

GoodFats101.com

GOOD  
FATS 101

DIETARY FAT:  
THE GOOD,  
THE BAD AND  
HOW TO EAT  
THE RIGHT ONES

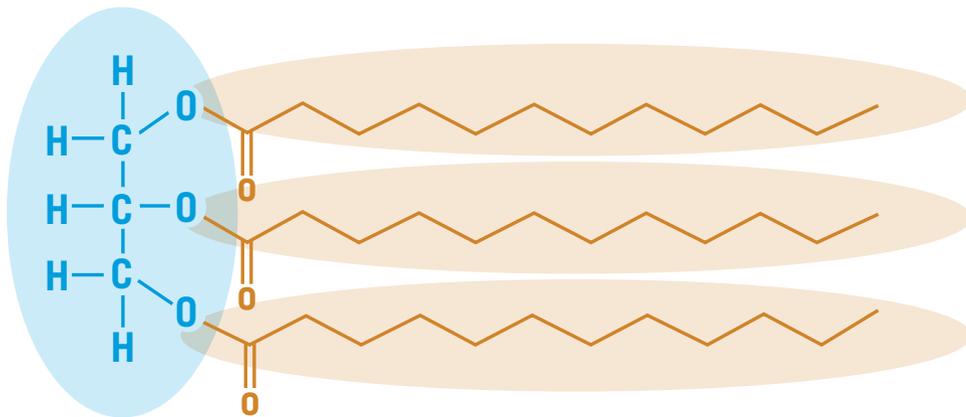
Display flip book in a way that it is visible to all customers participating.

My name is {insert name}, and I am a registered dietitian at {insert grocery store name}.

Today, we will discuss dietary fats and clear up any confusion about what you have heard about fats in social media, magazine articles and even the news. The information I'll be sharing today is based on scientific research and is supported by doctors, dietitians and researchers across the country. In fact, the government's dietary guidelines stem from this evidence-based research!

Let's get started!

# WHAT IS **FAT**?



Let's begin with the basics: What is fat?

Fat is a dietary compound that is vital to human growth and development. Without fat, we cannot survive because it is an essential part of many body functions, including cell membrane structure, brain development, healthy skin maintenance, and the absorption of fat-soluble vitamins (vitamins, A, D, E and K).

