Comparison of Food Sources of Energy Among Adults that Skip Versus Consume Breakfast

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Background

• Breakfast consumption is associated with lower rates of chronic disease and higher intakes of vitamins and minerals, including calcium, folate acid, and zinc. Skipping breakfast may further pose a threat to diet quality, which may result in less desirable food choices later in the day.
• While breakfast consumption in children has been explored, less is known in adults.

• The objective of this study was to examine the proportional contribution of food sources to energy intake for adults who skipped versus ate breakfast.

Study Design, Settings, Participants

• This cross-sectional study used data from 31,514 US adults, 18+ years old, were analyzed from the 2005-2016 National Health and Nutrition Examination Survey (NHANES).
• Participants in this study were categorized according to whether they skipped breakfast (n=4,993) or ate breakfast (n=26,521) defined as self-reported eating occasion of breakfast on the day of intake.
• Collected data were used to estimate the intakes of energy, nutrients, and food components from the food and beverages reported as consumed at breakfast and throughout the day.
• Dietary intakes were assessed using an in-person 24-hour dietary recall using the validated Automated Multiple Pass Method.

Measurable Outcome & Analysis

• Food sources data from the 24-hour recall were categorized into What We Eat in America Food Categories.
• MyPlate equivalents estimates were produced by USDA using the Food Patterns Equivalents Database (FPED) to determine food group intakes.
• Sums of energy were aggregated to determine the proportions of energy from each food source for the total day as well as during breakfast and snacks.
• Controlled for age, sex, race, ethnicity, marital status, and percent of federal poverty rate.
• Weighted population-based estimates were computed based on sample weights provided by CDC/NCHS using SPSS Complex Samples, v25.

Results

• Adults who skipped breakfast consumed greater proportions of total energy from mixed dishes, sweetened, and alcoholic beverages, and less energy from breads, plant-proteins, milk, fruit, and eggs. This lower intake of breads, eggs, and milk is likely due to skipping breakfast.
• Adults who ate breakfast also consumed more plant-proteins and fruit than those who skipped breakfast. These food groups likely translate to improved nutrient intake among adults who consume breakfast.
• Educational efforts should address breakfast’s role in promoting nutritional adequacy and improving overall diet quality in adults.

Conclusions