

Fat Altered/Modified Products Market Survey and Consumer Education

By: Amanda Charles, Amy Gerber-Buchanan,
Bruna McPherson, Meghan Boda, Sarah Bonafede

Facts on Fats

- **What are they?**

- Fat are an essential part of our diet and is important for good health.
- Fat is the major storage form of energy in the body.
- Contains 9 calories per gram, while carbohydrates and protein each contain 4 calories per gram.
- Fatty acids are structured by both hydrocarbon chain length (short, medium, and long), how the bonds are positioned, and saturation status. The function is determined not only by the length but whether they contain double bonds.
 - *n-3 polyunsaturated fatty acids (PUFA)*
 - *n-6 polyunsaturated fatty acids (PUFA)*
 - *monounsaturated fatty acid (MUFA)*
 - *saturated fatty acid (SFA)*
 - *trans-fatty acid (TFA)*

Sources of Fat

- Found in plants and animals
- There are two types:
 - Unsaturated - liquid at room temperature, increase levels of “good” cholesterol (high-density lipoprotein) HDL
 - Monounsaturated
 - Polyunsaturated
 - Trans Fat - changed by a process called hydrogenation
 - Saturated - solid at room temperature, increase levels of “bad” cholesterol (low-density lipoprotein) LDL



Where are they found?

Unsaturated Fats

Monounsaturated:

- Avocados
- Mayonnaise
- Nuts (almonds, pecans)
- Olives
- Seeds (pumpkin, sesame)
- Margarine
- Vegetable Oils (canola, olive)

Polyunsaturated:

- Fish (salmon, tuna, trout)
- Tofu
- Soy Milk
- Edamame
- Seeds (flax, sunflower, chia)
- Nuts (pine, walnuts)
- Vegetable Oils (corn, sunflower)



Saturated

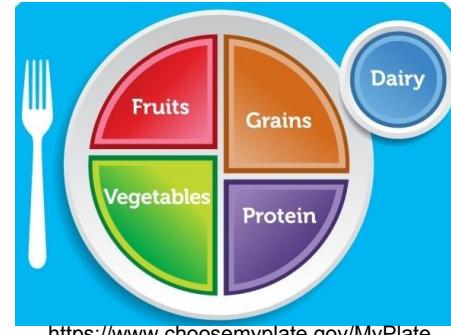
- Beef, Poultry, Pork
- Cream/Whole Milk
- Full Fat Yogurt
- Parmesan Cheese
- Fast food
- Butter
- Coconut Oil
- Ice Cream
- Crackers
- Sweets (candy, choc)
- Processed meats (Bacon, Hot dogs, Sausage, Lunch meats)

Trans

- Frozen Pizza
- Coffee Creamer
- Fast Food
- Ready-to-use Frosting
- Savory sacks
- Vegetable Shortening
- Margarine
- Dough Products (Biscuits)
- Desserts (cakes, pies)
- Popcorn
- Cookies
- Donuts
- Chips

General Recommendations

- 20-35% of calories from fat: 65 grams= 100% DV
- <10% of calories from saturated fat: < 20 grams
- Adults should consume 8 oz. of seafood per week for reduced risk of cardiac death
- Pregnant women should consume 8-12 oz. of seafood containing lower amounts of methyl mercury
- Limit foods that contain solid fats
- 27 grams/day of oils
- Fish oil recommended to reduce inflammation and triglycerides, improve blood pressure and heart rate levels, and lower risk of CHD and stroke
- APA recommends an increased intake of 1.5 ounces of nuts and seeds for support of mental and heart health



Nutrition Facts

- Fats have 9 calories per gram
- 5-20 rule
- Fat-soluble vitamins: A, D, E, and K
- Provides your body with essential fatty acids: linoleic (omega 6) and linolenic (omega 3)
- Monounsaturated and polyunsaturated fats are healthy fats
- Trans fatty acids: hydrogenation

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
<hr/>	
Amount per serving	
Calories	230
<hr/>	
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
<hr/>	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
<hr/>	
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

How Ingredients are Modified When Fats are Altered

- Fat substitutes are materials that simulate the chemical and physical properties of fats and oils
- Fat substitutes are substances that look, feel and/or taste like fat
- Some have calories while others are low or calorie free.
- Three main categories: carbohydrate, protein, and fat based fat substitutes

Carbohydrate- based fat substitutes, such as starches and gums, hold water, impart creamy texture, and add form and structure that are similar to fat.

