

People who skip meals: are they better off?

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Foregoing food for a day each month stood out among other religious practices in members of the Church of Jesus Christ of Latter-Day Saints (LDS or Mormons), who have lower rates of heart disease than other Americans, researchers reported at the American Heart Association's Scientific Sessions 2007.

"People who fast seem to receive a heart-protective benefit, and this appeared to also hold true in non-LDS people who fast as part of a health-conscious lifestyle," said Benjamin D. Horne, Ph.D., M.P.H., study author and director of cardiovascular and genetic epidemiology at Intermountain Medical Center and adjunct assistant professor of biomedical informatics at the University of Utah in Salt Lake City.

In the 1970s, scientists recognized that Latter-Day Saints (LDS) in Utah are less likely to die of heart disease than other Utah residents and Americans overall. The religious prohibition against tobacco use is usually credited for the health benefit, but researchers wondered whether other religious teachings also may be important.

Researchers first examined the records of the Intermountain Heart Collaborative Study registry comprised of patients who had undergone coronary angiography, an X-ray examination of the blood vessels of the heart to look for blockages, between 1994 and 2002. Of those patients, 4,629 men and women, average age 64, could clearly be diagnosed either with coronary artery disease (CAD) – which is at least 70 percent narrowing or blockage detected in at least one artery, or as free of significant CAD – less than 10 percent narrowing or blockage. As

expected, CAD was less prevalent in patients who identified their religious preference as LDS than those who stated another or no religious preference. Sixty-one percent of LDS members had CAD versus 66 percent of others.

“When we adjusted for smoking, or looked just at the nonsmokers, we still found a lower rate of CAD in people having an LDS religious preference,” Horne said. “We thought this was very interesting, so we devised a survey about other behaviors associated with LDS that might bring a health benefit.”

In the second part of the study, 515 patients (average age 64) who underwent coronary angiography between 2004 and 2006, completed a survey that included religious preference as well as several specific practices encouraged by the LDS church: not smoking; fasting (abstaining from food and drink for two consecutive meals); not drinking tea, coffee or alcohol; observing a weekly day of rest; attending worship services; and donating time, goods or money to charity.

Of this group, those who fasted were significantly less likely to be diagnosed with CAD (59 percent had 70 percent or greater blockage) than those who did not fast (67 percent had 70 percent or greater blockage).

“Fasting was the strongest predictor of lower heart disease risk in the people we surveyed. About 8 percent of the people who fasted did not express an LDS religious preference, and they also had less coronary disease,” Horne said.

Patients who did not drink tea were also less likely to be diagnosed with CAD, but once fasting was considered the finding wasn’t significant, Horne noted.

Fasting was associated with lower odds of being diagnosed with CAD by 39 percent. When the researchers compared only those diagnosed with CAD with those who had minimal or no coronary disease (less than 10 percent blockage), the impact of fasting was even more striking, with the odds of a CAD diagnosis being lower by 45 percent.

While this doesn't prove that fasting is the cause of having healthier arteries, it does suggest that it is an important, and new, hypothesis.

Horne said this association between fasting and healthy arteries could be due to timing.

“When you abstain from food for 24 hours or so, it reduces the constant exposure of the body to foods and glucose,” he said. “One of the major problems in the development of the metabolic syndrome and the pathway to diabetes is that the insulin-producing beta cells become desensitized. Routine fasting may allow them to resensitize — to reset to a baseline level so they work better.”

The researchers looked separately at people with diabetes, who are not encouraged to skip meals, and found the same association of fasting and healthier arteries in both those with diabetes and those without diabetes. However, this is not sufficient information to suggest that diabetics should skip meals.

“One exciting thing is that the study could be replicated in the general population and in other locations in the United States, including people without an LDS preference who fast for various philosophical or health reasons,” Horne said. “However, it's important to state that this study does not provide evidence diabetics should skip meals.”

The study is limited because it is not a randomized or controlled trial, and it only includes people who had sufficient symptoms to undergo

coronary angiography, the gold standard assessment for CAD. Also, there could be other factors associated with fasting that are the actual causes of the reduced degree of coronary stenosis seen in this study.

Source: American Heart Association

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