LDL Cholesterol Benefit

Diet, Exercise *from page 1*

lesterol levels had significantly increased at 18-month follow-up, compared with levels in the 110 participants who remained on HT at 18 months.

Stratification by randomized group assignment (the lifestyle modification "intervention" group, or the health education "control" group) in these women—the key factor that enabled a comparison between HT continuers and discontinuers in each of the two groups—showed that lifestyle modifications successfully counteract these increases, Kelley K. Pettee, Ph.D., reported in a poster at the annual meeting of the American College of Sports Medicine and subsequently in the American Journal of Preventive Medicine (Am. J. Prev. Med. 2007;32:483-9).

At 18 months, the 70 HT discontinuers in the intervention group had a mean 4 mg/dL increase in total cholesterol and a mean 7 mg/dL increase in LDL cholesterol, which was not statistically different from the mean 5 mg/dL increase in both total and LDL cholesterol in the 64 HT continuers in the intervention group.

However, the 60 HT discontinuers in the control group experienced a mean 22 mg/dL increase in both total and LDL cholesterol, compared with a mean 3 mg/dL increase in total cholesterol and a mean 5 mg/dL increase in LDL cholesterol in the 46 HT continuers in the control group, noted Dr. Pettee, who conducted the research while she was a doctoral candidate at the University of Pittsburgh, but who is currently at Arizona State University, Mesa.

Furthermore, when all 134 women in the intervention group were compared with all 106 in the control group, those in the intervention group experienced significantly greater overall decreases in weight, body mass index, and waist circumference, as well as significantly improved fat intake and increased leisure physical activity, providing further evidence of the benefits of the lifestyle modifications, she reported. (See box below.)

WOMAN study participants had a waist circumference of at least 80 cm and a body mass index (kg/m^2) between 25 and 39.9. They were not taking lipid-lowering drugs, they had an LDL cholesterol level between 100 and 160 mg/dL, and they had no major physical limitations, no known diabetes, and no previously diagnosed psychotic disorder or depression.

Participants in the study had a mean age of 58 years at the 18-month follow-up.

The median duration of HT use prior to study entry did not differ between the continuers and discontinuers, but the groups differed in that continuers were slightly younger and had higher total cholesterol and lower insulin levels.

The groups did not differ significantly with regard to anthropometric measures, leisure physical activity, fat intake, or cholesterol, triglyceride, and glucose levels, and they were also similar with regard to education, race, and smoking status.

Those randomized to the control group received a core educational series of six health-related lectures offered during the first year and quarterly thereafter.

The patients in the lifestyle intervention group worked closely with a team of nutritionists, exercise physiologists, and psychologists who developed individualized diet and exercise programs that were designed to reduce weight and waist circumference.

Healthy lifestyle changes are likely to provide benefit and can be more widely recommended than medications in postmenopausal women discontinuing HT.

Those in the intervention group participated in at least 150 minutes per week of moderate-intensity physical activity and had a caloric intake of 1,300-1,500 calories per day of low total fat and low saturated-fat foods.

Previous studies have shown that lifestyle interventions have a beneficial effect on cardiovascular disease risk factors, but did not account for concurrent changes in HT status, which is "an issue that has become relevant in the post-WHI [Women's Health Initiative] era," Dr. Pettee wrote, referring to the fact that many women discontinued HT following publication of WHI findings that linked HT use with an increased risk of cancer and other health problems.

Given that a potential consequence of HT discontinuation is increased use of pharmacologic agents, such as statins and aspirin, to counter negative cardiovascular risk factor changes, and given that these agents are associated with side effects, the current findings have important implications and suggest that "health care providers should pay special attention to encouraging healthy lifestyle changes that are likely to provide benefit and can be more widely recommended than medications in postmenopausal women that are discontinuing hormone therapy," Dr. Pettee said in an interview. ■

CVD Risk Factor Changes at 18-Month Follow-Up

	Intervention Group	Control Group
Weight	–17 lbs	–2 lbs
BMI (kg/m^2)	–3	–1
Waist circumference	–11 cm	–5 cm
Total cholesterol	5 mg/dL	12 mg/dL
LDL cholesterol	6 mg/dL	14 mg/dL
Saturated fat/cholesterol intake index	19	7
Leisure physical activity	5 MET* hr/wk	1 MET hr/wk