- They cannot be used for cooking or frying. Carbohydrate-based fat substitutes are used to replace the fat in baked foods, cake and cookie mixes, dairy products, frostings, frozen desserts and salad dressing.
- Common carbohydrate-based fat substitutes are carrageenan, cornstarch, maltodextrins, and xanthan gum

Protein- based fat substitutes, such as egg white, milk and whey, are blended to trap water, and to create a creamy liquid that is similar to fat. They contribute less total fat and fewer calories than the fat they replace.

- Cannot be used for baking or frying, since heat causes a change in their structure. It causes them to gel and lose their creaminess.
- Used to replace the fat in baked goods, butter, cheese, dairy products, ice cream, mayonnaise, salad dressings and sour cream.
- Common protein based fat substitutes include egg white protein; microparticulated protein, milk protein; whey protein concentrate; and whey protein.

Fat-based fat substitutes, with more fatty acids than triglycerides, are too large to be digested, so they do not contribute fat or calories.

- Large amounts of fat-based fat substitutes may cause a loss of fat-soluble vitamins or gastrointestinal side effects.
- Fat-based fat substitutes are used in baked goods, chocolate, confections, snacks and savories.
- Common fat-based fat substitutes are *Caprenin*, mono- and diglycerides, *Olestra*, *Salatrim* and short- and long-chain fatty acids, which are partially absorbed by the body.

As a food ingredient, any synthetic food additive must undergo extensive studies to be deemed safe for consumption. Many of the carbohydrate- and protein-based fat substitutes have received GRAS (Generally Recognized As Safe) status from the U.S. Food and Drug Administration (FDA). However, GRAS status for a compound approved for use as a food additive at low concentrations does not guarantee approval for use as a macronutrient substitute. All synthetic macronutrient substitutes face extensive safety testing prior to FDA approval.

How Modifying Fats Impact a Product

- Fat gives taste, flavor, provides energy and adds to the volume making you feel full
- When altered it changes the :
 - The product becomes high in salt
 - Fiber
 - Cholesterol
 - Taste
 - Appearance
 - Texture
 - Aroma
 - Cooking and Baking

Nutrient & Health Claims

- Nutrient claims: Characterize the value of a vitamin or mineral in a food. Either refer to the amount of a nutrient in a product or compare the levels of a nutrient in that food to a similar reference food.
 - Words such as "low", "free" and "light" are often used to describe the product.
- Health Claims:
 - Authorized: Have significant scientific agreement (SSA), meaning there is a consensus in the publicly available scientific information on the matter.
 - Qualified: "Qualified" health claims, on the other hand, don't have the requirements for SSA but are validated by a significant amount of scientific evidence.



Regular Peanut Butter vs. Reduced Fat Peanut Butter



Name of Product	Cost	Where is it found in grocery store?	Why you would want to use this product?	Pros & Cons	Taste
Jif Creamy Peanut Butter	\$2.49	Condiment aisle	Adds protein Used on sandwiches/dip May replace butter/cream cheese	Pro: Good source of healthy fats Cons: High total fat content	Buttery, Nutty, Rich
Jif Creamy Reduced Fat Peanut Butter	\$2.49	Condiment aisle	Lower total fat content Adds protein May replace butter/cream cheese/regular PB	Pro: lower total fat content Con: increased Na, CHO, sugar	Buttery, Nutty, Rich



Regular Peanut Butter vs. Reduced Fat Peanut Butter



Name of Product	Serving Size	Wt (g)	Calories (kcal)	Fat (g)	Fat Calories (kcal)	Saturated Fat (g)	Chol (mg)	Na (mg)	Total CHO (g)	Sugar (g)	Fiber (g)
Jif Creamy Peanut Butter	2 Tbsp	32	190	16	130	2.5	0	140	8	3	2
Jif Creamy Reduced Fat Peanut Butter	2 Tbsp	36	190	12	100	2.5	0	200	15	4	2



Regular Peanut Butter vs. Reduced Fat Peanut Butter



Name of Product	Ingredients	Describe nature of fat modification as compared to the regular product	State any Nutrition Claim or Health Claim on the label
Jif Creamy Peanut Butter	Roasted Peanuts and Sugar Contains 2% or less of: Molasses, Fully Hydrogenated Vegetable Oils (rapeseed and soybean), Mono and Diglycerides, Salt		None
Jif Creamy Reduced Fat Peanut Butter	Peanuts, Corn Syrup Solids, Sugar, Pea Protein Contains 2% or less of: Salt, Fully Hydrogenated Vegetable Oils (rapeseed and soybean), Mono and Diglycerides, Molasses, Magnesium Oxide, Niacinamide, Ferric Orthophosphate, Zinc Oxide, Copper Sulfate, Folic Acid, Pyridoxine Hydrochloride)	Pea protein	“Reduced Fat” “25% less fat than peanut butter” No health claims



