

The Skinny on Dietary Fats

Frito-Lay has a long-standing commitment to health and wellness. As part of that commitment, Frito-Lay has relied on sound science to help shape the products we make to meet consumers' desire for healthier snacks. The company has made significant strides in the area of healthy oils, and specifically the types of fats in the product portfolio.

In the mid 80s, the company switched out of tropical oils to reduce the saturated fats. In addition, we developed a variety of reduced, low and no fat offerings including Reduced Fat Ruffles potato chips, the Light line and Baked! Lay's. In 2003, Frito-Lay eliminated trans fats based on the compelling evidence that these fats have a negative impact on risk factors for heart disease. Once Cheetos, Doritos, and Tostitos chips and snacks converted to corn oil, Frito-Lay's entire snack portfolio had 0 grams of trans fat.

Research suggests not only should we be reducing or eliminating bad fats like trans and saturated fats, but we should be adding more good fats into our diets. Experts consider mono- (MUFA) and polyunsaturated (PUFA) fats as the "good" fats. Scientific research shows that mono- and polyunsaturated fats have heart health benefits that include lowering total and LDL ("bad") cholesterol and triglycerides, a marker for heart disease. Unlike these good fats, saturated and trans fats raise cholesterol levels.

Based on research and the greater emphasis on good fats, Frito-Lay decided to switch to NuSun sunflower oil in its leading potato chips brands. By converting to sunflower oil, Frito-Lay is reducing the saturated fat in Lay's and Ruffles potato chips by more than 50 percent, while increasing the good fats, MUFA and PUFA, and continuing to have 0 grams of trans fat.

The Science Behind NuSun

According to leading researcher Penny Kris-Etherton, PhD, RD, from The Pennsylvania State University, "Research suggests that balancing fats in the diet by removing unhealthy trans and saturated fats and adding healthier mono- and polyunsaturated fats may be *the most beneficial* way to manage heart health."

A study by Dr. Kris-Etherton demonstrated the potential positive impact that using NuSun sunflower oil could have on heart health by replacing saturated fat with unsaturated fats. The study compared three diets:

One diet included NuSun sunflower oil, another olive oil and the third was an "average" American diet.

In the study, the NuSun sunflower oil diet decreased both total and LDL cholesterol levels when compared with the average American diet, and when compared with the olive oil diet. The olive oil diet, compared to the average American diet, *did not* reduce total and LDL cholesterol.

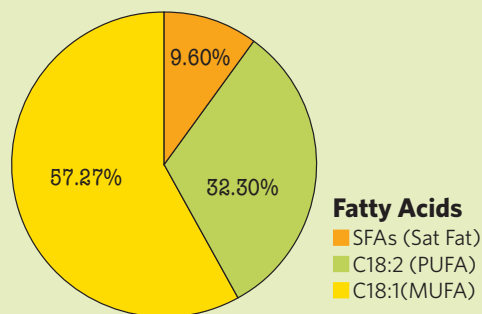
The authors concluded that the greater total and LDL cholesterol-lowering effect of the NuSun sunflower oil diet was due to its higher PUFA content compared with the olive oil diet. Sunflower oil is also lower in saturated fat than olive oil.

Why Sunflower Oil?

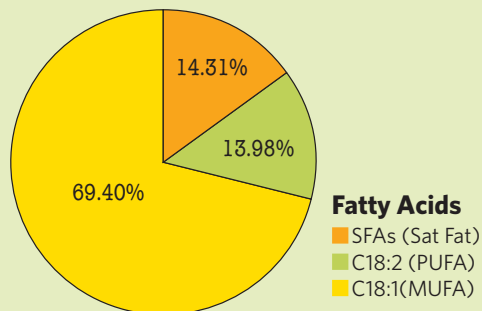
Sunflower oil is made up largely of the good fats and small amounts of saturated fats. By using NuSun sunflower oil, Frito-Lay has reduced saturated fat in the diet and replaced them with MUFA and PUFA, which are heart healthy.

Starting in 2006, Frito-Lay is using NuSun sunflower oil in Lay's and Ruffles. Lay's Kettle Cooked, Miss Vickie's, its Natural line of potato chips and SunChips multigrain snacks already are made with sunflower oil.

