

Sex hormone-binding globulin may be biomarker for CVD risk in men

December 28 2021



(HealthDay)—Men with lower concentrations of total testosterone do

not have an increased risk for cardiovascular events, while lower concentration of sex hormone-binding globulin (SHBG) is associated with a higher incidence of myocardial infarction (MI), according to a study published online Dec. 28 in the *Annals of Internal Medicine*.

Bu B. Yeap, Ph.D., from the University of Western Australia in Perth, and colleagues examined the associations of serum total testosterone and SHBG with incident [cardiovascular events](#) among community-dwelling men ages 40 to 69 years from the U.K. Biobank prospective cohort.

The researchers found that 4.2 percent of the 210,700 men followed for nine years had an incident cardiovascular event. Lower testosterone concentrations (quintile 1 versus 5) were not associated with incident MI, [hemorrhagic stroke](#) (HS), [ischemic stroke](#) (IS), heart failure (HF), or major adverse cardiovascular events (MACE) after adjustment for key variables. The incidence of MACE was significantly lower for men with lower calculated free testosterone values (hazard ratio, 0.90). There were associations observed for a lower SHBG concentration with a higher incidence of MI (hazard ratio, 1.23) and with a lower incidence of IS and HF (hazard ratios, 0.79 and 0.69, respectively); no associations were seen for HS or MACE.

"Men with lower SHBG concentrations have higher risk for MI but [lower risk](#) for HF, indicating a role for SHBG as a biomarker for various cardiovascular risks, independently of total testosterone concentrations," the authors write.

The study was partly funded by Lawley Pharmaceuticals.

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