



Alliance for Potato
Research & Education

Frequently Asked Questions About French Fries

OBESITY

Are French fries fattening?

No. There is nothing unique about the calories from French fried potatoes that make you fat. French fried potatoes – like all other calorie-containing foods and beverages – contribute calories to an individual’s diet. Research shows that French fried potatoes contribute just 1.5% of the calories in the American diet. Most (98.5%) of our calories are coming from other foods and beverages.¹

The top sources of calories in the American diet are: grain-based desserts (cakes, cookies, brownies, doughnuts and so forth), yeast breads, chicken and chicken mixed dishes, mixed dishes and soft drinks. In fact, all types of fried potatoes combined don’t make the top 10 sources of calories in the diet.²

Among children ages 2-18 years, the data show that grain-based desserts are the top contributor of calories. A total of 22% of total calories come from desserts, soft drinks, fruit drinks and candy in the diets of children and adolescents.² Fried white potatoes rank 16th in caloric contributions to children’s diets, and provide far fewer calories to the average child’s diet than the top caloric contributors.

Do French fries contribute any important nutrients to the diet?

Like all forms of potatoes, French fries deliver meaningful amounts of important nutrients such as potassium and dietary fiber, as well as other vitamins and minerals. Nearly all Americans fail to meet dietary recommendations for potassium (97% not meeting goal) and dietary fiber (95% not meeting goal). Similarly, Canadians are falling far short of potassium goals – 96.5% of women and 85% of men ages 31 – 50 had intakes below the Adequate Intake level.³ Gram-for-gram, French fried potatoes provide more potassium than most other vegetables.⁴ A small (71 g) serving of French fried potatoes provides 411 milligrams (mg) of potassium and almost 3 grams (g) of dietary fiber.

Data from NHANES showed that potatoes (including French fries) contributed at least 10% of the dietary fiber, vitamin B₆ and potassium to the diets of adults ages 19 and older, and at least 5% of 7 additional essential nutrients (thiamin, niacin, phosphorus, magnesium, vitamin K, iron and copper).⁵

¹ Storey ML, Anderson PA. Contributions of white vegetables to nutrient intake: National Health and Nutrition Examination Survey, 2009-2010. *Adv Nutr* 2013; 4: 345S-350S.

² U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*. 7th edition, Washington, DC: U.S. Government Printing Office, December 2010. Chap 2, pp.12

³ Tanase CM, Koski KG, Laffey PJ, Cooper MJ, Cockell KA. Canadians continue to consume too much sodium and not enough potassium. *Can J Public Health* 2011; 102(3): 164-168.

⁴ U.S. Department of Agriculture, Agricultural Research Service. 2012. USDA National Nutrient Database for Standard Reference, Release 25. Nutrient Data Laboratory Home Page, <http://www.ars.usda.gov/ba/bhnrc/ndl>

⁵ Freedman MR and Keast DR. Potatoes, including French fries, contribute key nutrients to diets of U.S. Adults: NHANES 2003-2006. *Journal of Nutritional Therapeutics* 2012; 1: 1-11.

Are French fried potatoes high in calories?

French fried potatoes – like all other foods– contribute calories and choosing a portion that is appropriate for the individual is important. Small (71 g) and medium (117 g) servings of deep-fried French fried potatoes provide 222 and 365 calories, respectively. For someone consuming a 2000-calorie diet, a small serving of French fried potatoes contributes 11% of calories; a medium serving contributes 18% of total calories. French fries also provide meaningful amounts of key nutrients, including potassium, fiber, magnesium, and vitamins B₆ and C. Today, there are many options available for those who wish to manage their calorie intake, such as oven-baked and low-fat French fries. French fries can certainly be included as part of an overall healthy, balanced diet, and research shows they are eaten in moderation.