Butter vs. Vegetable Oil Spread



Name of Product	Cost	Where is it found in grocery store?	Why you would want to use this product?	Pros & Cons	Taste
Land O Lakes	\$2.49	Dairy product section	Rich, sweet flavor; creates flakiness when used for baking, adds body, texture, and volume	Cons: High in saturated fats, calories, and cholesterol Pros: No trans fats or partially hydrogenated oils. Only two ingredients.	Sweet, creamy
Promise activ Light Vegetable Oil Spread	\$3.89	Dairy product section	Lower in saturated fats, cholesterol, Despite being low calorie, it is not as natural as butter	Cons: Highly processed Pros: No trans fats or partially hydrogenated oils. Fortified with plant sterols, used to lower or maintain cholesterol levels. Lower in cholesterol, saturated fat, sodium, and calories	Bland, little flavor



Butter vs. Vegetable Oil Spread



Name of Product	Serving Size	Wt (g)	Calories (kcal)	Fat (g)	Fat Calories (kcal)	Saturated Fat (g)	Chol (mg)	Na (mg)	Total CHO (g)	Sugar (g)	Fiber (g)
Land O Lakes Butter	1 Tbsp	16 oz	100	7	100	7	30	90	0	0	0
Promise activ Light Vegetable Oil Spread	1 Tbsp	8 oz	45	5	45	0.5	<5	85	0	0	0



Butter

vs.

Vegetable Oil Spread



Name of Product	Ingredients	Describe nature of fat modification as compared to the regular product	State any Nutrition Claim or Health Claim on the label
Land O Lakes	Sweet Cream, Salt		Health Claim - Gluten Free
Promise activ Light Vegetable Oil Spread	Water, Vegetable Oil Blend (Canola Oil, Palm Oil, Palm Kernel Oil, Liquid Soybean Oil), Plant Sterol Esters, Whey (Milk), Salt, Gelatin, Vegetable Mono and Diglycerides, Soy Lecithin, (Potassium Sorbate), Calcium Disodium Edta) Used to Protect Quality, Lactic Acid, Vitamin E Acetate, Pyridoxine Hydrochloride (Vitamin B6), Artificial Flavor, Maltodextrin (Corn), Vitamin A Palmitate, Beta Carotene (Color), Cholecalciferol (Vitamin D3), Cyanocobalamin (Vitamin B12). Gluten Free.	Water with a blend of vegetable oils that are highly processed. Plant Sterol Esters to help lower LDL cholesterol levels by blocking its absorption. Whey (milk) for water binding and building viscosity. Gelatin to help prevent syneresis and improve foaming and stabilizing. Soy Lecithin is added as an emulsifier. Calcium Disodium EDTA to retain color and protect quality. Vegetable Mono and Diglycerides used to maintain stability and "improve" quality. Lactic Acid and Potassium Sorbate used as a preservative. Maltodextrin for thickening and artificial flavor to improve taste.	Health Claims - "Helps maintain a healthy heart when eaten instead of butter or margarine as part of a diet low in saturated fat, trans fat and cholesterol." Gluten Free "Clinically proven to help lower cholesterol as part of a diet low in saturated fat and cholesterol." "Cardiologist endorsed for their patients concerned about cholesterol levels." Nutrition Claim - "Light 55% less fat and calories than margarine."



Regular Soup

vs.



98% Fat Free Soup

Name of Product	Cost	Where is it found in grocery store?	Why you would want to use this product?	Pros & Cons	Taste
Campbell Condensed soup Cream of chicken	\$1.69	Can good Soup aisle	I would not use the product.	Pros:0 Sugars Cons: High in sodium.	Salty, artificial flavor. Didn't recognize chicken flavor.
Campbell Condensed soup 98% Cream of chicken	\$1.69	Can good Soup aisle	I would not use the product.	Pros:0 sugars. Cons:High in Sodium.	Salty, artificial flavor. Didn't recognize chicken flavor.



