

The Old and the New Food Pyramid

Foods	Old pyramid	New pyramid
Complex carbohydrates	Eat generous amounts	Minimize their consumption
Dairy products	Eat generous amounts	Limit to 1-2 servings a day
Healthy fats	Minimize their consumption	Recommended
Nuts and legumes	At least two servings a day	Eat moderate amounts
Potatoes	Eat generous amounts	Minimize their consumption
Poultry and eggs	At least two servings a day	Eat moderate amounts
Red meat	At least two servings a day	Minimize their consumption
Trans fats	Reduce their consumption	Do not appear
Vegetables and fruits	Eat generous amounts	Should be eaten in abundance

The Old Food Pyramid was released in 1992 in order to help people in the dietary choices that would maintain them in good health and reduce their risk of chronic disease. According to the recommendations, people should minimize their consumption of fats and oils but should eat six to 11 servings a day of foods rich in complex carbohydrates--bread, cereal, rice, pasta and so on. Complex carbohydrates consist of long chains of sugar units such as glucose and fructose; sugars contain only one or two units. Because of concerns that sugars offer nothing but "empty calories"--that is, no vitamins, minerals or other nutrients--complex carbohydrates form the base of the Old Food Pyramid. **It** also recommended generous amounts of vegetables (including potatoes, another plentiful source of complex carbohydrates), fruit and dairy products, and at least two servings a day from the meat and beans group, which include red meat with poultry, fish, nuts, legumes and eggs.

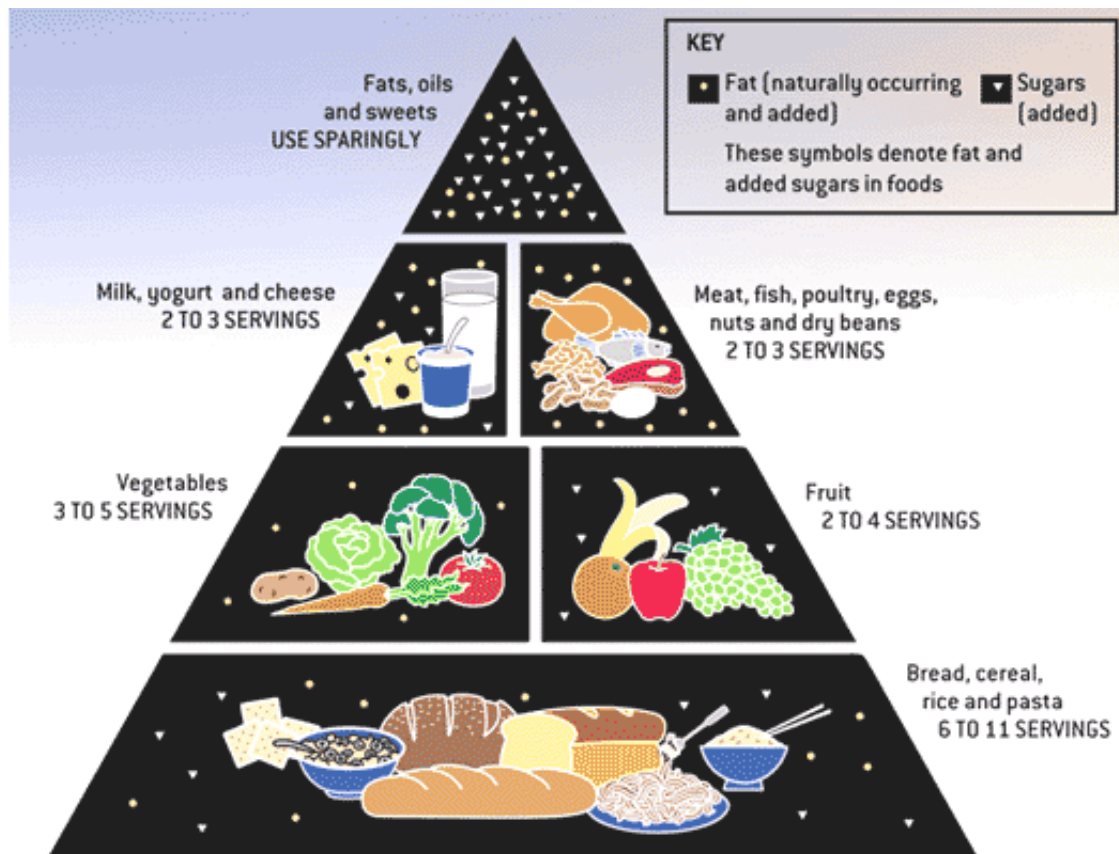
Since 1992 more and more research has shown that the Old Food Pyramid is grossly flawed. By promoting the consumption of all complex carbohydrates and avoiding all fats and oils, the Old Food Pyramid provides misleading guidance. **In short**, not all fats are bad for you, and by no means are all complex carbohydrates good for you. For **this reason**, we have prepared a New Food Pyramid that better reflects the current understanding of the relation between diet and health.

