



## The Harvard Heart Letter

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### Comparing The Pyramids *For the person who just wants to “eat right,” the field of nutrition is often complex, confusing, and contradictory.*

The US Department of Agriculture created its Food Guide Pyramid to make healthy eating simple. At the top of the USDA's Pyramid, in a category labeled “Use Sparingly,” sit fats and oils. At the bottom, a recommended 6–11 daily servings of carbohydrates (such as bread, cereal, rice, and pasta) form the foundation. Since the Food Guide Pyramid was first unveiled, however, new information has steadily eroded the basis of its dietary recommendations.

Unfortunately, “the Pyramid was built on less-than-solid scientific ground and has never been updated,” says Walter C. Willett, professor and chair of nutrition at the Harvard School of Public Health. “By ignoring the wealth of evidence on healthy eating, it represents a missed opportunity to improve the health of all Americans.”

Frustrated by the USDA Pyramid, Willett and his colleagues have built a new Healthy Eating Pyramid based on carefully conducted scientific research. Many of its ideas have been tested in ongoing long-term studies of 170,000 nurses and health professionals. And this new pyramid turns the old one upside down.

### Not All Fats Are Bad

Our fear of dietary fat began in the 1950s when an extensive survey of health and eating habits in the US, Japan, and several European countries showed a connection between high intake of saturated fat and high rates of heart disease.

Shortly thereafter, researchers from the legendary Framingham Heart Study reported that high cholesterol levels were directly linked with the development of atherosclerosis (fatty deposits in the arteries).

Your body needs cholesterol to build cell membranes, make bile acids for digestion, and form essential hormones such as testosterone and estrogen. It is shuttled through the blood in a variety of vehicles. Low-density lipoproteins (LDL) deliver fat and cholesterol from the liver to tissues throughout the body. High-density lipoproteins (HDL) do just the opposite, scavenging cholesterol from tissues and returning it to the liver. If your body makes too much cholesterol, or can't sponge up the excess, it accumulates inside the walls of arteries and triggers changes that can lead to a heart attack, stroke, or other forms of cardiovascular disease.

Because eating saturated fat can boost cholesterol, many experts were convinced that the “smoking gun” had been found. But while the links between dietary fat, cholesterol, and heart disease seemed simple at first, they evolved into a complex tapestry of factors. We now know that



Fill your cart with fruits, vegetables, and whole grains.

certain types of fat promote heart disease, while other types of fat actually **protect** you from heart disease.

In general, eating *saturated fats*, which are abundant in red meat and dairy products, and *trans fats*, which are found in some margarines and foods containing partially hydrogenated vegetable oil, increases total cholesterol and so increases the chances of developing heart disease. Eating other kinds of fats, though, protects against heart disease.

**Polyunsaturated fats** — such as those found in canola, soybean, and other plant oils or in fatty fish such as salmon and tuna — decrease total cholesterol, **while**



**monounsaturated fats, like those found in olive oil, decrease LDL and increase HDL. The unsaturated fats known as omega-3 fatty acids, which are found in fish, flaxseed, walnuts, and oils such as canola and unhydrogenated soybean oil, also protect the heart from potentially deadly erratic rhythms.**

## Not All Carbohydrates Are Good

The types of carbohydrates you eat are as important as the kinds of fat you eat when it comes to preventing diabetes, heart disease, and other chronic illnesses.

Carbohydrates contribute about half of all calories in the average American diet. Most come from just seven sources: bread; soft drinks and sodas; cakes, cookies, quick breads, and doughnuts; sugars, syrups, and jams; white potatoes; ready-to-eat cereals; and milk. **In other words, most of our carbohydrate calories come from sugars or highly refined grains.**

These carbohydrate sources are troublesome for two reasons:

First, easily digested carbohydrates can increase levels of LDL (bad) cholesterol and decrease levels of HDL (good)

cholesterol, known risk factors for heart disease.