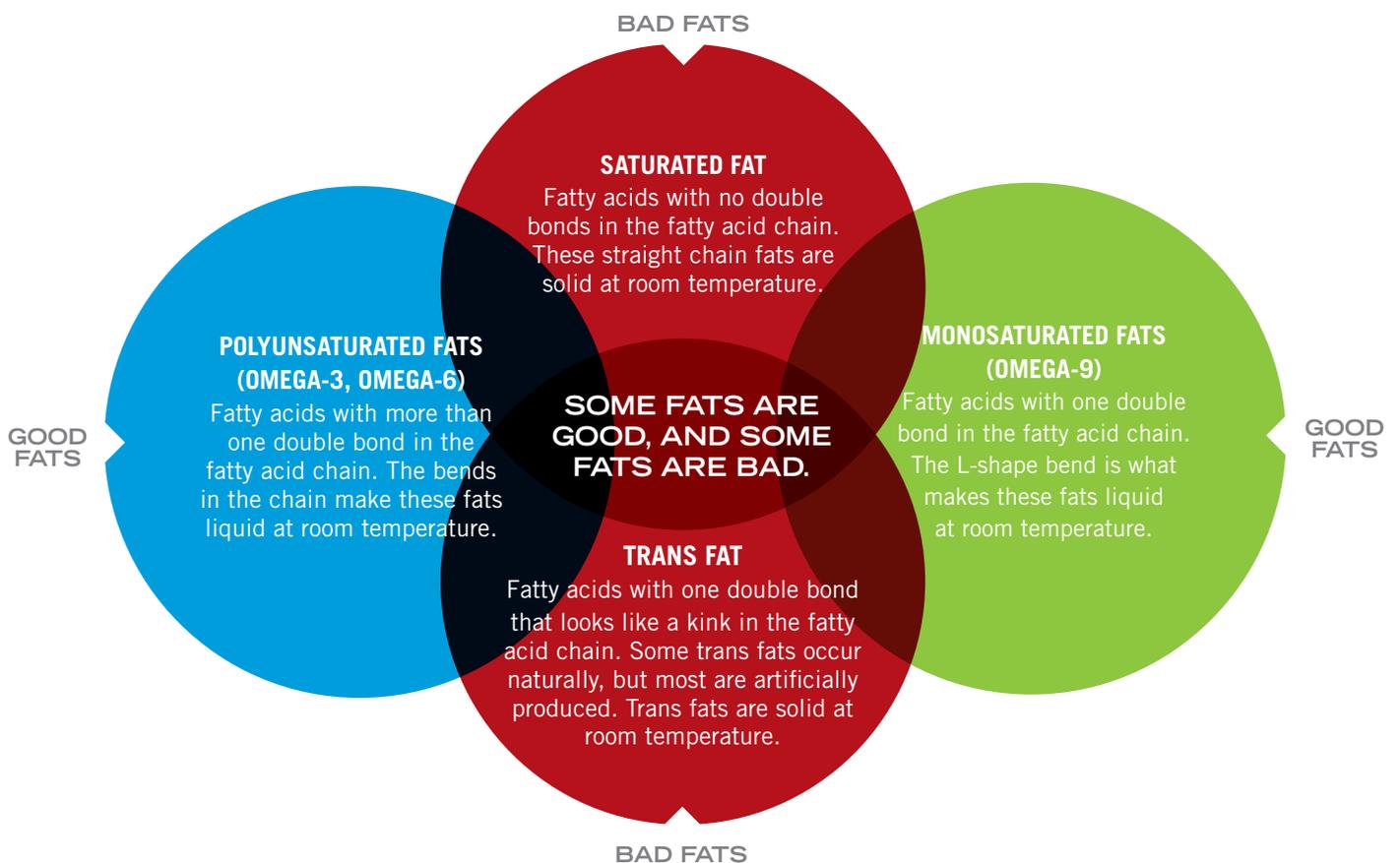
You may hear many different names to describe fat, including: fatty acids, lipids, monounsaturated fat, polyunsaturated fat, saturated fat, trans fat, omega-3, -6, -9, and others. We'll clarify what all these different names mean as we go along.

### Point to picture of triglyceride structure.

First, let's take a look at the basic structure of a triglyceride. As you can see, it is made of one glycerol molecule, which serves as the backbone ([point to glycerol](#)), and three fatty acid chains ([point to three chains](#)). The structure of those fatty acid chains can be different depending on what type of fat you are eating. Some fatty acids chains are long, some are short; some are completely saturated with hydrogen atoms; others may have fewer hydrogen atoms and more double bonds; and some even have bond structures that drive the chain to develop kinks.

It is important to understand that fat molecules look different, and they also behave differently. The structure of fat directly influences the way it is digested and absorbed through the body, and ultimately your health. Now, let's talk about how some of these structural differences determine whether we are eating a "good" fat or a "bad" fat.

# SOME FATS ARE GOOD, AND SOME FATS ARE BAD



On any nutrition label, in addition to total fat, four different kinds of fat may be listed: trans, saturated, polyunsaturated and monounsaturated. While we discussed that the body needs fat to function, not all fats positively impact health. In fact, trans fat and saturated fat have some negative health effects that we'll discuss later (point to "Bad Fats" title). But first, let's look at each structure individually.

### Point to saturated fat.

Let's take a look at saturated fats. As you can see, they have no double bond in their fatty acid chains, and every carbon atom has its own hydrogen atom. Saturated fats are typically solid at room temperature and naturally occur in food products.