Regular Soup Vs. Fat Free Soup



Name of Product	Serving Size	Wt (g)	Calories (kcal)	Fat (g)	Fat Calories (kcal)	Saturated Fat (g)	Chol (mg)	Na (mg)	Total CHO (g)	Sugar (g)	Fiber (g)
Cream of Chicken	½ cup (120mL)	298	70	2.5	25	0.5	5	410	9	0	0
98 % Fat Free Cream of Chicken	½ cup (120mL)	298	60	2.0	20	0.5	5	750	8	0	0



Regular Soup Vs. Fat Free Soup



Name of Product	Ingredients	Describe nature of fat modification as compared to the regular product	State any Nutrition Claim or Health Claim on the label
98% Fat Free Cream of Chicken	Chicken Stock, Modified Food Starch, Wheat Flour, Cream (Milk), Chicken Meat, Contains Less Than 2% Of: Salt, Vegetable Oil, Mechanically Separated Chicken**, Monosodium Glutamate, Yeast Extract, Water, Soy Protein Concentrate, Flavoring, Chicken Fat, Vegetable Oil, Beta Carotene For Color, Soy Protein Isolate, Sodium Phosphate, Lactic Acid, Soy Lecithin, Celery Extract, Chicken**, Butter (Cream), Butter (Cream, Salt)**, Cream (Cream, Soy Lecithin)**, Sunflower Oil, Buttermilk, Enzyme Modified Butter, Butter (Cream, Annatto), Whey Protein Concentrate, Onion Extract, Nonfat Dry Milk, Enzyme Modified Butter Fat And Oil, Whey. **dehydrated.	No fat substitute. Same ingredients from the regular product, except water and carrot juice concentrate. None. Less than 2% of water.	No health claim.
Cream of Chicken	Chicken Stock, Water, Modified Food Starch, Wheat Flour, Cream (Milk), Chicken Meat. Less than 2% of: Carrot juice concentrate.	Contains water, and carrot juice concentrate.	Healthy Request - <ul style="list-style-type: none">• Heart Healthy0g Trans Fat per serving

*While many factors affect Heart Disease, Diets low in saturated fat and cholesterol may reduce the risk of this disease.



Regular Frozen Dinner vs. Low Fat Frozen Dinner



Name of Product	Cost	Where is it found in grocery store?	Why you would want to use this product?	Pros & Cons	Taste
Banquet turkey meal	\$3.99	Frozen dinner section	Last minute or more convenient option for a meal	Con: half of the calories are from fat	Salty
Lean Cuisine Glazed Turkey Tenderloins	\$3.49	Frozen dinner section	“Better alternative” for a last minute or convenient option for a meal	Pro: only a quarter of a half comes from fat Con: sugar content is high	Salty, sweet



Regular Frozen Dinner vs. Low Fat Frozen Dinner



Name of Product	Serving Size	Wt (g)	Calories (kcal)	Fat (g)	Fat Calories (kcal)	Saturated Fat (g)	Chol (mg)	Na (mg)	Total CHO (g)	Sugar (g)	Fiber (g)
Banquet Turkey Meal	1	283	280	11	100	3	45	1460	29	4	5
Lean Cuisine Glazed Turkey Tenderloins	1	255	270	5	45	1.5	25	610	42	20	3



Regular Frozen Dinner vs. Low Fat Frozen Dinner

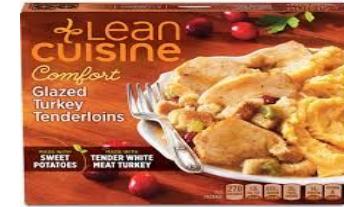


Name of Product	Ingredients	Describe nature of fat modification as compared to the regular product	State any Nutrition Claim or Health Claim on the label
Banquet Turkey Meal	Turkey with Gravy and Dressing (Water, White Cooked Turkey [White Turkey, Water, Soy Protein Concentrate, Modified Food Starch, Salt, Sodium Tripolyphosphate, Chicken Broth Powder {Maltodextrin, Chicken Broth, Salt, Flavors}, Flavoring], Cooked Turkey [Dark Turkey, Mechanically Separated Turkey, Water, Soy Protein Concentrate, Modified Food Starch, Salt, Sodium Tripolyphosphate, Chicken Broth Powder {Maltodextrin, Chicken Broth, Salt, Flavors}, Flavoring], Dressing [Unbleached Enriched Wheat Flour {Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate, Riboflavin, Folic Acid}, Cornmeal, Canola Oil, Salt, Sugar, Yeast, Dextrose, Wheat Gluten, Dehydrated Celery, Dehydrated Onion, Onion Powder, Spices, Calcium Propionate, Spice Extractives, Ascorbic Acid], Contains 2% or Less of Rendered Chicken Fat, Modified Food Starch, Wheat Flour, Flavorings, Salt, Soybean Oil, Cellulose, Monosodium Glutamate, Turkey Flavor [Ground Turkey, Turkey Broth, Safflower Oil, Flavor, Dry Turkey Broth, Maltodextrin, Turkey Fat], Dextrose, Caramel Color, Sugar, Spice, Ground Paprika, Oleoresin Turmeric), Water, Peas, Dehydrated Potatoes (Potatoes, Mono- and Diglycerides from Vegetable Oil, Sodium Dihydrogen Pyrophosphate, Sodium Acid Pyrophosphate, Sodium Bisulfate, Citric Acid, BHT), Soybean Oil, Salt, Whey Protein Concentrate, Natural Flavor), Sugar.		No nutrition or health claims were found on the label



