

## STUDY LINKS BREAKFAST PATTERNS TO EXCESS WEIGHT

People who consume meat and eggs for their morning meal and people who skip breakfast entirely are more likely to carry extra weight than those who eat other foods, according to a new study. **Gladys Block, Ph.D.**, professor of epidemiology and public health nutrition, is the study's principal investigator.

“More and more Americans are skipping breakfast as the pace of our lives becomes increasingly hectic,” says Block. “What our study shows is that if the goal is to lose or maintain weight, skipping breakfast is not a good way to go about it. Skipping breakfast may be just as bad as eating a candy bar first thing in the morning.”

The study, published August 1 in the *Journal of the American College of Nutrition*, comes at a time when the proportion of American adults who skip breakfast has increased from 14 to 25 percent between 1965 and 1991. The number of obese adults in the United States has also grown, jumping from 23 percent in 1994 to 31 percent in 2000, according to the U.S. Centers for Disease Control and Prevention.

“Skipping breakfast has already been established as a risk factor for being overweight, but our study is the first to really look at how different breakfast types may affect weight while controlling for lifestyle and demographic variables,” says **Coralie Brown, M.P.H. '03**, coauthor of the paper and a School of Public Health graduate student at the time of the study.

The researchers analyzed data from 16,452 adults who participated in the Third National Health and Nutrition Examination Survey from 1988 to 1994. The data included body mass index (BMI) measurements, age, gender, race, and other demographic information. The researchers also controlled for such factors as physical activity and smoking, and placed participants in one of 10 breakfast categories based upon the foods they reported eating the prior day: meat/eggs, ready-to-eat cereal, cooked cereal, breads, quick breads, fruits/vegetables, dairy, fats/sweets, beverages, and no breakfast.

According to the study, people who ate ready-to-eat cereal, cooked cereal, or quick breads (a category which included pastries, cookies, or waffles) for breakfast had the lowest BMI measurements, while those who ate meat and eggs or skipped breakfast had the highest.

The researchers went on to calculate the total calories the participants consumed for the entire day. They found that meat and egg eaters ate significantly more calories throughout the day than those in most of the other groups, a finding consistent with that group's higher average BMIs. There were, however, some



seemingly contradictory findings. Those who skipped breakfast had the lowest level of calorie consumption among the groups but had higher BMIs, while those who ate quick breads had a high level of calorie consumption but lower BMIs. Researchers have speculated on several possible reasons for the incongruity but maintain that the study's message is clear: Skipping breakfast is not good for you.

“Overall, our findings support the theory that a low-fat, high fiber breakfast is associated with less weight,” says Brown. “It could also point to the significance of organized meals. Foods that are eaten ‘on-the-run’ are typically high in fat and can lead to weight gain.”

Other authors of the study are **Marion Dietrich, Ph.D.**, a UC Berkeley food chemist working in nutritional epidemiology; and from the Kellogg Company, Sungsoo Cho, director of nutrition, and Celeste Clark, vice president of corporate and science affairs. Kellogg reviewed the paper but had no editorial control over its contents. 🍌