

# SOUTHWESTERN NEWS

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## UT SOUTHWESTERN RESEARCHER SHOWS CALCIUM INTAKE CAN LOWER CHOLESTEROL LEVELS

DALLAS — October 20, 1993 — A new study conducted by Dr. Margo Denke at The University of Texas Southwestern Medical Center at Dallas shows that calcium lowers cholesterol.

Denke's findings revealed that a diet fortified with calcium results in lower total and LDL-cholesterol levels and increases HDL-cholesterol levels. The findings were reported in a recent issue of the *Journal of Nutrition*.

Denke, assistant professor of internal medicine with the Center for Human Nutrition at UT Southwestern, said this is one of several studies showing a link between a high-calcium diet and lower cholesterol levels.

"How calcium acts to lower cholesterol is not clear. Our study provides some evidence that calcium prevents saturated fat from being absorbed," Denke said.

The average drop in total cholesterol was 13 milligrams per deciliter (mg/dL). The LDL-cholesterol levels, the bad cholesterol, dropped an average of 18 mg/dL, and the HDL-cholesterol levels, the good cholesterol, rose an average of 2 mg/dL.

The 13 men in the study were divided into two groups. One group ate a low-calcium diet for 10 days, while the other ate a low-calcium diet plus supplementary calcium. After 10 days, the two groups switched diet plans. A 10-day diet period was selected because the most significant changes in cholesterol levels occur within 10 days after dietary modification, Denke explained.

The low-calcium diet derived 34 percent of its calories from fat (13 percent from saturated fat) and included 240 milligrams (mg) of cholesterol and 410 mg of calcium. The other diet included an additional 1,800 mg of calcium with citric and malic acid.

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The supplemental calcium came from fortified orange juice, calcium-fortified muffins and 500 mg tablets. The calcium with citric and malic acid was used because it is the most soluble form of calcium and thereby reduces the risk of kidney-stone formation.

Denke said the study indicates that calcium may be an effective addition to cholesterol-lowering diets. Denke recommends a daily intake of 800 mg to 1,200 mg of calcium. Most Americans consume between 500 mg and 1,100 mg of calcium daily, according to the National Research Council.

She suggested several good sources of calcium to reach those goals: One cup of calcium-fortified orange juice contains approximately 300 mg of calcium. One cup of 2 percent milk contains more than 300 mg of calcium. Another good source of calcium is yogurt. One cup contains 400 mg. One spear of broccoli contains 73 mg.

"Calcium-fortified orange juice is a good way to get more calcium in your diet because it contains a form of calcium that tends to reduce the risk of kidney-stone formation," Denke said.

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