructed 136 older couples (63 years old, on average) to fill out questionnaires measuring their overall marriage quality, as well as their perceived support from their spouse. Specifically, they indicated how helpful or how upsetting their spouse was during times when they needed support, advice, or a favor. The researchers found that about 30% of individuals viewed their partner as delivering positive support, whereas 70% viewed their partner as ambivalent – sometimes helpful and sometimes upsetting.

Using a CT scanner to check for overall calcification in the participants' coronary arteries, the researchers found that CAC levels were highest when *both* partners in the relationship viewed each other as ambivalent. When only one partner felt this way, the risk was significantly less. The effect was independent of gender, meaning that these associations were comparable for husbands and wives.

Given that the participants were married for an average of 36 years, one might predict that overall marital satisfaction would have a significant impact on this cardiovascular risk factor – but the researchers didn't find that to be the case. It was the positive and negative aspects of lending support that were most significant in predicting cardiovascular health, suggesting that these factors exert their effects independently of overall marital quality.

It's not exactly clear why this is the case, but the researchers hypothesize that when both partners perceive each other as a source of ambivalence, it changes their behavior toward one another.

“The findings suggest that couples who have more ambivalent views of each other actively interact or process relationship information in ways that increase their stress or undermine the supportive potential in the relationship,” says Uchino. “This, in turn, may influence their cardiovascular disease risk.”

While Uchino and colleagues can’t be certain that mutual ambivalence *causes* higher levels of CAC, since the study didn’t follow participants over time, the results do provide the initial evidence necessary for longitudinal studies on relationship support and cardiovascular health.

Going forward, the researchers are interested in exploring the actual biological, social, and behavioral pathways linking relationship ambivalence and CAC levels, as well as ways to reduce ambivalence in important social ties.