

# Blood cholesterol levels predict risk of heart disease due to hormone therapy

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A new analysis of a subgroup of participants in the Women's Health Initiative (WHI) hormone therapy clinical trials suggests that healthy, postmenopausal women whose blood cholesterol levels are normal or lower are not at increased, short-term risk for heart attack when taking hormone therapy. In particular, postmenopausal women who had no history of heart disease but whose ratio of low-density lipoprotein (LDL or "bad") cholesterol to high-density lipoprotein (HDL, or "good") cholesterol was less than 2.5 were at no increased risk of heart attack or death due to heart attack from taking estrogen plus progestin or estrogen alone, compared to their peers who did not take hormone therapy, after four years of follow up.

"Usefulness of Baseline Lipids and C-Reactive Protein in Women Receiving Menopausal Hormone Therapy as Predictors of Treatment-Related Coronary Events," will be published in the June 1 issue of the *American Journal of Cardiology*. The study was funded by the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health.

Michael S. Lauer, M.D., director of the NHLBI Division of Prevention and Population Sciences, is available to comment on this latest analysis of the WHI hormone therapy clinical trials. He emphasizes that the primary results of the WHI hormone therapy clinical trials indicate that, overall, neither form of hormone therapy reduces the risk of heart disease in healthy, postmenopausal women, and estrogen plus progestin increases a women's risk of heart disease.

In addition, both estrogen plus progestin and estrogen alone increase the risk of stroke and blood clots – serious cardiovascular conditions that the new analysis does not address. Combination hormone therapy also increases the risk of breast cancer.

Identifying which women are more likely to be at increased risk for heart attack when taking hormone therapy can help women and their clinicians make better informed decisions about whether the benefits of hormone therapy outweigh the risks.

In general, however, women should not take hormone therapy to prevent heart disease, and women who choose to use hormone therapy for menopausal symptoms should use the lowest possible dose for the shortest duration. In addition, all women whose blood cholesterol levels are elevated are at increased risk of heart disease, regardless of whether they use hormone therapy, and they should take steps to lower their risk. Heart disease is the leading cause of death among both women and men in the United States.

Source: NIH/National Heart, Lung and Blood Institute

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