### Point to trans fat.

As you can see, trans fats are defined by the unique kink in their fatty acid chain. While some trans fats are naturally present in milk and meats, most are artificially produced as a result of partial hydrogenation. Partial hydrogenation is a process used to convert liquid oil to a solid. For example, it used to be common for margarine to undergo partial hydrogenation to convert oil to a more desirable solid form for spreading. Partial hydrogenation changes the structure of the original molecule, resulting in the straight molecular chain with a kink that you can see in this picture (point to kink in fatty acid chain).

### Point to monounsaturated fat.

Now, on to the good fats. When you look at monounsaturated fatty acids, you can see there is one double bond, meaning that once again, the chain is not completely saturated with hydrogen atoms. Because of this structure, monounsaturated fats also are liquid at room temperature and naturally occur in food products.

### Point to polyunsaturated fat.

Polyunsaturated fatty acids have more than one double bond in the fatty acid chain. This is because the fatty acid is not saturated with hydrogen atoms, forcing two carbons to link together with a double bond at different points in the chain. Like monounsaturated fats, polyunsaturated fats are liquid at room temperature and naturally occur in food products.

In general, 'good fats' are liquid oils at room temperature, whereas 'bad fats' are solid or creamy at room temperature.

# GOOD FATS ARE **OMEGAS**

**GOOD FATS**

Polyunsaturated fat = Omega-3 and Omega-6  
Monounsaturated fat = Omega-9

**BAD FATS**

Saturated fat  
Trans fat



**OILS**  
(GOOD FATS)



**BUTTER/LARD**  
(BAD FATS)

Remember when I mentioned all the different names for fats? Now we're going to dive into another word you may recognize: omegas.

## Point to “equation.”

So, let's dive right in. Take a look at the relationship here. Polyunsaturated fats are omega-3 fatty acids and omega-6 fatty acids. Monounsaturated fats are omega-9 fatty acids. As you can see, saturated fats and trans fats are not known by any other names.

If you think about these relationships as an equation where omega-3 and omega-6 = polyunsaturated fats and omega-9 = monounsaturated fats, you'll be able to tackle any nutrition label or front-of-package claim in the grocery store. Are there any questions about what we have reviewed so far?

## Pause for questions.

Ok. The most important thing to understand is that the good fats are poly- and monounsaturated fats, otherwise known as omega-3, -6 and -9.

# OMEGA-3, 6 AND 9

NAME	OMEGA-3	OMEGA-6	OMEGA-9
FORM	ALA (alpha-linolenic acid) EPA (eicosapentaenoic acid) DHA (docosahexaenoic acid)	LA (linoleic acid) GLA (gamma-linoleic acid) AA (arachidonic acid)	Oleic acid
DIETARY SOURCE	Oils: canola, flax, soybean Nuts: walnuts Fish: oily fishes (herring, mackerel, salmon, tuna) Other: algae, Omega-3 eggs	Oils: canola, corn, olive, peanut, safflower, soybean, sunflower Nuts: almonds, cashews, hazelnuts, peanuts, pecans, pistachios, walnuts Other: eggs, dairy	Oils: canola, olive, peanut, sunflower, safflower Nuts: almonds, cashews, macadamias, peanuts, pecans, pistachios, hazelnuts, walnuts Other: avocados, eggs, dairy, meat, poultry
POSITIVE HEALTH EFFECTS	Brain development, heart health, cholesterol, cognition, mood	Heart health, cholesterol	Heart health, cholesterol, blood sugar control



WALNUTS



GREEN OLIVES



AVOCADOS



OILS



CANNED TUNA

Let's have a deeper conversation about three different kinds of fat — omega-3, -6 and -9. Do you remember what kind of fat omega-3 and omega-6 are?

Pause and wait for answer.

Excellent. Omega-3 and omega-6 are polyunsaturated fats, while omega-9 is the primary monounsaturated fat. It really can be that simple.

In the world of good fats, each omega fatty acid has a specific role in the body, but they all work together to keep our bodies healthy. So, let's talk about the omegas individually, with an overarching understanding that all three are important to promote good health.

