

Study findings may explain delayed onset of heart disease in women

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A biological ability to compensate for the body's reduced response to insulin may explain why women typically develop heart disease 10 years later than men, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism* (JCEM).

Insulin is a hormone that takes glucose from the bloodstream and carries it into cells, where it is used for energy. When the body doesn't use insulin properly, a condition known as insulin resistance, it raises the risk a person will develop diabetes and cardiovascular disease.

"Among men and women ages 50 or younger with comparable levels of insulin resistance, our study found women experienced fewer complications than men did," said the study's lead author, Sun H. Kim, MD, MS, of Stanford University School of Medicine. "This ability to deal with the fallout from insulin resistance was no longer present when we examined women who were 51 and older. This gender difference may illuminate the 'female advantage' – a phenomenon where the onset of cardiovascular disease tends to happen a decade later in women than in men."

The cross-sectional study examined insulin resistance and cardiovascular disease risk in 468 women and 354 men. Among participants ages 50 or younger, women had lower blood pressure and fasting blood sugar levels than their male counterparts. In addition, women had lower levels of triglycerides, fats in the blood that can increase the risk of [heart disease](#)

and stroke.

"The findings suggest young women are uniquely equipped to offset the negative effects of insulin resistance," Kim said. "Although there is no difference in the level of [insulin resistance](#) between genders, young women are still able to avoid the worst complications from [insulin resistance](#)."

Kim theorizes this may be a natural form of protection for [women](#) in their reproductive years, but additional research needs to be done in this area.

Provided by The Endocrine Society

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