**What’s in That Big Mac? More Than You Think**

By [Alexandra Sifferlin](http://healthland.time.com/author/asifferlin/)May 24, 2013

Apparently, [fast-food](http://topics.time.com/fast-food/) frequenters have no idea how many calories they’re ordering up at the counter.

Researchers conducted a large cross-sectional study of 1,877 adults and 330 school-age kids who regularly visited fast-food chains including [McDonald’s](http://topics.time.com/mcdonald%27s/), Burger King, Wendy’s, KFC, Subway and Dunkin’ Donuts. The investigators collected receipts from the participants in order to calculate how many calories the participants consumed from their meals. They also asked the volunteers to estimate the number of calories they had just ordered. At the time of the study, none of the restaurant chains included calorie information on their menus, as many now do.

Reporting in the *BMJ,* the researchers found that on average, adults consumed 836 calories with each order, adolescents ate 756 and kids downed 733 calories. Not only was that a relatively large amount to consume in a single meal, but the participants also consistently underestimated how dense their meals were by an average of more than 100 calories. Adults and kids underestimated their meals by 175 calories, and adolescents by 259 calories.

The more calories the meals contained, the more the participants underestimated their content. Interestingly, the greatest disparity in calorie estimations were among Subway diners. Adults and adolescents who ate at the sandwich chain underestimated their meals by 20% to 25% more than the participants who ate at McDonald’s, possibly because the Subway choices have an aura of being lighter and healthier than those at fast-food chains.

But starting in 2014, as part of the U.S. Patient Protection and Affordable Care Act (ACA), all restaurant chains that have over 20 restaurants in the U.S. must list the calorie content on their foods on menus. The initiative has received some push back from unlikely places, with some [public-health experts saying](http://my.americanheart.org/professional/General/Population-Approaches-to-Improve-Diet-Physical-Activity-and-Smoking-Habits_UCM_442115_Article.jsp) the plan, rolled out in some cities and states, so far hasn’t resulted in a significant change in eating habits. Some studies of the strategy found that customers don’t notice the labels, or even if they do, they don’t influence what they buy.

A 2011 [study of New York City consumers](http://healthland.time.com/2011/07/27/do-calorie-counts-on-menus-curb-eating-not-so-much/), for example, reported that only about a sixth of fast-food diners used calorie information in deciding what to buy and then bought less food on average after city officials introduced the menu labeling to the city in 2008.

In May, two Johns Hopkins obesity experts [wrote in *the New England Journal of Medicine*](http://www.nejm.org/doi/full/10.1056/NEJMp1301685) that without a solid understanding of what the calorie counts mean, simply posting the numbers next to menu items will fall short. They wrote:

In jurisdictions that mandated menu labeling in restaurants before the passage of the ACA, calorie information is usually presented in terms of absolute calories (e.g., a hamburger has 250 calories). If customers don’t understand what 250 calories means or how those calories fit into their overall daily dietary requirements, posting that information on a menu may not be very useful. That difficulty may apply particularly to minority populations and those with low socioeconomic status, who are at highest risk for obesity and tend to have lower-than-average levels of nutritional literacy and numeracy, which may make it difficult for them to translate the information into interpretable equivalents.

However, the 2011 study of New York City diners did reveal that among those who used the calorie information to make eating choices, they purchased on average 106 fewer calories than those who didn’t pay attention to the labels. A significant cut like that [could lead to a weight loss of up to 10 lb. a year](http://www.nypost.com/p/lifestyle/food/item_eetR9eyL7zY9HSRPvWnNHO).

Even if the data don’t yet show that the counts consistently change eating habits, some public-health experts say they may have other benefits. The transparency, for example, is compelling some foodmakers to [produce smaller portion sizes](http://www.nytimes.com/2012/09/13/business/mcdonalds-to-start-posting-calorie-counts.html) and provide lighter options out of concern that high-calorie counts will scare [consumers](http://topics.time.com/consumers/) away.

However, other experts say that an obsessive focus on numbers may also backfire. “If [the food industry] responds to that by decreasing portion sizes, that would be great, but if they respond by taking out healthy fats, which is one of the easiest ways to reduce calories, that’s not,” says Dr. Dariush Mozaffarian, an associate professor of medicine and epidemiology at Harvard Medical School and Brigham and Women’s Hospital. Some healthy foods may actually contain more calories than unhealthy options, and that can be confusing for consumers who are just focusing on the final tally. “For consumers, if you made a choice solely based on menu-calorie labels, you may choose soda over nuts calorie-wise, which is a terrible decision,” he says.

Another approach that may be more successful — and potentially more meaningful for consumers — is to swap calorie counts with more relevant information, like what it would take to burn off those calories. A [small study last month](http://healthland.time.com/2013/04/24/are-you-willing-to-walk-for-that-burger/) showed that when people ordered off menus that listed the minutes of walking needed to burn off the calories in the food, they ordered and consumed fewer calories compared with those who ordered off a menu with no calorie labels. The same study also found no difference between calories ordered and consumed between those who ordered off a standard menu, and those who ordered off a menu that listed the calories for each option, which suggested that listing calories doesn’t result in meaningful changes to eating behavior. As the author of that study said to TIME:

It could take anywhere from one to two hours of moderate exercise such as brisk walking to burn the calories in some of the energy-dense foods. This may then help them make more appropriate food choices.

Helping people to put calories in context — just at the time that they’re ordering food — could be more important than simply throwing numbers at them, say researchers. Giving consumers a more tangible idea of what their food choices mean for their waistline — and their next workout — may help bring their internal calorie meters into sync with what foods actually contain.

Read more: <http://healthland.time.com/2013/05/24/whats-in-that-big-mac-more-than-you-think/#ixzz2VAY9EFtt>