

Fast-food consumption among US adults and children: Dietary and nutrient intake profile

SAHASPORN PAERATAKUL, MBBS, PhD; DAPHNE P. FERDINAND, MN, RN; CATHERINE M. CHAMPAGNE, RD, PhD; DONNA H. RYAN, MD; GEORGE A. BRAY, MD

ABSTRACT

Objective To examine the dietary profile associated with fast-food use. To compare the dietary intake of individuals on the day that they ate fast food with the day that fast food was not eaten.

Design Cross-sectional study design. The dietary intake of individuals who reported eating fast food on one or both survey days was compared with those who did not report eating fast food. Among the individuals who reported eating fast food, dietary intake on the day when fast food was eaten was compared with the day when fast food was not eaten. Weighted comparison of mean intakes and pairwise t-test were used in the statistical analysis.

Subjects/setting Data from 17,370 adults and children who participated in the 1994-1996 and 1998 Continuing Survey of Food Intakes by Individuals. Dietary intake data were collected by 2 non-consecutive 24-hour dietary recalls.

Results Fast-food use was reported by 37% of the adults and 42% of the children. Adults and children who reported eating fast food had higher intake of energy, fat, saturated fat, sodium, carbonated soft drink, and lower intake of vitamins A and C, milk, fruits and vegetables than those who did not reported eating fast food ($P < .001$). Similar differences were observed among individuals between the day when fast food was eaten and the day when fast food was not eaten.

Conclusions Consumers should be aware that consumption of high-fat fast food may contribute to higher energy and fat intake, and lower intake of healthful nutrients. *J Am Diet Assoc.* 2003;103:1332-1338.

Fast food is a growing component of the American diet, and the frequency of fast-food use has increased dramatically since the early 1970s (1). The number of fast-food outlets increased from about 30,000 in 1970 to 140,000 in 1980, and fast-food sales increased by about 300% (1). More recent estimates show that in 2001, there were about 222,000 fast-food locations in the United States, generating sales of more than \$125 billion. The number is projected to increase by 4.1% in 2002, with estimated sales of \$130.1 billion (2). The same report also indicated that three of 10 consumers agreed that meals at a restaurant or fast-food establishment are essential to the way they live, and three of five consumers reported that they plan to eat at fast-food restaurants in 2002 about as often as they did in 2001.

Fast food is especially popular among adolescents, who on average visit a fast-food outlet twice per week (3,4). A survey of 4,746 students 11 to 18 years of age reported that about 75% ate at a fast-food restaurant during the week before the survey (5). The same survey showed that fast-food use was associated with higher intake of fried potato, hamburger, pizza, and soft drink, and lower intake of fruits, vegetables, and milk. Fast food is high in fat and energy, and although fast-food restaurants have diversified to include a broader range of foods, hamburgers and french fries continue to be leaders in terms of sales volume (1). A small order of french fries typically contains about 200 calories and 10 g of fat, and a large hamburger contains nearly 600 calories and 35 g of fat. Consequently, many people have raised concerns about the nutritional quality of

S. Paeratakul is an instructor, C. M. Champagne is a research professor, D. H. Ryan is a professor, and G. A. Bray is the Boyd Professor at the Pennington Biomedical Research Center, Louisiana State University, Baton Rouge. D. P. Ferdinand is a doctoral candidate at the Southern University and A&M College School of Nursing, Baton Rouge, LA.

Address correspondence to Sahasporn Paeratakul, Nutritional Epidemiology, Pennington Biomedical Research Center, 6400 Perkins Rd, Baton Rouge, LA 70808. E-mail: paerats@pbrc.edu

*Copyright © 2003 by the American Dietetic Association.
0002-8223/03/10310-0012\$30.00/0
doi: 10.1053/S0002-8223(03)01086-1*