**The truth about low-fat foods By *Kerry Torrens - Nutritional therapist***[**http://www.bbcgoodfood.com/howto/guide/truth-about-low-fat-foods**](http://www.bbcgoodfood.com/howto/guide/truth-about-low-fat-foods)

Take a walk down any aisle in your local supermarket and you'll see fat-free desserts, low-fat biscuits and calorie-counted ready meals. But while our shopping baskets are full to bursting with these guilt-free foods our waist-lines keep getting bigger.

 Enter the trans-fats. Since the 1980s there's been a boom in low-fat products as the message got out that to improve our health, especially heart health, we needed to reduce the amount of saturated fat in our diets. This means cutting back on full fat dairy foods, red meat and certain processed foods. It's true that fat supplies more than twice the calories per gram of carbohydrates, and saturated fat is the type of fat primarily responsible for clogging our arteries and increasing cholesterol levels. But, as we came to terms with this unpalatable fact, the food industry got to work replacing the animal fats in their products with un-saturated vegetable oils. Some of the changes they had to make included altering the structure of the vegetable oil so it could be used in the place of solid fats. To do this the food producers used a process called hydrogenation which created a solid or semi-solid fat thought to be more appropriate for their food processing needs.

Unfortunately, we now know these hydrogenated fats increase levels of dangerous trans-fats which are both bad for the heart and our cholesterol. Although trans-fats can be found at low levels in some natural foods these man-made versions meant it was likely we were eating more of them. Since learning of the dangers of trans-fats the food industry and our UK supermarkets have been working hard to reduce levels of them in their products.

**Bitter sweet**

As well as altering the oils used for producing low-fat foods, manufacturers also found they had to increase the amount of sugar in their products so we continued to enjoy their taste and texture. All of this meant that the typical low-fat product tended to be high in carbs, might contain trans-fats and at the end of the day had a very similar calorie count to the original product. In fact when we eat foods high in carbs especially white refined ones, our bodies digest them more quickly. This can lead to blood sugar swings and cravings making it more difficult to control our overall calorie intake - which means that second or third 'low fat' biscuit starts to look very tempting! A diet too high in these refined carbs and sugars can be as unhealthy as a high-fat diet because it increases the risk of diabetes, heart disease and causes high cholesterol levels.

**Good fats and bad fats**

We all need some fat in our diet, not least because it makes our food more palatable and tasty. Nutritionally, fats do more than simply supply calories. Certain fats, like those in nuts, seeds and oily varieties of fish provide essential fatty acids (including the omega-3 variety). These essential fats are important for maintaining healthy blood vessels, making hormones and for the correct functioning of our nervous system. The fat in our diet also helps us absorb certain vitamins, the fat-soluble ones, which include A, D, E and K. Following a very low-fat diet makes you more likely to be low in these vitamins and that can impact your immunity, limit the body's ability to heal itself and have an influence on bone health. It's better to focus your diet on the healthier fats by including more fish, nuts, seeds and vegetable oils including avocado and olive. Here's how to make your meals naturally fat-healthy...

Make sure you're getting good fats:

* Eating more fish, nuts and seeds - for example choose salmon instead of bacon for a weekend brunch; snack on unsalted nuts rather than crisps.
* Removing the skin from poultry and trimming visible fat from other cuts of meat.
* Checking labels on food products.
* Using good quality un-saturated oils, like walnut or pumpkin, for dipping your bread instead of using spreads.
* Avoid frying instead steam, bake, poach or grill.
* Replace mayo with plain yogurt - just add a squeeze of lemon juice and some mixed herbs, chives work well.
* Make chips by baking chunky cut potato wedges with a drizzle of rapeseed oil and a sprinkle of paprika.

**Why Are We So Fat?**

**Written by Cathy Newman**

**Republished from the pages of National Geographic magazine**

How did Americans get so fat? Where did we go wrong? It depends on whom you ask. I asked Robert Atkins last year, a month before the purveyor of today's hottest diet died from a head injury suffered in a fall. "We went wrong by allowing the American Medical Association and the United States Department of Agriculture to say: 'You've got to go on a low-fat diet.' They failed to take into account that when people do that, they increase their carbohydrates."

Atkins’ wonderland diet books say yes to bacon, eggs, and lobster dripping with butter and tell readers to lay off the bread and fruit. Slashing carbohydrates and sticking to protein and fat, Atkins claimed, prompts the body to burn fat through a metabolic process known as ketosis. Another purported advantage: Remaining in near ketosis makes it easier for people to control hunger.