Point to omega-3 row.

Omega-3s can be further classified as ALA, EPA and DHA. You may recognize some of these abbreviations from dietary supplements or infant formula packaging. The important thing to understand is that they are essential fatty acids and **MUST** be provided by your diet. In other words, your body does not make enough of this type of fat, even though it is essential for brain development and heart health. Therefore, it's important to consume healthy oils, nuts and oily fish to ensure our body's functional needs are met.

Point to omega-6 row.

Omega-6 fatty acids are further classified as LA, GLA and AA. Omega-6 fatty acids play a crucial role in heart health and cholesterol management. Like omega-3 fatty acids, omega-6s are essential and **MUST** be provided by your diet to meet your body's needs. You can find omega-6 fatty acids in many different oils, nuts, eggs, dairy and meat products.

Point to omega-9 row.

The most common form of omega-9 fatty acids is oleic acid, although there are others. They are important for heart health and blood sugar control and can be consumed in our diet through healthy oils, nuts, avocados, eggs and dairy.

Still with me? Now that we know **WHAT** the different omegas are, let's talk about how they each impact our overall health.

Pause for acknowledgement of understanding.

# CHOOSE GOOD FATS FOR IMPROVED HEALTH

Bad fats may negatively influence your health.

- Increase 'bad' cholesterol (LDL)
- Decrease 'good' cholesterol (HDL)
- Increase the risk for developing coronary heart disease

Good fats have positive health benefits.

- Improve cholesterol levels
- Reduce risk of heart attack and stroke
- Reduce risk of diabetes
- Promote healthy nerve activity
- Improve vitamin absorption
- Maintain healthy immune system
- Promote cell development



So, you might be thinking, “What does all of this mean? Why is it important to understand these differences?”

Let's talk about why knowing some of this nitty-gritty science information is going to pay off for you in the long run. First, let's discuss bad fats and how they might negatively influence our health. Remind me what those bad fats are again?

### Pause and wait for answer.

Right. Trans fats and saturated fats are considered the bad fats. Does that mean foods containing these fats are off limits? With the exception of artificial trans fats, not necessarily. These are fats that we should avoid or eat in moderation because [\(point to information about bad fats\)](#) they play a very specific role in raising bad cholesterol, lowering good cholesterol and ultimately increasing the risk of developing heart disease. The mechanism by which trans and saturated fats contribute to health problems is still being studied, but scientific evidence suggests that trans fats are not properly digested in the intestines, and saturated fat stimulates the liver to produce the 'bad' LDL cholesterol.

Chances are you know someone affected by heart disease since it is the number one cause of death in North America. Avoiding bad fats is one of the best ways to keep your heart healthy for a lifetime.

So, if we know bad fat plays a role in clogging our arteries and leading to heart disease, you're probably wondering why we even need to eat it at all. Well, [\(point to information about good fats\)](#) studies show that good fats —the omegas — are extremely important for other bodily functions, such as brain development, healthy skin, vitamin absorption and the prevention of chronic diseases. In fact, eating good fats can actually help prevent heart disease!

# GOOD FATS ARE FOUND IN FOODS YOU EAT EVERY DAY

Grocery stores carry good fats in many different forms, including:

- Produce (avocados)
- Meat, Poultry and Fish (salmon, tuna and mackerel)
- Dairy (margarine)
- Oils (canola, corn, olive, peanut, soybean and sunflower)
- Canned Foods (black olives, green olives, salmon and tuna)
- Nuts and Seeds (walnuts, almonds, cashews, hazelnuts, peanuts, pecans, pistachios, macadamias, pumpkin seeds, flaxseed and sunflower seeds)



TUNA



OILS



BLACK OLIVES

So, now that we understand the importance of seeking out good fats in the grocery store and at restaurants, let's talk about where they can be found and what foods are considered the best sources.

