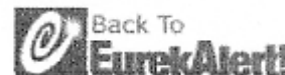


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The more you have on your plate, the more you overeat

ITHACA, N.Y. -- A study by Cornell University researchers finds that when young adults are served larger portions from one week to the next they overeat by almost 40 percent. Eating larger portions over time could account for the growth of the American girth over the past 20 years, the researchers say.

"The more food we served to the college-student volunteers in our eating study, the more they ate," says David Levitsky, professor of nutritional sciences and of psychology at Cornell. "Since we know that restaurants are serving larger and larger food portions, we think that larger portions could be a major factor responsible for the increase in overweight and obesity that is so evident today."

Levitsky and former Cornell undergraduate student Trisha Youn '01, now a student at New York University School of Medicine, asked 13 volunteers to eat a buffet lunch three times during a week. The volunteers were not told that their portions had been weighed. During the following week, the students ate three meals: Some were served portions of the same weight as the previous week, others were served portions weighing 125 percent or 150 percent more.

Volunteers who consumed the largest portions -- 150 percent larger than the week before -- ate an average of 39 percent more food, in weight, during the week than they did the previous week, an average of 273 more calories per person.

The researchers' paper, "The More Food Young Adults Are Served, the More They Overtake," is published in the October issue of the *Journal of Nutrition* (134: 2546--2549).

Studies by other researchers have shown that while Americans, on average, are not using up as many calories through activities such as exercise today compared with 20 years ago, they are taking in, on average, about 200 more calories a day than they did in the 1970s. Researchers report that almost half of Americans' meals are now consumed outside the home, and that restaurant portion sizes have jumped by between 20 percent and 60 percent over the past 20 years. Another study found that 35 percent of 181 food products reviewed jumped in size between the 1970s and 1999. Meanwhile, the prevalence of adult obesity in the United States jumped to almost 31 percent of the population in 1999 from 14 percent in 1971. Although researchers suspect that the prevalence of larger portions plays an important role in that trend, few papers have tested the relationship.

"This data supports the powerful role that environment plays in determining food intake and possible increases in body weight," says Levitsky. The study also showed 500 grams (about 18 ounces) above normal portions is the average amount that can be consumed before a person feels uncomfortable.

Levitsky says that while the student volunteers might have eaten less later in the day after overeating at lunch during the second week of the study, his studies have shown that the size of breakfast or between-meal snacks does not affect the amount consumed at subsequent meals. "Likewise, if you don't eat for a day, you rate yourself more hungry, but you don't eat more food the next day. We've also shown that when you are fed and eat 33 percent [above normal portions] per day for two weeks, the day after you stop overeating, you rate yourself as full, but again, you eat the same amount of food as you did prior to the overfeeding."

Levitsky also recently showed that the "freshman 15" is a real phenomenon: College freshmen gain an average of 4.2 pounds during their first 12 weeks on campus and that breakfast and lunch at all-you-can-eat dining facilities account for 20 percent of the weight gain.

"From a public health perspective, the results of this study are extremely encouraging," Levitsky concludes. "If it's correct that the increase in portion size is a major cause of the epidemic of obesity, then it should be possible to stop and possibly reverse this trend toward increased body weight by taking control of size of portions served to the American people."

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Related World Wide Web sites: The following sites provide additional information on this news release. Some might not be part of the Cornell University community, and Cornell has no control over their content or availability.

- David Levitsky:

<http://www.human.cornell.edu/faculty/facultybio.cfm?netid=dal4&facs=1>

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