

Vitamin D, estradiol deficiency have synergistic effect on MetS

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(HealthDay)—For Chinese postmenopausal women, vitamin D (VitD)

and estradiol (E_2) deficiency have a synergistic effect on metabolic syndrome (MetS), according to a study published online June 10 in *Menopause*.

Hui Huang, M.D., from Sun Yat-Sen University in Guangzhou, China, and colleagues examined 616 postmenopausal women from southern China who were not taking estrogen or VitD/calcium supplements in a cross-sectional study. For each participant, serum E_2 and 25-hydroxyvitamin D (25[OH]D) were measured.

The researchers identified a positive correlation between 25(OH)D and E_2 . There was a correlation for higher 25(OH)D with a favorable lipid profile, blood pressure, and glucose level. There was a negative association for E_2 with cholesterol, triglycerides, and blood pressure. After multivariable adjustment, the odds ratio for MetS was 2.19 for VitD-deficient versus VitD-sufficient women. After further adjustment for E_2 levels, this association persisted. Low E_2 increased MetS risk in women with VitD deficiency after stratified analysis by VitD status (odds ratio, 3.49 for the lowest versus highest tertile).

"This study emphasizes the possible synergistic roles of VitD and E_2 deficiency in developing MetS in [postmenopausal women](#)," the authors write. "Prospective and interventional studies are further needed to confirm this cross-sectional association."

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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