Fast Food French Fries, small serving, 71 grams ⁶	
Calories	222 calories
Fat	10 grams
Saturated fat	1.6 grams
Trans fat	0 grams
Cholesterol	0 mg
Potassium	410 mg (14% DV)
Dietary Fiber	2.7 grams (10% DV)
Magnesium	25 mg (6% DV)
Vitamin B ₆	0.264 mcg (13% DV)
Vitamin C	3.3 mg (6% DV)

Oven-Baked Fries, small serving, 74 grams ⁶	
Calories	116 calories
Fat	3.6 grams
Saturated fat	0.8 grams
Trans fat	0 grams
Cholesterol	0 mg
Potassium	330 mg (10% DV)
Dietary Fiber	1.9 grams (8% DV)
Magnesium	19 mg (5% DV)
Vitamin B ₆	0.136 mcg (6% DV)
Vitamin C	9.38 mg (16% DV)

Are French fries served as part of school meal programs?

You might be surprised to learn that about 90% of the French fries served in schools today are oven-baked, and meet the USDA meal pattern guidelines for calories and sodium. A serving (74 g) of oven-baked fries provides just 116 calories, 3.6 grams fat (0.8 g saturated) and delivers potassium (10% DV), fiber (8% DV), vitamin C (16% DV), magnesium (5% DV) and vitamin B₆ (6% DV).

According to data from NHANES, on average, less than 1% of children's daily calorie intake in schools comes from white potatoes, including French fries. Potatoes in all forms provide a great-tasting, affordable nutrient package that enables schools to meet USDA guidelines for nutrient intake and for vegetable consumption in school meals.

⁶U.S. Department of Agriculture, Agricultural Research Service. 2012. USDA National Nutrient Database for Standard Reference, Release 25. Nutrient Data Laboratory Home Page, <http://www.ars.usda.gov/ba/bhncr/nd/>

OILS/FATS

Has anyone independently tested the oils used to fry French fried potatoes to verify the fat content?

Yes. Over the last several years, the oils used to fry potatoes in most fast food restaurants have changed and nearly all oils used are *trans* fat-free. A 2013 Centers for Disease Control study showed that *trans* fatty acids were reduced by 88% in French fries and other potato products from 2007 to 2011.⁷ A study published in 2012 by scientists from the U.S. Food and Drug Administration verified this change.⁸ The data showed that there was less than 0.5 gram *trans* fat in 5 out of 7 samples of French fried potatoes; 6 out of 7 samples provided less than one gram *trans* fats.

Most of the fat in French fried potatoes is comprised of monounsaturated fatty acids (MUFA) and polyunsaturated fatty acids (PUFA). In fact, with the new oils used by restaurants today, French fried potatoes are among the top six sources of desirable monounsaturated fats in the diets of children and adults.⁹

Do French fries contain *trans* fats?

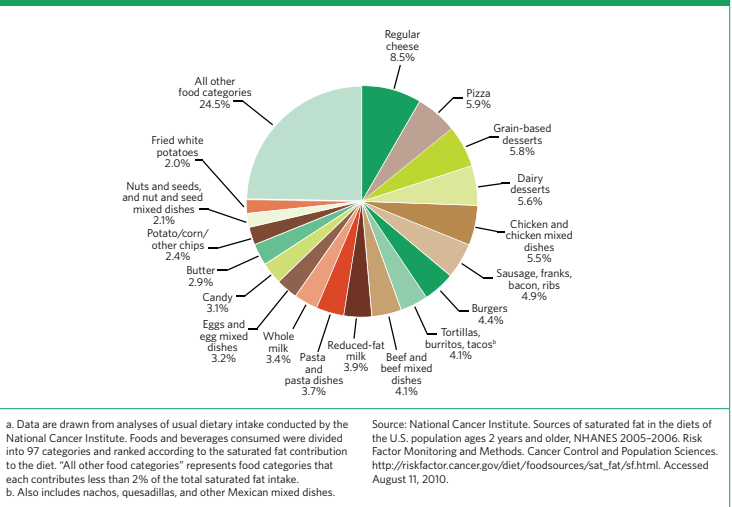
Improvements in cooking oils and preparation methods have essentially eliminated French fries as a source of *trans* fatty acids in the diet. Over the past several years, the food industry has significantly transformed their cooking oils. Today, the oils used to cook French fried potatoes, including in quick serve restaurants, are now predominately *trans*-fat-free, all-vegetable oils that contain primarily mono- and polyunsaturated fats.