It is very likely that the Old Food Pyramid has some benefits, especially from a high intake of fruits and vegetables. And a decrease in total fat intake would tend to reduce the consumption of harmful saturated and trans fats. **But** the Old Food Pyramid could also lead people to eat fewer of the healthy unsaturated fats and more refined starches, **so** the benefits might be negated by the harm.

Another flaw in the Old Food Pyramid is its failure to recognize the important health differences between red meat (beef, pork and lamb) and the other foods in the meat and beans group (poultry, fish, legumes, nuts and eggs). High consumption of red meat has been associated with an increased risk of coronary heart disease, probably because of its high content of saturated fat and cholesterol. Red meat also raises the risk of type 2 diabetes and colon cancer.

Poultry and fish, in contrast, contain less saturated fat and more unsaturated fat than red meat does. Fish is a rich source of the essential omega-3 fatty acids as well. Studies have shown that people who replace red meat with chicken and fish have a lower risk of coronary heart disease and colon cancer. Eggs are high in cholesterol, but consumption of up to one a day does not appear to have adverse effects on heart disease risk (except among diabetics), probably because the effects of a slightly higher cholesterol level are counterbalanced by other nutritional benefits.

Many people have avoided nuts because of their high fat content, but the fat in nuts, including peanuts, is mainly unsaturated, and walnuts in particular are a good source of omega-3 fatty acids. Controlled feeding studies show that nuts improve blood cholesterol ratios, and epidemiological studies indicate that they lower the risk of heart disease and diabetes. Also, people who eat nuts are actually less likely to be obese; perhaps because nuts are more satisfying to the appetite, eating them seems to have the effect of significantly reducing the intake of other foods.



OLD FOOD PYRAMID

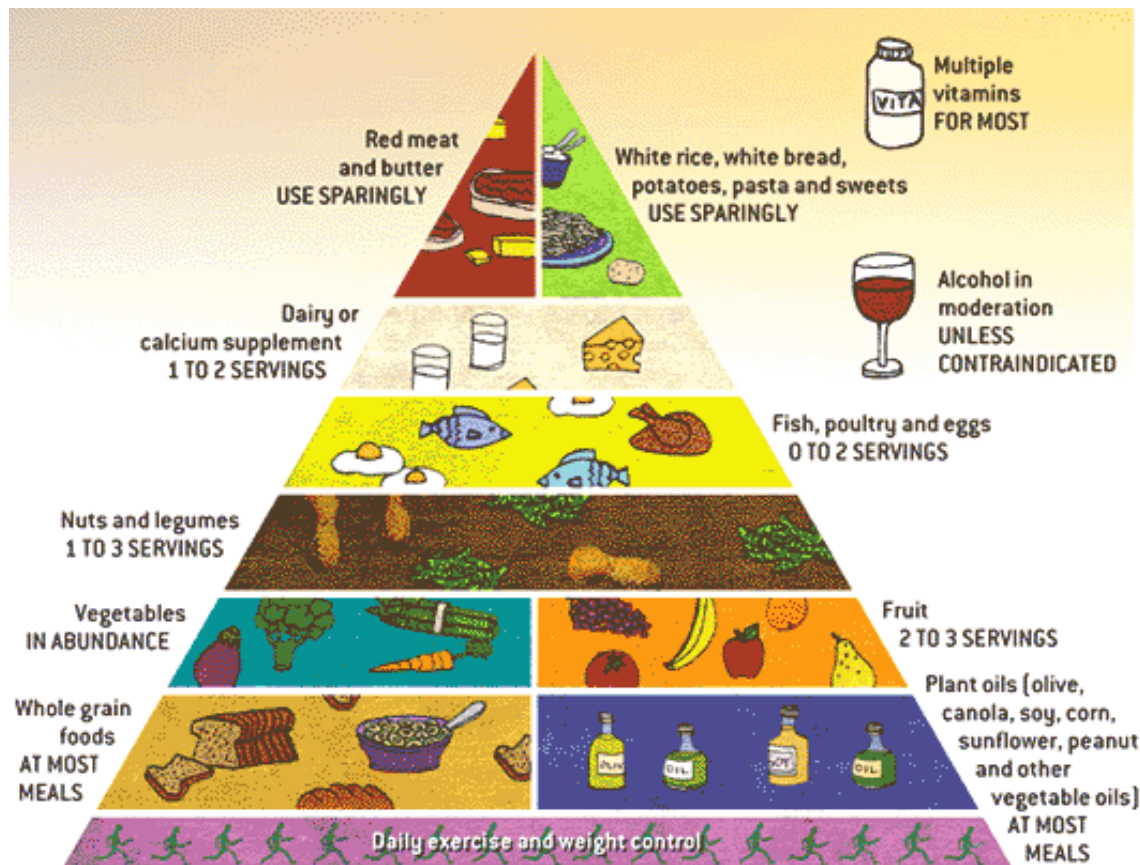
conceived by the U.S. Department of Agriculture was intended to convey the message "Fat is bad" and its corollary "Carbs are good." These sweeping statements are now being questioned.