If you've spent any time in a kitchen, you probably know that oil is high in fat. The good news is that many oils are high in good fats — the omegas! When baking, sautéing, grilling or drizzling salad dressing, use oils such as canola oil, olive oil and sunflower oil. The good news is healthy oils are not just in bottles on the shelf. Many snack foods also contain healthy oils, and we'll talk about how to identify them on the nutrition label in a few minutes. Nuts also are a great source of good fats. Choose varieties like almonds, pistachios, and walnuts when you're in the baking aisle. Some fruits, such as avocados and olives, are high in omegas, and oily fish, such as salmon and tuna, are great choices as well. What are some ways you can think of to incorporate these foods into your normal diet?

### Pause and wait for answers.

You have some great ideas! A salad is a great place for almonds or walnuts, avocados and olives, and even salmon or tuna. Avocados can be used as a replacement for spreads that contain “bad fats,” such as butter. A simple dinner dish could include salmon drizzled in olive oil and lemon juice. And, don't be afraid to bake with healthy oils. A blueberry muffin made with canola oil is a light and delicious mid-afternoon or evening snack.

# FUNCTIONS OF FATS



## FLAVOR AND MOUTHFEEL

Dressing and Sauces



## FLAKEY LAYERS AND TEXTURE

Baked Goods



## CRISP TEXTURE

Snack Foods and Restaurant Favorites

Fat has many different roles in the body, but it also has important functions in food products.

### Point to chart.

Deep frying is the process of removing moisture from food, and fat serves as the medium for heat transfer. Many snack foods are fried in oil, which gives foods like French fries and chicken that golden, crisp texture.

In dressings and sauces, emulsified fat contributes to a smooth, flavorful product like Ranch dressing and mayonnaise.

Fats are hydrophobic, which means they do not like to be in contact with water, that's why oil and water separate. In fact, fat in baked goods prevents the development of gluten and results in a more tender food product with flaky layers, like biscuits and muffins.

This chart should help you understand that fat is added to food products for many different reasons, not just for flavor. Remember that products labeled as "fat-free" or "reduced fat" have replaced fat with a different nutrient, often carbohydrates or sodium. Fat plays an important role in the quality of food products, so keep in mind that the fat-free product is not always the best product.

# LOOK FOR GOOD FATS ON FOOD LABELS

## TIPS:

Calculate the total amount of good fats by subtracting trans fat and saturated fat from total fat on the nutrition facts panel.

Look for ingredients such as canola oil or sunflower oil to indicate good fats. Watch out for ingredients such as partially hydrogenated oils (trans fats) and palm oils (high in saturated fat).

Look for packaging claims outside the nutrition label that indicate good fats have replaced bad fats, such as “contains x grams of omega-3 fatty acids” or “provides x grams of omega-6 fatty acids.”

Do not be deceived by “low fat” or “fat-free” claims. “Low fat” also can suggest “high sugar.”

POPCORN LABEL	
<b>Nutrition Facts</b>	
Serving Size: 2 cups popped	
Serving Per Container 4	
<b>Amount per serving</b>	
<b>Calories 230</b>	<b>Calories from Fat 60</b>
<b>%Daily Value*</b>	
Total Fat 6g	3%
Saturated Fat 1g	0%
Trans Fat 0g	
Monounsaturated Fat 3.5g	
Polyunsaturated Fat 1.5g	
<b>Ingredients:</b> Popcorn, canola oil, salt	

\*Perfect Daily Values are based on a 2,000 calorie diet. Your Daily values may be higher or lower depending on your calorie needs.

Now that you understand some of the natural sources of omegas and their role in the body and food, I think it's important to learn how to read a nutrition label to identify good fats in foods in the center of the store.

### Point to nutrition label.

Take a look at the nutrition label. "Total Fat" is clearly marked (point to "Total Fat") and easy to identify.

