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## **Drinking Our Way to Obesity**

Calories From Beverages Doubled Since the 1960s

Daniel J. DeNoon, WebMD Medical News

Americans now get nearly twice as many calories from beverages as they did in the 1960s.

The finding comes from an analysis of national surveys conducted in 1965, 1977, 1988, and 2002 by doctoral student Kiyah J. Duffey and Barry M. Popkin, PhD, of the University of North Carolina. In 1965, Americans got about 12% of their daily calories from things they drank. Calories from beverages went up decade by decade. By 2002, beverages made up 21% of daily calorie intake. "By 2002, 30% of the U.S. population was consuming a quarter of calories or more from beverages," Duffey tells WebMD. "This is just a huge amount."

It isn't just sodas, although by 2002 Americans were getting 100 more calories a day from sodas than they were in 1965. Alcoholic beverages, 100% fruit juice, and fruit-juice drinks contribute significantly more calories to our daily diets than they did in the 1960s.

So what's the big deal? Duffey says beverage calories don't fill you up the way food calories do. "Beverages are an additional source of calories, not something we are substituting for other foods," she says. "This really affects the calorie-in/calorie-out scale. Even small changes in beverage consumption can have an effect on stemming weight gain and perhaps, in the long run, addressing some issues of the obesity epidemic."

The findings come as no surprise to Kathleen Zelman, MPH, RD, WebMD's director of nutrition. "Nowadays you can go to the corner Starbucks and have a cup of hot chocolate for 400-plus calories, so it's not surprising we continue to get more calories from beverages," Zelman says. "And beverages satisfy thirst, not hunger. It doesn't matter how much you drink -- it doesn't affect how much you eat."

The findings neither surprise nor impress Maureen Storey, PhD, senior vice president for science policy at the American Beverage Association. "Beverage choices have changed in the last 40 years and beverage patterns have changed," Storey tells WebMD. "There have been many changes over 40 years. We baby boomers are 40 years older; our whole lifestyle has changed."

One of the things that has changed since the '60s is the number of different calorie-filled beverages -- and the portion size of these beverages, says Leslie Bonci, MPH, RD, director of sports nutrition at the University of Pittsburgh. "In 1965 we did not have energy drinks, or fruit drinks, or glasses the size of our heads," Bonci says. "If you were to show any person on the street a 1965 Coke bottle, they'd say, 'I would have to have five of those.'"

Storey notes that the calories we consume are only part of the equation. The other side of the balance is the calories we burn during physical exercise. If you're looking for a scapegoat for the obesity epidemic, Storey suggests, this is a good place to start. "I think that all of us have to recognize we must balance the calories we take in from all foods and beverages with how much physical activity we are willing to expend," she says. "This is critically important for people to understand: How much are we willing to be active for how many calories we are taking in?"

The Duffey/Popkin study appears in the November issue of the journal *Obesity*.

SOURCES: Duffey, K.J. and Popkin, B.M. *Obesity*, November 2007; vol 15: pp 2739-2747. Kiyah J. Duffey, doctoral student, University of North Carolina. Kathleen Zelman, MPH, RD, director of nutrition, WebMD, Atlanta. Maureen Storey, PhD, senior vice president for science policy, American Beverage Association, Washington, D.C. Leslie Bonci, MPH, RD, director of sports nutrition, University of Pittsburgh.

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Kiyah J. Duffey and Barry M. Popkin. Shifts in Patterns and Consumption of Beverages Between 1965 and 2002. *Obesity*. 15(11):2739-2747. 2007.

Background: Beverage patterning may play a role in partially explaining the rising rates of obesity in the United States, yet little work on overall trends and patterns exists. Our objective was to examine trends and patterns of beverage consumption among U.S. adults.

Methods: We used data from the nationally representative Nationwide Food Consumption Surveys (1965, 1977 to 1978) and the National Health and Nutrition Surveys (1988 to 1994, 1999 to 2002). To examine trends we determined percent consuming and per capita and per consumer caloric intake from all beverages. We used cluster analysis to determine year-specific beverage patterns in 1977 and 2002.

Results: The percentage of calories from beverages significantly increased between 1965 (11.8%), 1977 (14.2%), 1988 (18.5%), and 2002 (21.0%); this represents an overall increase of 222 calories per person per day from beverages, resulting largely from increased intake of calorically sweetened beverages. Beverage patterns in 2002 were more complex than in 1977 and were dominated by a greater number of beverages, reflecting the increase in alcohol, soda, and diet beverages.

Conclusion: Calories from beverages increased substantially from 1965 to 2002, providing a considerable source of daily calories. Given the upward trends in calorically sweetened, nutrient-deficient beverages and the shifts in overall beverage patterns, addressing beverage intake is a salient issue for adults.

Key Words: adults • energy intake • eating behaviors • epidemiology • trends

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