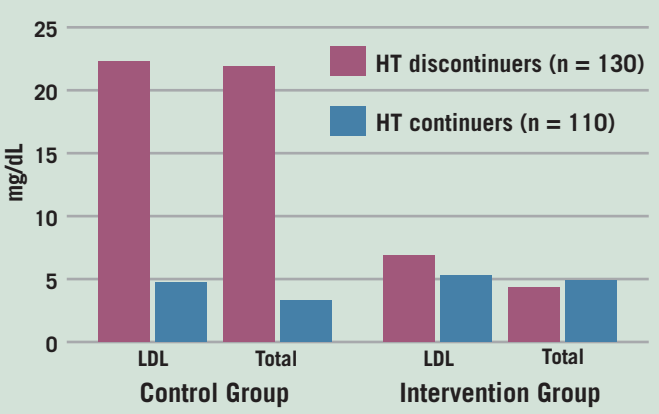
*metabolic equivalent

Note: Based on data from a subgroup of 240 subjects in the WOMAN study.

Source: Dr. Pettee

Elsevier Global Medical News

Cholesterol Increases After 18 Months



Note: Based on a subgroup analysis of the WOMAN study.

Source: Dr. Pettee

Elsevier Global Medical News

Menopause and Hormone Therapy Predict Sleep Patterns

BY HEIDI SPLETE
Senior Writer

Minneapolis — Women with no history of sleep disorders often report sleep problems—especially difficulty falling asleep—as they undergo menopause. Their complaints were validated by a sleep study of more than 700 women presented at the annual meeting of the Associated Professional Sleep Societies.

"These data provide, for the first time, objective findings to support this common sleep complaint in postmenopausal women," said Edward O. Bixler, Ph.D., vice chair of the sleep research division at Pennsylvania State University, Hershey.

To confirm the association between menopause and poor sleep and to seek a possible mechanism for this connection, Dr. Bixler and his colleagues conducted single-night polysomnographies on 715 women with a mean age of 49 years. Of these, 400 women were premenopausal, 120 were postmenopausal and using hormone therapy (HT), and 195 were postmenopausal but not using HT.

Women sleep as well as or better than men until they reach menopause, but sleep needs change with age, Dr. Bixler noted. With this fact in mind, the researchers used a group of 609 men who were at least 45 years old (with an average age of 49 years) as controls for the study. The average body mass index for both genders was 26.9 kg/m^2. All study participants had a low score (less than 5) on the apnea-hypopnea index and did not complain of insomnia or excessive daytime sleepiness.

'What was unexpected was that we didn't find an increase in daytime sleepiness. As you age, you are less likely to be sleepy during the day.'

The results of the single-night sleep test showed that the postmenopausal women who were not on hormone therapy took an average of 15 minutes longer to fall asleep compared with women on HT, and an average of 10 minutes longer to fall asleep compared with the men. These differences were statistically significant. The average time it took for the male controls to fall asleep was not significantly different from that of premenopausal women (a difference of 1.6 minutes) or of postmenopausal women who were taking hormone therapy (a difference of 5.6 minutes).

"What was unexpected was that we didn't find an increase in daytime sleepiness," Dr. Bixler noted. He proposed that the lack of daytime sleepiness might be a result of the reduced need for sleep that is a natural part of aging. "As you age, you are less likely to be sleepy during the day even though you are sleeping less at night," he said.

When the researchers looked at short-wave sleep, which is associated with the brain's ability to recharge, think, and remember, they found no differences between premenopausal women and male controls.

But postmenopausal women who didn't use HT were twice as likely to have slow-wave sleep as were male controls, and postmenopausal women who used HT were four times as likely to have slow-wave sleep as were male controls. Therefore, postmenopausal women who used HT were twice as likely to have short-wave sleep as were women who didn't use HT.

The data suggest that sleep latency is a valid symptom among menopausal women without a history of sleep disorders, especially among those who are not using HT. Based on these findings, menopausal women may be at increased risk for developing chronic insomnia that may require treatment, Dr. Bixler added.

"We would speculate that [menopausal changes] may be triggers for the onset of primary insomnia in vulnerable women," he said. ■

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