NuSun Sunflower Oil



Olive Oil

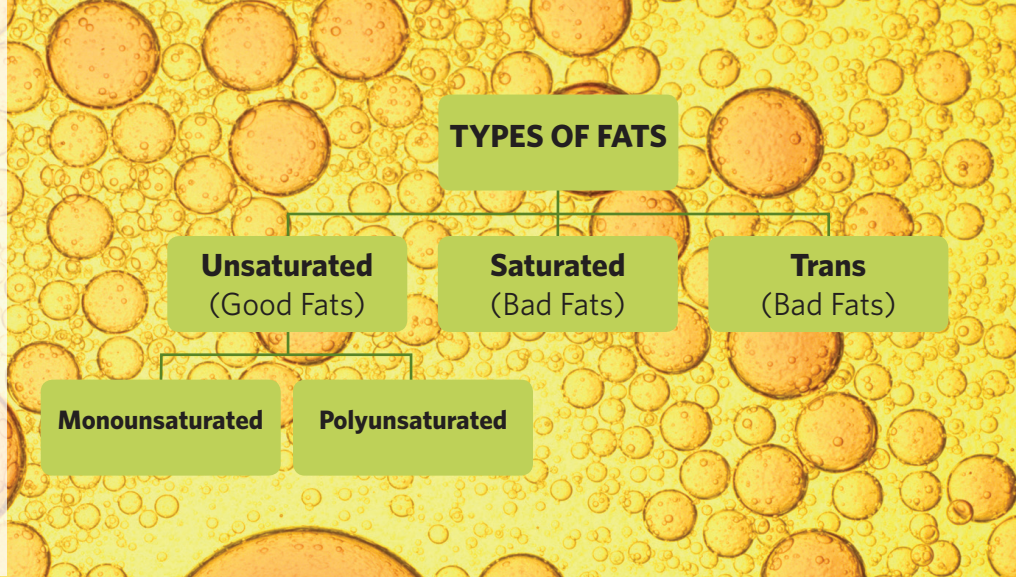


What you should know

Consumers should look to add more foods to their diets that are high in "good" fats, mono- and polyunsaturated fats and lower in saturated and trans fats. Frito-Lay's conversion to NuSun sunflower oil for its leading potato chips lines will help consumers improve the balance of good fats to bad fats in their diets, and will remove nearly 60 million pounds of saturated fat from the American diet each year.

Fat 101

High intakes of fat are widely thought to increase the risk for developing certain chronic diseases. Yet, government dietary recommendations suggest that we should put more focus on the type of fat we eat rather than the amount of fat. In fact, scientific evidence supports the premise that changing the types of fats in the diet, and not necessarily the amount, can have significant health benefits.



Before Change to NuSun Sunflower Oil

Average Saturated Fat Intake for Men and Women

CATEGORY	GRAMS/DAY	%TOTAL
Cheese	3.34	13.1
Beef	2.98	11.7
Milk	1.99	7.8
Oils	1.25	4.9
Ice cream/sherbet/frozen yogurt	1.2	4.7
Cake/cookies/quickbreads/donuts	1.2	4.7
Butter	1.17	4.6
Other fats (shortening & animal fat)	1.12	4.4
Salad dressings/mayonnaise	.94	3.7
Poultry	.92	3.6
Margarine	.82	3.2
Sausage	.79	3.1
Potato chips/corn chips/popcorn	.74	2.9
Yeast breads	.66	2.6
Eggs	.59	2.3
Candy	.50	2.0
Hot dogs	<0.5	<0.2