What is the saturated fat content of French fries?

You might be surprised to learn that French fried potatoes, including both oven-baked and deep-fried, are not even among the top 10 sources of saturated fat in the diet.¹⁰

While it is true that the primary fats that raise (bad) LDL-cholesterol levels in the blood are saturated fat and *trans* fats, the oils used

FIGURE 3-4. Sources of Saturated Fat in the Diets of the U.S. Population Ages 2 Years and Older, NHANES 2005-2006*



⁷Otite FO, Jacobsen MJ, Dahmubed A, Mozaffarian D. Trends in *trans* fatty acid reformulations of U.S. supermarket and brand name foods from 2007 through 2011. *Prev Chronic Dis* 2013; 10:120198

⁸Tyburczy C, Delmonte P, Fardin-Kia AR, Mossoba MM, Kramer JKG, Rader JI. Profile of *trans* fatty acids (Fas) including *trans* polyunsaturated Fats in representative fast food samples. *J Agric Food Chem* 2012; 60: 4567-4577.

⁹Sources of Oleic Acid Among the US Population, 2005-2006. Risk Factor Monitoring and Methods Branch Website. Applied Research Program. National Cancer Institute. <http://riskfactor.cancer.gov/diet/foodsources>. Updated May 21, 2010. Accessed May 6, 2013.

by manufacturers to fry potatoes are now primarily made up of monounsaturated and polyunsaturated fats and are either very low in *trans* fat or *trans* fat-free. Today, nearly all restaurant fries are fried in low *trans* fat or *trans* fat-free oils. Most fries prepared in schools and homes are oven-baked, with no added oil.

The top 10 sources of saturated fat in the American diet are: 1) regular cheeses [8.5%]; 2) pizza [5.9%]; 3) grain-based desserts [5.8%]; 4) dairy desserts [5.6%]; 5) chicken and chicken mixed dishes [5.5%]; 6) sausages, franks, bacon and ribs [4.9%]; 7) burgers [4.4%]; 8) tortillas, burritos, and tacos [4.1%]; 9) beef and beef mixed dishes [4.1%]; and 10) reduced fat milk [3.9%]. Dairy products are the biggest source of saturated fat in the diet; regular cheese, fluid milk and butter contribute 8.5%, 7.3% and 2.9%, respectively, to the diet. Fried white potatoes ranked 18th, contributing just 2% of the saturated fat in the diet.¹⁰

NUTRIENT DENSITY

Do the nutrients in a potato disappear when you fry it to make French fries?

Many of the important vitamins and minerals remain in the French fried potato and, in some cases, are actually higher in the French fry. For example, frying increases the concentration of potassium and fiber in potatoes, two nutrients that both Americans and Canadians of all ages don't consume enough of. You might be surprised to learn that gram-for-gram, French fried potatoes provide more potassium than many other commonly consumed vegetables.¹¹ A small (71 g) serving of French fried potatoes provides 222 calories, 411 mg potassium and 2.7 g dietary fiber, as well as 3 grams of protein and 13% of the Daily Value of Vitamin B₆, and 6% of the DV for Vitamin C and magnesium.

Isn't all of the nutrition in the skin of the potato?

The nutrients in the potato are not just skin deep. With or without skin, the potato provides key nutrients of concern. Data from the USDA Nutrient Data Laboratory show that while the skin of the white potato provides important nutrients, so does the white flesh of the potato.⁶ Even without the skin, a medium (173 g) baked potato provides 676 mg of potassium and 2.6 g of fiber (with skin, a potato provides 941 mg potassium and 3.6 grams fiber.)¹² A small (71 g) serving of French fried potatoes provides 411 mg of potassium and 2.7 g fiber.

Do French fries contain sodium?

