Pizza a major contributor of fat, calories, sodium to youth diet

On days they eat pizza, children and adolescents take in significantly more calories, fat and sodium than on days they don't, a new study has shown.

In fact, pizza is the second-highest source of energy in the diet of American youths. Because it is eaten so frequently – about 20 percent of youths eat pizza on any given day – its nutrient content should be improved, say the researchers, whose report is published in the journal Pediatrics.

“Curbing pizza consumption alone isn’t enough to significantly reduce the adverse dietary effects of pizza,” says lead author Lisa Powell, associate director of the Health Policy Center at the Institute of Health Research and Policy at the University of Illinois at Chicago. “It’s a very common and convenient food, so improving the nutritional content of pizza, in addition to reducing the amount of pizza eaten, could help lessen its negative nutritional impact.”

The researchers examined dietary recall data from youths ages 2-19 who were participating in the National Health and Nutrition Examination Survey between 2003 and 2010.

They found that caloric intake from pizza among children ages 2-11 dropped 25 percent between 2003 and 2010. Among adolescents who ate pizza, calories from pizza fell, although the prevalence of pizza consumption increased slightly for this age group.

On days when children ate pizza, they took in an additional 84 calories, 3 grams of saturated fat, and 134 milligrams of sodium than they did on no-pizza days. Adolescents took in an extra 230 calories, 5 grams of saturated fat and 484 milligrams of sodium. In 2009-2010, on days pizza was eaten, it made up 22 percent of total caloric intake among children and 26 percent of total caloric intake in adolescents.

“Children and adolescents do not adequately compensate by eating less of other foods on days when they eat pizza,” said Powell, who is professor of health policy and administration in the UIC School of Public Health.

For adolescents, the additional fat and sodium intake on days that pizza is eaten represents 24 percent and 21 percent, respectively, of the recommended daily values for those nutrients, she said.

Pizza had the largest impact on diet when eaten as a snack between meals. Children took in an additional 202 calories, and adolescents an extra 365 calories, on days they ate pizza as a snack compared to days they did not.
The researchers also looked at where and when pizza was eaten. They found that from 2003 to 2010, calories from pizza at dinner fell, but pizza consumption at lunch and from school cafeterias did not change. However, overall caloric intake was similar on days when pizza from school cafeterias was and wasn’t eaten, possibly because non-pizza lunch offerings were similarly high in calories, Powell said.

Pizza's contribution to excess calories was generally consistent across race, gender and income, except it was significantly higher among African American children as compared to Hispanic children.

“Because when pizza is consumed, it increases the total daily calories that children and adolescents take in, it could be an important contributor to the obesity epidemic,” says study co-author Dr. William Dietz, director of the Sumner M. Redstone Global Center for Prevention and Wellness at the Milken Institute School of Public Health at the George Washington University. "Moderating pizza consumption should become another goal in our efforts to reduce obesity in U.S. youth."

The authors also suggest that because of its prevalence and impact on diet, pizza should be addressed specifically in nutritional counseling.

Binh Nguyen, of the Economic and Health Policy Research Program of the American Cancer Society, is also a co-author on the paper.

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