In the post-Atkins era, pork rinds have become a snack sensation, egg consumption has risen, and "doing Atkins" is now synonymous with adhering to a high-protein, low-carb diet. To be sure, Americans are filling up on carbohydrates like pasta, potatoes, and bread. In the early '70s we ate 136 pounds (62 kilograms) of flour and cereal products per capita, and now it's 200 pounds (91 kilograms). Most of those products are highly processed grains, like white bread, that are low in fiber and absorbed into the bloodstream more quickly than high-fiber whole grains. Such foods have a high glycemic index, which means they prompt a sharp spike in glucose and trigger a corresponding spike in insulin production from the pancreas. Atkins and other advocates of low-carbohydrate diets claim that surges in insulin cause blood sugar to plummet, which in turn creates cravings for more carbs—and on and on in a spiraling raise-you-one war between glucose and insulin. The trouble is, research doesn't back that up: Low blood sugar hasn't been directly linked to hunger. And unless you have diabetes, blood sugar remains generally stable anyway.

Not everyone has converted to the Atkins gospel. Dean Ornish, director of the Preventive Medicine Research Institute in Sausalito, California, is one of the original advocates of a low-fat diet as a way to lower heart disease risk. He contends that following Atkins's diet might help you lose weight in the short run, but at the cost of "mortgaging your health." He cites an increased risk of breast cancer, prostate cancer, and heart disease, not to mention headaches, constipation, and even bad breath as the price you pay for the Atkins diet.

"Atkins is right about us eating too many simple carbohydrates," he says. But Ornish argues the solution is to replace them with complex carbohydrates like whole grains and vegetables, not more fat. "Atkins gets into trouble when he says to eat bacon and go into ketosis. It's a toxic state. Look, I'd love to tell people it's OK to eat bacon and sausage, but it's not. You can lose weight in ways that aren't good for you. Smoking causes you to lose weight, as do amphetamines. But it's not just about losing weight, it's losing weight in a way that is helpful. There are no long-term studies to support this diet."

A month after his death, the New England Journal of Medicine reported that in the short run, people on the Atkins diet did lose more weight than those on a low-fat diet, and there was no real difference in cholesterol between the two groups. The catch: Those on Atkins started regaining weight after six months, and by year's end were on par with the comparison group. The jury is still out on the diet's long-term effects, but the National Institutes of Health is funding a five-year study that may render a verdict.

If even the experts can't agree which diet is best, who are we supposed to believe?

"Me, of course," says Marion Nestle, professor of nutrition, food studies, and public health at New York University. "Beyond that, how about using some common sense? It's a simple matter of eating fewer calories. But nobody wants to talk about calories because doing so does not sell books." She's right. The government recommends 1,600 calories a day for the average sedentary woman and 2,200 for men. In 2000 our reported per capita daily calorie consumption was 1,877 for women and 2,618 for men—roughly 300 calories more than we need.

So in one sense, the obesity crisis is the result of simple math. It's a calories in, calories out calculation. The First Law of Fat says that anything you eat beyond your immediate need for energy, from avocados to ziti, converts to fat. "A calorie is a calorie is a calorie," says Lawrence Cheskin, director of the Johns Hopkins Weight Management Center, whether it comes from fat, protein, or carbohydrate. Cheskin, who is six foot one (1.85 meters) and weighs 160 pounds (72.8 kilograms), has never had a weight problem himself. "Who said life is fair?" he observes.

The Second Law of Fat: The line between being in and out of energy balance is slight. Suppose you consume a mere 5 percent over a 2,000-calorie-a-day average. "That's just one hundred calories; it's a glass of apple juice," says Rudolph Leibel, head of molecular genetics at Columbia University College of Physicians and Surgeons. "But those few extra calories can mean a huge weight gain." Since one pound (.45 kilograms) of body weight is roughly equivalent to 3,500 calories, that glass of juice adds up to an extra 10 pounds (4.5 kilograms) over a year. Alternatively, you'd gain 10 pounds (4.5 kilograms) if, due to a more sedentary lifestyle—driving instead of walking, taking the escalator instead of the stairs—you started burning 100 fewer calories a day.

"We know people get fat by overeating slightly more than they burn, but we don't know why they do it," Leibel says. "I'm convinced our overeating is not willful or the result of a deranged upbringing. It's the genes talking, but it's a very complicated language. Genetics are everything."

**Cutting Back On Carbs, Not Fat, May Lead To More Weight Loss**

**by ALLISON AUBREY**

[**http://www.npr.org/blogs/thesalt/2014/09/01/344315405/cutting-back-on-carbs-not-fat-may-lead-to-more-weight-loss**](http://www.npr.org/blogs/thesalt/2014/09/01/344315405/cutting-back-on-carbs-not-fat-may-lead-to-more-weight-loss)

We've [reported](http://www.npr.org/blogs/thesalt/2014/03/31/295719579/rethinking-fat-the-case-for-adding-some-into-your-diet) a lot this year about how there's a major rethinking of fat happening in the U.S.

