

Postmenopausal women with higher testosterone levels

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Postmenopausal women who have higher testosterone levels may be at greater risk of heart disease, insulin resistance and the metabolic syndrome compared to women with lower testosterone levels, according to a new study accepted for publication in *The Endocrine Society's Journal of Clinical Endocrinology & Metabolism* (JCEM). This new information is an important step, say researchers, in understanding the role that hormones play in women's health.

"For many years, androgens like [testosterone](#) were thought to play a significant role in men only and to be largely irrelevant in women," said Anne Cappola, MD, of the University of Pennsylvania School of Medicine in Philadelphia. "It is now largely accepted that premenopausal women with polycystic ovary syndrome, a condition in which androgens are elevated, have increased health risks. However, the clinical relevance of testosterone in women over the age of 65 had remained uncertain until this recent study."

In this study, researchers measured levels of testosterone in 344 women, aged 65-98 years. They found that women with the highest testosterone levels — in the top 25 percent of this study group— were three times as likely to have coronary heart disease compared to women with lower testosterone levels. These women were also three times as likely to have a group of metabolic risk factors called the metabolic syndrome compared to women with lower testosterone levels.

The connection between higher levels of testosterone and these health risks may be explained by the researcher's finding of a greater degree of insulin resistance in women with the highest testosterone levels. Insulin resistance is a metabolic disturbance in which the body does not use insulin efficiently and is itself a risk factor for the [metabolic syndrome](#) and [cardiovascular disease](#).

"Because of the observational aspect of this study, we cannot discern if testosterone is a marker or mediator of cardiovascular disease in this population," said Cappola. "Further studies are needed to determine if a causal relationship exists between testosterone and insulin resistance and to provide more insight into the role testosterone plays in the pathogenesis of cardiovascular disease in women."

Source: The Endocrine Society ([news](#) : [web](#))

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