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Chefs can create reduced-calorie restaurant foods

Restaurants could play an important role in helping to reduce the growing obesity epidemic by creating reduced-calorie meals, according to Penn State researchers.

The researchers surveyed chefs, restaurant owners, and culinary executives from across the country to assess their perceptions of serving healthy foods in restaurants.

In the survey, 72 percent of the 432 respondents said they could trim off 10 percent of the calories in meals without customers noticing differences in taste, and 21 percent said they could trim off at least 25 percent of the calories. This small change could lead to a major impact on the obesity epidemic.

"Reducing intake by as little as 100 calories per day can amount to a significant weight loss over a year," says Liane Roe, research nutritionist in Penn State's Department of Nutritional Sciences and co-author on the team's findings, which appeared in *Obesity*.

Roe and co-author Barbara Rolls, holder of the Helen A. Guthrie Chair in Nutrition, found that many chefs were not familiar with the calorie content of the meals they served -- 7 percent were not at all familiar and 49 percent were somewhat familiar.

"If a large number of chefs don't know the calorie content of their food, they will be limited in their ability to modify what they serve to guests," said Roe.

Chefs in the study were much more willing to create new reduced-calorie foods rather than modifying existing meals. Rolls explains that chefs might not want to modify their signature dishes for fear of losing sales or affecting their restaurant's reputation.

This highlights a common idea chefs have about restaurant food: that promoting a dish as healthy is the "kiss of death." According to Rolls, they believe that very few customers will want that food. However, spotlighting a food's elevated health status is not a necessity.

"Silent change goes on all the time in the food industry," said Rolls.

In the study, chefs rated their perceptions of obstacles to increasing healthy food in restaurants. Low consumer demand was the major concern -- 32 percent of chefs thought this -- followed by the need for staff skills and training -- 24 percent -- and high ingredient cost -- 18 percent. The majority of chefs, 71 percent, indicated that the success of a low-calorie meal hinged primarily on taste.

When asked about the most effective method for reducing calories in meals, chefs favored reducing portion sizes over "reducing calories per bite" -- reducing fat or adding fruits or vegetables. However, when asked to pick specific strategies for reducing calories for two popular meals -- beef stew and apple pie a la mode, chefs most often chose methods of reducing fat. Rolls said this seeming inconsistency most likely shows a knowledge gap in the culinary field; the chefs surveyed may not fully understand the terminology of "reducing calories per bite."

Rolls has shown in past research that people typically eat the same volume of food over a one- or two-day period. By adding water-rich foods -- fruits and vegetables -- that are low in calories per bite, people can maintain the total weight they eat while reducing the calorie count. Some of her past research shows that people do not notice calorie reductions of up to 30 percent.

Not only would substituting fruits and vegetables reduce calories in meals, but it would improve nutrient intake, which has dropped off sharply in recent years. A recent study conducted by the Centers for Disease Control and Prevention showed that fruit intake among Americans has fallen significantly within the last ten years, while vegetable intake has remained steady. However, the majority of Americans are not eating the recommended amounts of fruits or vegetables, the CDC study suggested.

Other recent studies show that people are increasing the frequency at which they eat out, that people who eat out frequently are more likely to be overweight. By better understanding the attitudes of chefs, Rolls, Roe, and their team at Penn State hope to improve methods for making meals healthier and promote those methods among restaurants.

"It's important to figure out how to reduce the calorie content in meals in a way that keeps food just as enjoyable at the same price," said Rolls. "We're all responsible for what we eat, but restaurants can make it easier for us."

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Chefs surveyed in this research included corporate chefs, restaurant chefs, culinary educators and kitchen managers. Research took place at six meetings of either the American Culinary Federation or the Research Chefs Association during the spring and summer of 2008.

The team also included Julie Obbagy, a graduate of Penn State now at the USDA Center for Nutrition Policy and Promotion; and Margaret Condrasky, Department of Food Science and Human Nutrition and Julia Sharp, Department of Applied Economics and Statistics, both at Clemson University.

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