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## **Got calcium? UWM researcher finds that food labels confuse consumers**

*Consumers often don't get nutritional information they need*

Current food labeling leads to under-consumption of calcium, according to this study. Those who were taught how to translate the information consumed more. Researchers believe the same is true for other beneficial nutrients.

A woman at risk for osteoporosis is told by her doctor to get 1,200-1,500 milligrams of calcium every day. But when she looks at the Nutrition Facts panel on a carton of yogurt or a jug of milk, she finds that calcium is only listed by Percent Daily Value<sup>®</sup> (%DV).

How does she convert that to milligrams?

If she's like most of us she can't. And neither can her doctor.

Those were among the findings of research conducted by Laura A. Peracchio, professor of marketing at the University of Wisconsin-Milwaukee (UWM), and Lauren Block, professor of marketing at Baruch College (CUNY). The results were so compelling that the U.S. Food and Drug Administration added information to its Web site on how to translate %DV to milligrams.

### **The problem**



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Laura Peracchio, professor of marketing at the University of Wisconsin-Milwaukee.

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The research, which involved three separate studies and a follow-up, is discussed in the Calcium Quandary: How Consumers Use Nutrition Labels for Daily Diet, published in the Journal of Public Policy and Marketing. Peracchio and Block found that:

- In Study 1, only two of 37 respondents correctly translated the calcium information on a carton of yogurt from %DV to milligrams.
- In Study 2, when 20 physicians were shown the same label, only six gave the right answer in milligrams. (Asked how the calculation was done, one physician who gave an incorrect answer replied: I have no idea. I made it up. Yet most doctors dispense calcium recommendations to their patients in milligrams.

The central question of the research, Peracchio and Block write, is: how do consumers make food consumption decisions when product information falls short of providing the nutritional knowledge needed for personal health consumption goals"·/p>

#### **And the answer**

The answer is found in Study 3, which involved 41 women who were pregnant or breast-feeding. All had been told by their doctors or had read independently that they needed 1,200-1,500 milligrams of calcium a day.

Half of the women were given a one-page calcium fact sheet including the formula for converting %DV to milligrams. The formula is simple ·%DV is based on the average recommended calcium intake of 1,000 milligrams daily. To convert %DV to milligrams, just add ··to the percentage on the label. For example, a carton of milk delivering 30% DV contains 300 milligrams of calcium.

The women who were given the fact sheet consumed significantly more average daily calcium (a mean of 1,429.78 milligrams) than women who were not given the fact sheet (a mean of 988.24 milligrams).

Current labeling leads to under-consumption of calcium, the research showed. The women who were not given the fact sheet may have consumed close to 100%DV of calcium daily, but it fell short of the 120-150% DV they really needed.

This is particularly worrisome with at-risk populations such as those over 55 years of age, or pregnant or lactating women, says Peracchio.

Teenage girls also need extra calcium, she points out, and a study reported this summer in The New York Times suggests that consuming high levels of vitamin D and calcium may offer some protection against the most aggressive kinds of breast cancer.

### **Other nutrients affected**

Peracchio and Block point out that the difficulty in translating the Nutrition Facts panel on food products goes beyond calcium.

The challenge of using the Nutrition Facts panel to make adequate food consumption decisions is similar for other nutrients that consumers often do not consume enough of, such as dietary fiber, vitamin A, vitamin C, and iron.

The Nutrition Facts panel is separated into two categories: the top of the panel lists nutrients that should be limited (fat, cholesterol, sodium, etc.); Food nutrients are listed at the bottom (calcium, fiber, iron, vitamins A and C, etc.).

Such more attention and educational efforts have been paid to the former than to the latter, the research concluded.

Helping people better navigate the consumer environment is extremely rewarding work, Peracchio says. She teaches courses in consumer behavior, marketing strategy and nonprofit marketing at UWM's Sheldon B. Lubar School of Business, and also serves as an associate editor of the Journal of Consumer Research, one of the top three journals in the marketing field.

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A member of the UWM faculty since 1990, Peracchio received her Ph.D. in marketing from Northwestern University. She was one of two Roger L. Fitzsimonds Scholars in the Lubar School of Business for 2004-06. She has advised many organizations on marketing issues, including Hormel Foods, S.C. Johnson and the Betty Brinn Children's Museum of Milwaukee.

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