Regular Frozen Dinner

vs.



Low Fat Frozen Dinner

Name of Product	Ingredients	Describe nature of fat modification as compared to the regular product	State any Nutrition Claim or Health Claim on the label
Lean Cuisine Comfort Glazed Turkey Tenderloins	<p>Sauce, Turkey and Dressing: Water, Cooked Glazed Turkey Tenderloins, Enriched Wheat Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate, Riboflavin, Folic Acid), Celery, Onions, Sugar, Honey, Modified Cornstarch, Butter (Cream, Salt), Dried Cranberries, Onion Puree, Maltodextrin, Soybean Oil, Bleached Wheat Flour, Garlic, Salt, Dried Tomato, Seasoning (Autolyzed Yeast Extract, Maltodextrin, Salt, Turkey Flavor, Turkey Stock, Flavor, Gum Arabic), Carrageenan, Autolyzed Yeast Extract, Canola Oil, Sodium Phosphate, Natural Flavors, Spices, Caramel Color, Soy Sauce (Soybeans, Wheat, Salt), Potassium Chloride, Dried Beef, Fructose, Cultured Whey, Sunflower Oil, Paprika, Citric Acid, Lactic Acid, Chicken Powder, Onion Powder, Lipolyzed Cream (Butter, Nonfat Milk Solids), Xanthan Gum, Turmeric, Chicken Fat, Chicken Skin, Dried Chicken Broth. Sweet Potatoes: Sweet Potatoes, Skim Milk, Sugar, Soybean Oil, Water, Molasses, Salt, Spices, Natural Vanilla Flavor, Carrageenan, Cultured Dextrose.</p>	<p>Sauce added for extra glazed flavoring, Carrageenan a carbohydrate-based fat substitute that is used to thicken, emulsify, and preserve food, Maltodextrin also a carbohydrate-based fat substitute which adds as a filler and increases volume, Xanthan gum a thickening agent found in sauces and prevents separation of ingredients.</p>	<p>No nutrition or health claims were found on the label</p>



Regular Vanilla Ice Cream

VS.



Fat Free Vanilla Ice Cream

Name of Product	Cost	Where is it found in grocery store?	Why you would want to use this product?	Pros & Cons	Taste
Turkey Hill Vanilla Bean Ice cream	\$4.69	Frozen dessert section	Traditional ice cream	Con: more than half the calories are from fat	Creamy and sweet
Turkey Hill Fat Free Vanilla Bean Ice Cream	\$4.69	Frozen dessert section	Similar taste and texture to ice cream with no fat and less calories	Pros: no calories from fat	Sweet and not as smooth as the regular



Regular Vanilla Ice Cream

vs.

Fat Free Vanilla Ice Cream



Name of Product	Serving Size	Wt (fl oz.)	Calories (kcal)	Fat (g)	Fat Calories (kcal)	Saturated Fat (g)	Chol (mg)	Na (mg)	Total CHO (g)	Sugar (g)	Fiber (g)
Regular ice cream	½ cup	48	130	7	70	4.5	25	50	16	12	0
Fat free ice cream	½ cup	48	70	0	0	0	0	75	20	6	5



Regular Vanilla Ice Cream

vs.

