

SUMMARIES FOR PATIENTS

Postmenopausal Hormone Use and Primary Prevention of Heart Disease and Stroke in Healthy Women

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The summary below is from the full report titled "A Prospective, Observational Study of Postmenopausal Hormone Therapy and Primary Prevention of Cardiovascular Disease." It is in the 19 December 2000 issue of **Annals of Internal Medicine** (volume 133, pages 933-941). The authors are F Grodstein, JE Manson, GA Colditz, WC Willett, FE Speizer, and MJ Stampfer.

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What is the problem and what is known about it so far?

Primary prevention means preventing a disease in persons with no history of the disease; *secondary prevention* means preventing recurrence or progression of the disease in persons who already have it. Many preliminary studies have suggested that treatment with hormones protects women from heart disease, but a recent large trial of hormone replacement therapy in women with heart disease (secondary prevention) indicated that the effects of hormone therapy on the heart may be somewhat complicated; it looked like more heart attacks and strokes occurred with short-term use of hormones, but that fewer such events occurred with longer-term hormone use. Information from similar trials about primary prevention is not available.

Why did the researchers do this particular study?

To get further information on whether postmenopausal women without previous heart attacks and strokes who take hormones have fewer cardiovascular events than women who do not.

Who was studied?

The researchers studied 70,533 postmenopausal female nurses who had no known history of previous cardiovascular disease.

How was the study done?

The women were surveyed in 1976 to find out whether they had ever used postmenopausal hormones. The survey also collected medical history information, including cardiovascular risk factors. Starting in 1978, the researchers began collecting information on the type of hormones taken and, starting in 1980, on the dose of estrogen. Further follow-up surveys continued to update information on hormone use and asked whether the women had had a heart attack or stroke. The researchers confirmed all reported events, including deaths, by examining medical records and death certificates.

What did the researchers find?

Women who took hormones were 40% less likely to have a heart attack than those who never used hormones. The risk was reduced by about the same amount regardless of whether women had taken high or low doses of estrogen. No difference in the risk for stroke was found between hormone users and nonusers. However, women who took 0.625 mg or more of oral conjugated estrogen per day (an average dose) and those who took estrogen with a progestin hormone had a higher risk for stroke than women who never used hormones. Overall, women who had used postmenopausal hormones were about 23% less likely to have a heart attack or stroke than women who had never taken them.

What were the limitations of the study?

Women who decide to take hormones may be healthier to start with and may have healthier diets and activity levels than women who do not take hormones. These other factors, rather than hormones, could explain the differences between the groups in the risk for cardiovascular disease events.

What are the implications of the study?

Postmenopausal hormones may play a role in the primary prevention of cardiovascular disease. However, some hormone doses or combinations may increase the risk for stroke while decreasing the risk for heart attack.

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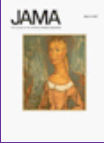
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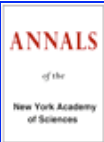
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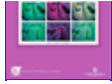
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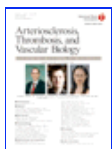
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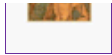
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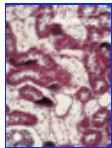
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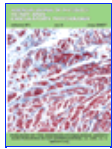
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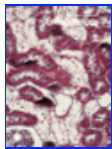
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