

# Study compares two commonly used estrogen drugs and cardiovascular safety

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The oral hormone therapy conjugated equine estrogens (CEE), which is used by women to relieve menopause symptoms, appears to be associated with increased risk for venous thrombosis (VT, blood clots) and possibly myocardial infarction (heart attack), but not ischemic stroke risk, when compared with the hormone therapy oral estradiol, according to a study published by *JAMA Internal Medicine*.

Researchers compared the [cardiovascular safety](#) of the two commonly used oral estrogen medications because little is known about the cardiovascular safety of these hormone therapy (HT) products, according to the study background. CEES are manufactured from the urine of pregnant mares and estradiol is a "natural" or "bioequivalent" estrogen, according to the study.

The study by Nicholas L. Smith, Ph.D., of the University of Washington, Seattle, and colleagues included 384 postmenopausal [women](#) ages 30 to 79, who were using oral [hormone therapy](#) and were members of the Group Health Cooperative, a large health maintenance organization in Washington.

Researchers identified 68 women who had an incident VT, 67 women who had a heart attack and 48 women who had an [ischemic stroke](#), along with 201 control patients who were current users of CEEs or estradiol between January 2003 and December 2009.

The study findings indicate a greater risk of VT associated with the use of CEEs compared with estradiol, an increased risk of [heart attack](#) that did not reach statistical significance and no increase in ischemic stroke risk.

"The findings of this comparative safety investigation need replication," the authors write. "If confirmed, the results would provide valuable information to women and their health care

professionals when making safety decisions regarding available HT options for menopausal symptom management."

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