Second, as the body digests refined carbohydrates, blood sugar rises rapidly and significantly. The pancreas, frantic to get this surplus of sugar to the muscle and other tissues, churns out large quantities of insulin. In a lean, active person, this isn't a big deal. But the tissues in an inactive, overweight person eventually become resistant to the effects of insulin.

The pancreas keeps pumping out this hormone, but it has little effect on the cells, so blood sugar remains persistently elevated. This is type 2 diabetes. People with diabetes are at high risk for cardiovascular disease as well as a host of other long-term nerve, kidney, and visual problems.

**Eating whole-grain and unrefined carbohydrates smoothes this sugar-insulin roller coaster.** Because it takes longer for the digestive system to break these carbohydrates into sugar molecules, blood sugar and insulin levels rise more slowly and peak at lower levels.

## Comparing the Pyramids



How does this advice stack up against that embodied in the USDA Food Guide Pyramid? Using the USDA's own score sheet, Willett and his colleagues found that among more than 170,000 nurses and male health professionals, the chances of developing a major illness or dying were about the same for those who did not follow the Food Guide Pyramid and the associated Dietary Guidelines for Americans as for those who did. In contrast, almost 85,000 nurses whose lifestyles were consistent with the Healthy Eating Pyramid recommendations were an astonishing 83% less likely to have developed heart disease over a 14-year period.

## Putting It into Practice

While no food contains every single nutrient needed for good health, some pack more nutrients per calorie than others. Emphasize these foods, and the quality of your diet will improve right away. **The short-list of nutrient-dense foods includes whole grains, fruits, and most vegetables.** Here are some quick ways to get started:

**Add dark leafy greens to salads, soups, and sandwiches.** As a rule of thumb, the darker the green, the more nutrition you'll get. For example, spinach contains everything from folate to fiber. Iceberg lettuce offers little more than water.

**Sprinkle wheat germ on cereals, casseroles, and yogurt.** Two tablespoons of wheat germ will add nearly 2 grams of fiber for a mere 54 Calories. The toasted variety has a nuttier flavor.

**Substitute a whole grain (bulgur, wheat berries) for the traditional starch side dishes (for example, baked potato or white rice).** The whole grain options contain substantially more fiber and nutrients.

## Advice From The Healthy Eating Pyramid

The Healthy Eating Pyramid is as easy to use as the USDA's Food Guide Pyramid.

There's no food to weigh, fat grams to count, or

food-exchange tables to follow.

It offers simple changes that can be made one at a time, with plenty of latitude for personal taste and choice.

Here are some ways to bring the principles of the Healthy Eating Pyramid to bear on your own good.

- **Watch your weight** and be as physically active as possible. When it comes to long-term health, keeping your weight stable and in the healthy range along with maintaining a physically active lifestyle are more important than the ratio of unsaturated to saturated fats or the types of carbohydrates in your diet.
- **Cut back on bad fats** and eat more good fats. The unsaturated fats in nuts, seeds, grains, fish, and liquid oils (olive, canola, soybean, sunflower, and others) are good for you, especially if you eat them in place of saturated and trans fats.
- **Cut back on refined grains** and eat more whole grains. Eating whole-grain foods such as brown rice, oatmeal, whole-grain breads, crackers, and pastas offers protection against type 2 diabetes, heart disease, some cancers, and gastrointestinal problems such as constipation and diverticulosis.
- **Let "5 a Day" be just a start.** A diet rich in fruits and vegetables can lower blood pressure, decrease the chances of having a heart attack or stroke, and help protect against some cancers and aging-related eye diseases such as cataracts and macular degeneration, the leading causes of vision loss among people over age 65.
- **Choose healthier sources of protein.** Protein from plants (beans, nuts, and seeds) is best.

**WARNING:** The Information in these articles is not intended to replace medical advice or treatment. Question about symptoms, specific dietary needs and medications, general or specific, should be discussed with your physician. The information in this article is for informational purposes only, and is not medical advice or a substitute for a physician's consultation and/or examination. Bring freedom and choice back to medicine by supporting [Americans for Free Choice in Medicine](http://www.afcm.org).  
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