After Change to NuSun Sunflower Oil

Average Saturated Fat Intake for Men and Women

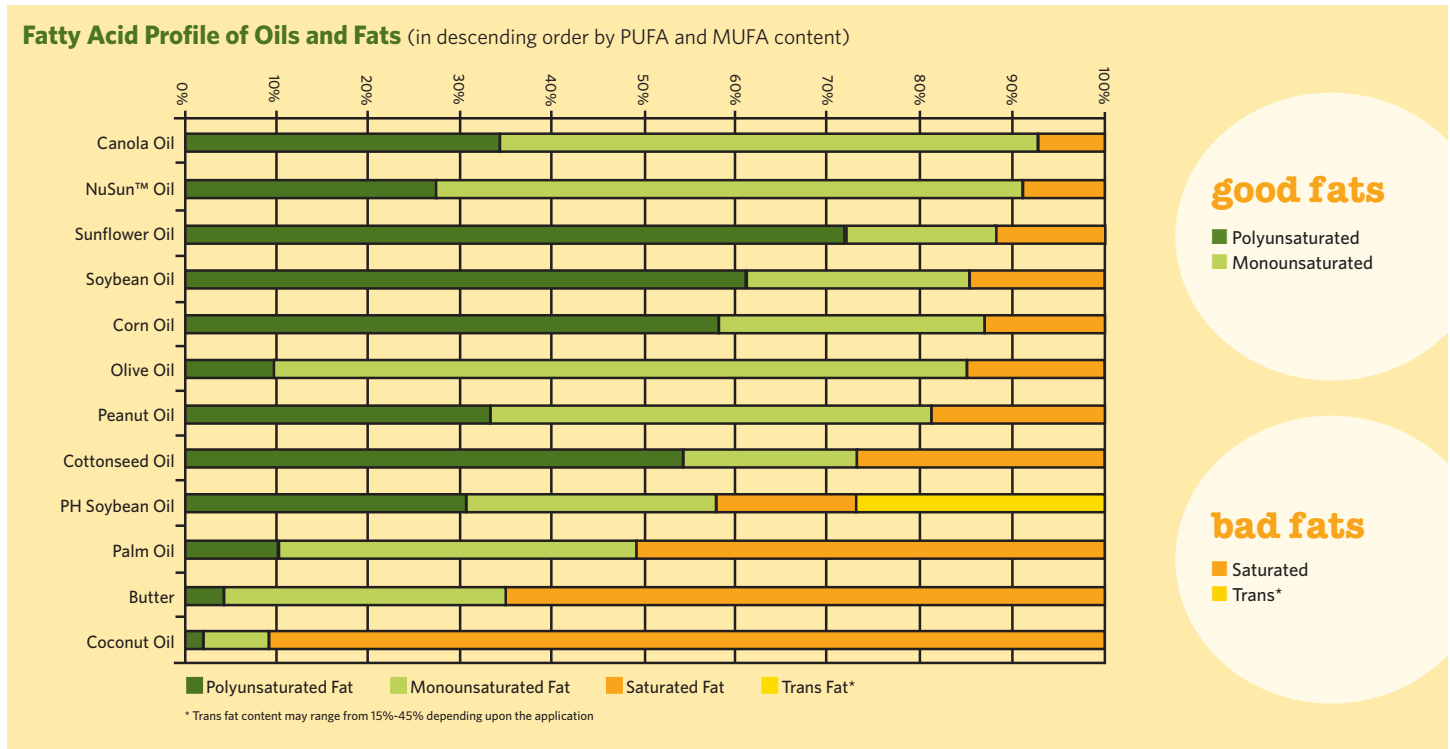
CATEGORY	GRAMS/DAY	%TOTAL
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Potato chips/corn chips/popcorn	.50	2.0
Hot dogs	<0.5	<0.2

By using NuSun sunflower oil, Frito-Lay has reduced the amount of saturated fat in the American diet by nearly 60 million pounds and replaced them with heart healthy fats

Questions & Answers

I've always heard olive oil was the healthiest oil. Is this true?

Oils always contain a combination of saturated and unsaturated (mono- and polyunsaturated) fats, and are generally labeled according to the type of fat that is highest in concentration. For example, olive oil is referred to as a monounsaturated oil because of the high content of those fatty acids in the oils.



It's the combination and amount of fats which makes up the oil that determines whether it's healthy or not. While certainly olive oil is a healthy oil with a good fat mix — higher in unsaturated fats and lower in saturated fats — you may be surprised to learn that there are other oils that are healthier.

For example, Dr. Kris-Etherton and her colleague Amy Binkoski, PhD, RD found that substituting two tablespoons of NuSun sunflower oil daily in place of saturated fat had a larger cholesterol-lowering effect than substituting a similar amount of olive oil. The authors concluded that it is the balance of MUFAs and PUFAs, and the lower saturated fat content of NuSun that provided the benefit.

Why does Frito-Lay focus on oils?

Frito-Lay products are typically made up of three basic ingredients: corn or potato; healthy oil and salt and/or seasonings. In fact, 20 to 35% of our products are oil. Therefore we have been looking for the best possible oils to use in our products.

In particular we have been looking at the balance of fats in the oils we use – the commonly called “good fats” (mono- and polyunsaturated fats) and the bad fats (trans and saturated) – because government agencies and health organizations are putting more emphasis on type of fat rather than total amount of fat. It is these types of recommendations and sound science that help drive the decisions that Frito-Lay makes, such as switching to NuSun sunflower oil.

Here are current recommendations for fat intake from leading government agencies and health organizations

	United States Department of Agriculture (USDA) Dietary Guidelines	Institute of Medicine Dietary Reference Intakes (IOM DRI) 2002	National Cholesterol Education Program-Adult Treatment Panel III 2001	American Heart Association (AHA) Dietary Guidelines
Total Fat	20-35%	20-35%	25-35%	<30%
Saturated Fat	<10%	As low as possible	< 7%	<10%
MUFA	Most fat should come from MUFA and PUFA	Not specified	Up to 20%	Up to 15%
PUFA	Most fat should come from MUFA and PUFA	10% (5-10% from omega-6 PUFAs, 0.6-1.2% from omega-3 PUFAs)	Up to 10%	Up to 10%
Trans Fat	Limit intake	As low as possible	Keep intake low	Limit intake