

Helpful hints, and an illusion, for healthy holiday eating

November 22 2012



(Medical Xpress)—The average person consumes about 4,000 calories on Thanksgiving, two times the amount that an average person needs. And that's just the start of a holiday season full of parties, dinners and get-togethers.

If you're [counting calories](#) or looking to stay trim over the next six weeks, consider using the research findings of Koert van Ittersum, associate professor of marketing in Georgia Tech's Scheller College of Business. He's conducted several studies validating techniques that could help you eat less tomorrow – the biggest eating day of the year – and stay strong throughout the holiday season when you're barraged by a seemingly endless parade of treats.

Smaller bowls, plates and spoons are the keys to eating less

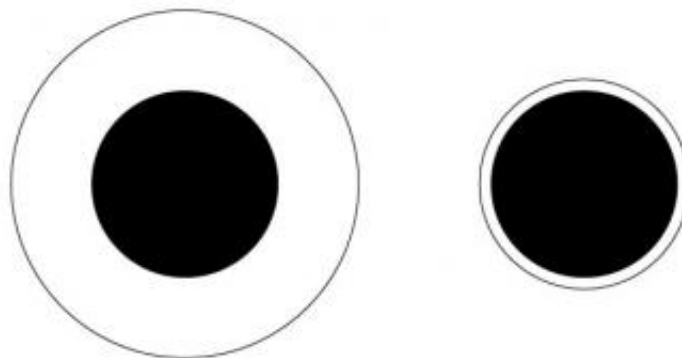
People eat 92 percent of what they serve themselves. Eliminate the urge before heading to the table by grabbing a small bowl. Human perceptual tendency is to judge object sizes based on comparisons with neighboring items, van Ittersum says. So having a smaller bowl helps people control the impulse to over-serve food. Using smaller serving spoons also helps prevent us from piling too much food on our plate.

This proved true in his 2006 [study](#) with colleagues at Cornell University and Eastern Illinois University, which included a group one might expect to exhibit moderation in food serving and consumption: 85 nutritional experts. But at an ice cream social for a colleague, [study participants](#) served themselves 31 percent more ice cream when they were given a 34-ounce bowl versus a 17-ounce bowl. And they scooped nearly 60 percent more when given a large bowl and a large serving spoon, while being unaware of the greater ice cream quantities.

Bottom line: "If you want to lose weight, use smaller china and flatware," van Ittersum advises. "While 4 ounces of food on an 8-ounce plate might look like a good helping, 4 ounces on a 10-ounce plate could seem skimpy."

Why do we tend to over-serve ourselves when given larger plates and bowls? Blame it on the Delboeuf illusion, the optical illusion that leads people to think two identical circles are different in size if one of them is surrounded by a larger circle. In food terms, the inner circle (what you put on your plate/bowl) looks smaller when the outside circle (the plate/bowl) is larger, causing you to overserve.

DELBOEUF ILLUSION



Both black circles are the same size. The illusion leads people to think that the one on the right looks bigger because its outside circle is only slightly bigger.

How color determines portion sizes

Color can also help control portion sizes. In a 2011 [study](#), people served themselves considerably more white-sauce pasta on white plates than red-sauce pasta on white plates. Again, it's because of the Delboeuf illusion. White on white or red on red doesn't provide enough visual contrast between the target serving area and the outer edge of the plate, increasing one's tendency to over-serve on large plates, van Ittersum explains.

His advice? If you own dinnerware in different colors, make sure the plate highly contrasts with the color of the main course. You'll serve yourself less.

You can also go one step further with the color of your tablecloth or placemat. "If you place a white plate on a white tablecloth, the Delboeuf illusion is lessened because the outside circle essentially disappears and you only focus on the inside circle, which is the target food area," says van Ittersum.

He admits the illusion can be hard to understand, but explains it in this video. The bottom line: use plates that contrast with your food. And use plates that are the same color as the tablecloth.

Grab a tall slender glass to drink less

When pouring drinks, your eyes can play tricks on you as well. Most people, including professional bartenders, inadvertently pour 20 to 30 percent more alcohol into short, wide glasses than tall, slender ones, van Ittersum says. In his 2005 [study](#), bartenders and students of legal drinking age poured mock mixed drinks into both tall and short glasses from liquor bottles filled with water or tea. Even after 10 rounds of practice, the college students overpoured into shorter glasses. The career bartenders did slightly better, pouring less into the shorter glasses, but they still overpoured.

"This tendency is not sufficiently reduced by education, practice, concentration or experience," van Ittersum says. He suggests two possible solutions to this phenomenon: use a tall glass or select one with alcohol-level marks etched on it.

Music, lighting affect eating patterns

Once you're finally sitting at the dinner table, you can create an environment that helps increase the enjoyment of your meal and cuts calories. In a 2012 [study](#) with Brian Wansink at Cornell University, van Ittersum modified the dining area of a fast food restaurant. One half of the seating area was untouched, complete with the loud noise and bright lights typically found in a fast food restaurant. The other half was transformed into a soundproof, fine dining area with indirect lighting, tablecloths and jazz music piped through speakers.

People in the quieter area ate an average of 18 percent less of their meals, even though they spent more time at the table. They also rated the food as tasting better than those who sat in the traditional section.

Van Ittersum isn't suggesting that every homeowner should rush out and hire a contractor to rebuild their dining room. But he says paying attention to your environment can make a difference.

"The more relaxed the environment, the less a person tends to eat," said van Ittersum. "Use tablecloths or nice placemats. Turn off the TV. Flip on the radio and play soft music. Relax and enjoy your food and the people at the table."

So this [holiday season](#), remember to use smaller plates, smaller serving spoons and taller glasses to exercise portion control and consume fewer calories. Also, to eat less, make sure your plate color contrasts with the color of the main course. Put on some easy listening music and dim the lights for your holiday meal so you and your guests can relax, slow down and enjoy each others' company rather than speed through your meal. It may help prevent you from having to add "losing weight" to your list of New Year's resolutions.

Provided by Georgia Institute of Technology

Citation: Helpful hints, and an illusion, for healthy holiday eating (2012, November 22) retrieved 23 April 2024 from <https://medicalxpress.com/news/2012-11-hints-illusion-healthy-holiday.html>

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