Turns out, eating foods with fat — everything from avocados and nuts to [dairy fat](http://www.npr.org/blogs/thesalt/2014/02/12/275376259/the-full-fat-paradox-whole-milk-may-keep-us-lean) — doesn't make us fat. But eating too many carbohydrates — particularly the heavily refined starches found in bagels, white pasta and crackers — does our collective waistlines no favors.

A new study [published](http://annals.org/article.aspx?doi=10.7326/M14-0180) in the *Annals of Internal Medicine* adds to the body of evidence that cutting back on carbs, not fat, can lead to more weight loss. Researchers at Tulane University tracked two groups of dieters for one year. The participants ranged in age from their early 20s to their mid-70s and included a mix of African-Americans and Caucasians.

The low-carb group, which reduced their carb consumption to about 28 percent of their daily calories, lost almost three times as much weight as the low-fat dieters who got about 40 to 45 percent of their calories from carbs. The low-fat group lost about 4 pounds, whereas the low-carb group's average weight loss was almost 12 pounds. Participants in the two groups were eating about the same amount of calories. The study showed that modest reductions in carbohydrate consumption, down to about 28 to 30 percent of diet, could help tip the scales to weight loss.

The makeup of the low-carb group's diet was: **28 percent carbs; 40 to 43 percent fat (twice as much poly and monounsaturated compared to saturated); about 28 percent protein**

The makeup of the low-fat group's diet was: **28 percent fat; 40 to 45 percent carbs; 28 to 32 percent protein**

[Lydia Bazzano](http://tulane.edu/publichealth/epi/faculty_bazzano.cfm), one of the study authors and an associate professor of epidemiology at Tulane, says she had anticipated some difference in weight loss between the two groups. But the size of the effect — the nearly 8-pound difference in weight loss — was surprising, she says.

So, what kinds of meals were the low-carb dieters eating? "Typically in the morning they were eating eggs," says Bazzano. Other breakfast items included small portions of high-protein, high-fiber bread, with either butter or other kinds of oily spread.

As for lunch and dinner, the low-carb dieters ate lots of vegetables, salads and protein, including fish, chicken and some red meat. They had generous portions of healthy fats such as olive oils, canola and other plant-based oils. Fat accounted for a sizable part of their diet: from 40 percent to 43 percent of their total daily calories, including about 12 percent from saturated fat. Bazzano says with so many people still abiding by low-fat recommendations, a diet so high in fat might not sound like a good weight-loss strategy. "It's not the general perception," she says. But, in fact, there are a spate of studies that have come to the same conclusion about the benefits of swapping a low-fat, high-carb strategy for a pattern of eating that emphasizes healthy fats and lower carbohydrate consumption.

It's not just waistlines that respond. The low-carb, healthy fats approach has been shown to cut the risk of heart disease. One big [study](http://www.nejm.org/doi/full/10.1056/NEJMoa1200303) published in the *New England Journal of Medicine* found that a Mediterranean diet rich in olive oil cut the risk of heart attacks and strokes by 30 percent, compared to a low-fat diet. Research [published](http://www.ncbi.nlm.nih.gov/pubmed/22735432) last year in the *Journal of the American Medical Association*, which compared a low-glycemic-index diet — which minimizes refined starches — with a more traditional low-fat diet, also documented advantages. "We saw improvements in triglycerides, [good] cholesterol, and the possibility of lower chronic inflammation" among the lower carb group, *JAMA* study author [David Ludwig](http://www.childrenshospital.org/researchers/david-ludwig) of Harvard Medical School and Boston Children's Hospital told us.

Here's the fascinating part: Ludwig also found that when people stopped eating so many refined carbohydrates, they burned off about 150 more calories per day, compared to those eating a higher carb, lower fat diet.

"Too much refined carbohydrates — white bread, white rice, potato products — all the foods that crept into our diets as we've followed the low-fat craze has undermined our metabolism," says Ludwig. In other words, the high-carb, low-fat pattern of eating "caused us to become hungrier and burn off fewer calories," he says.

What's happening in the body when we follow this pattern of eating is still the subject of much research, but Ludwig says the thinking goes like this: Eating too many carbs can overstimulate the release of insulin and direct more calories into storage in the fat cells. "It's a double-whammy for weight gain," Ludwig says. "We've been told for decades that if you don't want fat on your body, don't put fat into your body. It's a very appealing notion, but the problem is it's wrong."

**7th Grade Article Summary: Article Title:**

1. What is the main idea of this article? Why did you think that this was the main idea?
2. Compare/Contrast the benefits and disadvantages of Low Fat/High Carbohydrate vs High Fat/Low Carbohydrate Diets using two T charts:

Think of two more questions to ask and answer for the class regarding your article:

3.

4.