Notice that on this label, there are 6 grams of total fat in the product, but this number doesn't tell us anything about whether they are good fats or bad fats. So, take a look at the next two titles, which say "saturated fat" (point to "saturated Fat") and "trans fat" (point to "trans fat"). According to the label, this product has 1 gram of saturated fat and 0 grams of trans fat. This is good information to know, but where is the label for monounsaturated and polyunsaturated fat? Unfortunately, these types of fats are not yet required on the nutrition label. While they may be present on some labels, it is the manufacturer's choice to include more detailed information and therefore not mandatory. If you don't see monounsaturated and polysaturated fats listed, you can solve with a simple calculation. Just subtract saturated and trans fat from total fat to get the number of grams of combined 'good fats'. Let's practice with the example on this page. How many 'good fats' are in this product if there are 6 grams of total fat, 1 gram of saturated fat, and 0 grams of trans fat?

### Pause to let customer do the math.

What number did you get?

### Pause for answer.

One serving of this product has 5 grams of good fats! Don't be overwhelmed by the math when you're looking at a label. Remember: practice makes perfect and most phones have a built-in calculator to help you.

The other information source on this label is the ingredients list (point to ingredients list). Scanning the ingredients list is another helpful way to identify good fats. Look for healthy oils, such as canola oil, olive oil, and sunflower oil, and avoid products that use partially hydrogenated oils and palm oils. In this case, the product is made with canola oil, which is full with good fats.

# GOOD FATS ARE PART OF A HEALTHY DIET

The United States Department of Agriculture (USDA) recommends Americans consume 20-35% of calories from fat. Here are targets for maximizing good fats within total fat intake:

NORTH AMERICANS SHOULD CONSUME  
**20-35% OF CALORIES FROM FAT**



**LESS THAN 10%**  
OF CALORIES FROM  
SATURATED FATTY ACIDS



**LESS THAN 1%**  
OF CALORIES FROM  
TRANS FATS

---

**AT LEAST 10-25%**  
OF COMBINED  
POLYUNSATURATED  
AND MONOUNSATURATED  
FATTY ACIDS\*

IN AN AVERAGE  
**2,000-CALORIE**  
DIET, YOU SHOULD  
CONSUME 22-55  
GRAMS OF OMEGA-3,  
6 AND 9 DAILY<sup>4</sup>

Canada has also developed regulations for good fats. According to their guidelines, Canadians should include a small amount (30-45 ml/2-3 tbsp) of unsaturated in their daily diet. This includes healthy oils and margarines.

\* range based on USDA recommendations for total calories from fat

Good fats are available in many foods that we eat on a daily basis. Today, we've discussed some of the best sources. But how do we know how much to eat?

Although each person's recommended dietary intake varies, our governments have developed guidelines for fat intake.

## Point to recommendations.

According to US Dietary Guidelines, we should consume 20-35% of calories from total fat. That means if we eat a 2,000-calorie diet, about 44-78 grams should be from fat. The recommendations are further divided into guidelines for good fats and bad fats. For a person following a 2,000-calorie diet, about 22-55 grams of fat should be from omega-3, -6 and -9. Finally, it is recommended that Americans avoid artificial trans fats. Many U.S. cities have even banned trans fats in an effort to completely eliminate them from our diet.

Canada has also developed regulations for good fats. According to their guidelines, Canadians should include a small amount (30-45 ml/2-3 tbsp) of unsaturated fat in their daily diet. This includes healthy oils and margarines.

Fat is high in calories. It has twice as many calories per gram as carbohydrates, so you need to be mindful of the amount that you consume. One gram of fat is equal to nine calories.

The best way to approach dietary fat is to check the nutrition label whenever possible. Use these handouts ([give customers handouts](#)) to guide your dietary decisions throughout the day.

FOR MORE INFORMATION **VISIT**



[GOODFATS101.COM](http://GOODFATS101.COM)

# THANK YOU

Thank you for participating in today's overview of dietary fat. I hope it was beneficial and will give you a new perspective on your fat intake. Please visit [GoodFat101.com](http://GoodFat101.com) for more information on dietary fat. At this time, I'd be happy to take any questions.

## Reference Appendix

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