Sodium is an essential nutrient; however, too much sodium in the diet may contribute to high blood pressure in salt-sensitive individuals. Most Americans consume more sodium than recommended, on average, about 3,400 mg per day versus the 2,300 mg recommended by the 2010 Dietary Guidelines. Similarly, the majority of Canadians exceed the upper limit for sodium for their age and sex.

¹⁰ U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*. 7th edition, Washington, DC: U.S. Government Printing Office, December 2010. Chap 3, pp.26

¹¹ Storey ML, Anderson PA. Contributions of white vegetables to nutrient intake: National Health and Nutrition Examination Survey, 2009-2010. *Adv Nutr* 2013; 4: 345S-350S.

¹² USDA Nutrient Database for Standard Reference, Release 25, 2012 for medium (173 g) white potato, baked

¹³ U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*. 7th edition, Washington, DC: U.S. Government Printing Office, December 2010. Chap 3, p. 22

Although French fries might taste salty, they are not among the top 20 sources of sodium in the diet.¹³ The top five sources are bread, chicken and chicken dishes, pizza, pasta and mixed pasta dishes, and cold cuts (deli and cured meats). A small (71 g) order of French fries (as ordered, without salt added at the table) provides 149 mg (6% DV) of sodium, which is less than a slice of bread or half of a hamburger bun. There are options available for those wishing to manage their sodium intake. For example, low-sodium frozen French fries can be purchased and prepared at home, and you can also request that no salt be added to fries served in restaurants. It's also important to note that French fries, like all forms of potatoes, are quite high in potassium, which helps counterbalance the effects of sodium on high blood pressure. Plus the potassium-to-sodium ratio of French fries is favorable, providing more potassium than sodium. A small (71 g) order of French fries provides 411 mg potassium or more than 10% of the DV.

CONSUMPTION

How many French fries are Americans consuming?

Potatoes in all forms, including French fries, are consumed well within current dietary guidance.

Research shows that, on average, Americans get about 1.5% of their calories a day from French fried potatoes.⁶ So, if the average person consumes 2,080 calories per day, French fried potatoes provide, on average, about 31 calories a day.⁶ NHANES survey data suggest that about 1 in 8 males and 1 in 10 females consumes French fries on a given day. According to NHANES, even those who consumed the most French fries (90th percentile and above) ate the equivalent of less than half of a small serving from a fast food restaurant, around 100 calories.

How many calories do children consume from French fried potatoes?

Data from the most recent National Health and Nutrition Examination Survey show that French fried potatoes provide a very small proportion of calories to the diets of young children. In fact, French fried potatoes provide 2% or less of the calories consumed by children 2-4 and 5-8 years old, yet they contribute important nutrients to the diet.¹⁴ Similarly, another recent study showed that the daily energy intake from French fried potatoes among children and adolescents ages 6-19 was just 45 calories per day, about 2% of total calorie intake. White potatoes in all forms provide a significant source of nutrients to the diets of children. A recent study among children and adolescents ages 2 to 18 who consumed potatoes demonstrated that potatoes, including French fried potatoes, provided a significant source of at least 10 essential vitamins and minerals in the diet, including dietary fiber (19%), potassium (15%), vitamin B₆ (15%), vitamin K (14%), magnesium (11%), copper (10%) and vitamin E (10%).¹⁵

¹⁴ Storey ML, Anderson PA. Contributions of white vegetables to nutrient intake: National Health and Nutrition Examination Survey, 2009-2010. *Adv Nutr* 2013; 4: 345S-350S.

¹⁵ Freedman JR, Keast DR. White potatoes, including French fries, contribute shortfall nutrients to children's and adolescents' diets. *Nutr Res* 2011; 31: 270-277.

¹⁶ Olsho LEW, Fernandes MM. Relationship of white potato to other vegetable consumption by schoolchildren and adolescents in the USA: National Health and Nutrition Examination Survey, 2003-2008; 2013; Public Health Nutrition, doi:10.1077/S1368980013000037