For information on the amount of food that counts as one serving, visit www.nal.usda.gov:8001/py/pmap.htm

We have tried to develop a New Food Pyramid derived from the best available knowledge. Our revised pyramid emphasizes weight control through exercising daily and avoiding an excessive total intake of calories. This new pyramid recommends that the majority of one's diet should consist of healthy fats (liquid vegetable oils such as olive, canola, soy, corn, sunflower and peanut) and healthy carbohydrates (whole grain foods such as whole wheat bread, oatmeal and brown rice). **If** both the fats and carbohydrates in your diet are healthy, you probably do not have to worry too much about the percentages of total calories coming from each. Vegetables and fruits should also be eaten in abundance. Moderate amounts of healthy sources of protein (nuts, legumes, fish, poultry and eggs) are encouraged, **but** dairy consumption should be limited to one to two servings a day. The revised New Food Pyramid recommends minimizing the consumption of red meat and butter. Also, white bread, white rice, white pasta, potatoes and sugar. Why? Saturated fat--which abounds in red meat and dairy products--raises cholesterol levels in the blood. Refined carbohydrates, such as white bread and white rice, can be very quickly broken down to glucose, the primary fuel for the body. The refining process produces an easily absorbed form of starch--which is defined as glucose molecules bound together--and also removes many vitamins and minerals and fiber. **Thus**, these carbohydrates increase glucose levels in the blood more than whole grains do. And eating a boiled potato raises blood sugar levels higher than eating the same amount of calories from table sugar. Because potatoes are mostly starch, they can be rapidly metabolized to glucose. A rapid increase in blood sugar stimulates a large release of insulin, the hormone that

directs glucose to the muscles and liver. As a result, blood sugar declines suddenly. High levels of glucose and insulin can have negative effects on cardiovascular health, raising triglycerides and lowering HDL (the good cholesterol). The quick decline in glucose can also lead to more hunger after a carbohydrate-rich meal and thus contribute to overeating and obesity.

5



NEW FOOD PYRAMID

outlined by the authors distinguishes between healthy and unhealthy types of fat and carbohydrates. Fruits and vegetables are still recommended, but the consumption of dairy products should be limited.

Trans fat does not appear in the New Food Pyramid, because it has no place in a healthy diet. A vitamin supplement is suggested for most people, and moderate alcohol consumption can be an option (if not contraindicated by specific health conditions or medications). More and more studies are showing the benefits of moderate alcohol consumption (in any form: wine, beer or spirits) to the cardiovascular system. **However**, drinking no alcohol is clearly better than drinking too much.

We have found that men and women who were eating in accordance with the New Food Pyramid had significant reductions in the risk of cardiovascular disease--up to 30 percent for women and 40 percent for men. Following the New Food Pyramid's guidelines did not, however, lower the risk of cancer. Weight control and physical activity, rather than specific food choices, are associated with a reduced risk of many cancers.

Uncertainties still affect our understanding of the relation between diet and health, and more research is needed to examine the role of dairy products, the health effects of specific fruits and vegetables, and the risks and benefits of vitamin supplements.