Fat Free Vanilla Ice Cream



Name of Product	Ingredients	Describe nature of fat modification as compared to the regular product	State any Nutrition Claim or Health Claim on the label
Turkey Hill Fat Free Vanilla Bean Ice Cream	Nonfat milk, Polydextrose, Maltodextrin, sorbitol, whey , monoglycerides, diglycerides , cellulose gel, cellulose gum, carbohydrate gum , locust bean gum, natural and artificial flavors, vanilla bean, sucralose, ace K, carageenan , vitamin A and vitamin D3	Nonfat milk was used Polydextrose and maltodextrin are both used as a fat substitute for texture Whey, mono and diglycerides, all gels and gums used and carageenan	“Good source of calcium” “Excellent source of Vitamin D” “Fat free” “No sugar added recipe”
Turkey Hill Vanilla Bean Ice Cream	Milk, cream, corn syrup, sugar, whey, nonfat milk, cellulose gel, cellulose gum, natural and artificial flavors, mono & diglycerides, carageenan, vanilla bean		N/a

Trends that are Occurring in the Market

- Low fat products are fading away.
- Greater variety of oils/fats available for the consumers.



What Manufacturers do to Promote the Product

- AHA on food label
- Trans fat free claims
- 5 - 20 RULE



American
Heart
Association

Products displaying the heart-check mark meet American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.

heartcheckmark.org



Your Role as a Consumer

- Become educated on which foods contain trans and saturated fats.
- Monitor FDA recommendations.
- Read the nutrition label.
- Be aware of what is in the product by looking at the ingredients.
- Make appropriate substitutions.
- Maintain realistic goals for intake of total fat and fatty acids by following the 5/20 rule.

Dietary Guidelines for Fat

- Adults fat intake should be 20-35% of calories
- Daily value for fat is 65 grams/day based on a 2000 calorie diet
- Daily value for saturated fat is < 20 grams/day based on a 2000 calorie diet
- Reduce intake of saturated and trans fats
- Increase intake of nuts, seeds, seafood, and oils

5% DV of sat. fat = low fat



KNOW YOUR FATS

UNDERSTANDING DIETARY FATS, KNOWING WHICH TYPES TO CHOOSE, AND HEALTHY RECOMMENDATIONS



Provided By: Amanda Charles,
Amy Gerber-Buchanan, Bruna McPherson,
Meghan Boda, and Sarah Bonafede

agerber01@mail.buffalostate.edu

What are fats?

- Fats are essential to our diets and contribute to good health.
- There are 3 main types of fats, some of which are healthier than others.

Types of Fats

- Unsaturated - found in plant products
- Saturated - found in animal products
- Trans - created from a process of adding hydrogen to vegetable oils

What do fats do?

- Fats give your body energy
- They allow for absorption of vitamins A, D, E and K.
- In large quantities can cause weight gain
- Saturated and trans fats can increase risk of cardiovascular disease



Common Foods with: Saturated Fat

- Butter

- Pizza

- Sausage

Unsaturated Fat

- Olives

- Nuts

- Seeds

Trans Fat

- Cakes

- Cookies

- Microwave popcorn

- Foods commonly found in dairy, frozen and snack sections



Summary

- Fat is essential to the body in order to provide energy and to help aid in the absorption of vitamins A, D, E and K
- It is vital to growth and development
- Fat also helps to provide flavor to a food as well as give the proper texture
- Read labels to ensure you know what fats you are consuming
- Only consume the recommended amounts for a healthy diet
- Low fat does not necessarily mean low calorie

Resources

- <https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/trans-fat.html>
- <https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/totalfat.html>
- <https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/polyandmonounsaturatedfat.html>
- <https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/saturatedfat.html>
- https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/factsheets/Total_Fat.pdf
- <https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/fat.html>
- <https://www.eatforhealth.gov.au/food-essentials/fat-salt-sugars-and-alcohol/fat>
- <https://medlineplus.gov/ency/patientinstructions/000104.htm>
- <https://www.choosemyplate.gov/saturated-unsaturated-and-trans-fats>
- <https://www.iif.com/products/peanut-butter/reduced-fat-creamy-peanut-butter>
- <https://www.packagedfacts.com/Food-Formulation-Trends-10726421/>
- https://health.gov/dietaryguidelines/2015/resources/2015-2020_Dietary_Guidelines.pdf
- https://www.foodinsight.org/Functional_Foods_Fact_Sheet_Plant_Stanols_and_Sterols
- <https://cspinet.org/tip/covering-spreads-sorting-through-claims>
- <http://www.mnsna.org/wp-content/uploads/2010/07/Heart-Healthy-Eating-for-Aug.-2011-talk.pdf>
- <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/fat-substitute>

Thank You For Attending!

Questions?

Comments?