

SOUTHWESTERN NEWS

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RESEARCHERS SAY HEART DISEASE IS AS COMMON IN POST-MENOPAUSAL WOMEN AS IT IS IN MEN

DALLAS — May 20, 1994 — The common image of a person at risk for heart disease is an overweight, middle-aged man. But that stereotype overlooks another large group of people equally at risk: post-menopausal women.

Nutrition researchers at The University of Texas Southwestern Medical Center at Dallas are studying some of the reasons women's apparent protection from heart disease disappears following menopause and which treatments are most effective.

"It is true that women tend to get heart disease at a somewhat older age than men do, on average, but as many women as men eventually get coronary heart disease," said Dr. Scott Grundy, director of the Center for Human Nutrition and holder of the Distinguished Chair in Human Nutrition at UT Southwestern.

One of the risk factors for heart disease is a high-blood-cholesterol level, a common condition among post-menopausal women. "In fact, more post-menopausal women have high levels of plasma cholesterol than men of the same age," Grundy said.

A recent study conducted by Dr. Marcello Arca, a former postdoctoral fellow in the center who has returned to Rome to continue his research, Dr. Gloria Lena Vega, an associate professor of clinical nutrition, and Grundy addressed the mechanisms behind post-menopausal women's high cholesterol levels and how their condition could be treated through drug therapy. "The hypercholesterolemia is caused by reduced activity of the LDL (low-density lipoprotein) receptors, which is thought to be due to the loss of estrogens after menopause," Grundy said. "Estrogens are known to increase the LDL receptors."

The study also found that low doses of the drug lovastatin worked to

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increase the activity of LDL receptors and correct the abnormality. The study was published in the Feb. 9, 1994, issue of the Journal of the American Medical Association.

One of the possible reasons for the differences between men and women in cholesterol levels and heart disease risk factors could be that women have a different metabolism. "It's become increasingly apparent that the metabolism of the cholesterol-carrying molecule in blood is different between men and women," said Vega. "This requires systematic study of the mechanisms and risk factors."

A key factor is that women's cholesterol-carrying lipoprotein is different from that of men's. Part of that problem appears to be the very-low-density lipoprotein (VLDL), which is a precursor to LDL cholesterol and is found in higher concentrations in women than in men.

Also, women tend to have a higher concentration of high-density lipoprotein (HDL) cholesterol, the so-called "good" cholesterol, than men. "That is one reason women are protected from heart disease at early ages," Vega said.

Obesity also influences women's cholesterol levels and heart disease risk. "It's clear that lipid levels change as body weight changes — rather dramatically in the peri-menopausal and post-menopausal years," said Dr. Margo Denke, assistant professor of internal medicine and a researcher in the Center for Human Nutrition.

"But we don't know the exact mechanisms," Denke said. "Is it just a lack of estrogen? Do estrogens have a central effect, and that causes weight gain, or do women going through the change have a change in their emotions, which then causes weight gain? Or is it that they're just getting older and less physically active, and that causes weight gain?"

Grundy first recommends that women with high-cholesterol levels modify their diets, reduce their weight and increase their physical activity.

The next step in treating women not adequately helped by diet alone would be estrogen-replacement therapy. Cholesterol-lowering drugs, including the low-dosage lovastatin, is the next option although Grundy said it is a close

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alternative to estrogen therapy.

"Estrogens might be the first choice, but low doses of a cholesterol-lowering drug are a reasonable alternative," he said.

Grundy said the bottom line is that women, especially post-menopausal women, can't allow themselves to feel immune to the dangers of coronary heart disease. They should have their cholesterol levels measured and follow their physicians' recommendations for keeping their cholesterol levels within a desirable range, he said.

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