

Indiana Extension Homemakers

## **The Coconut Craze, Spring 2018**

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### **The Coconut:**

- **Known as “tree of life.”**
- **One-third of the world’s population relies on coconut for food and economic prosperity.**
- **Coconut meat provides fiber, vitamins, minerals, and fat making it highly nutritious for the indigenous who eat it.**
- **Known as a “functional food” or “superfood” worldwide**
- **Coconuts from tall palm trees are used mostly for coconut oil.**
- **Considered a large fruit that grows close to the palm tree trunk, in clusters of ten to twelve coconuts at a time.**
- **Each coconut takes a full year to ripen to maturity from flower to fruit.**
- **There are different types of coconut palm trees, there is a “dwarf” and a “tall” tree; the tall palm trees coconuts are used mostly for coconut oil.**
- **Most people consider the coconut to be a nut but it is actually a large fruit and it takes almost a full year to ripen to maturity from a flower to fruit.**

### **Trends:**

- **The use decreased in 80’s & 90’s due to its high saturated fat content.**
- **Making a recent comeback.**
- **Coconut oil is being marketed around the globe via websites, product literature, magazine articles, books and TV, promoting its use.**
- **But where are the facts?**
- **All lack scientific evidence to back up the product effectiveness**

## **Saturated vs Unsaturated Fat Overview:**

Usually, solid at room temperature and are referred to as “solid fats.”

Mostly from animal foods, but can be made from vegetable oils typically via hydrogenation, however, palm and coconut oil are naturally high in saturated fats.

Unsaturated fat is usually liquid at room temperature, and it is referred to as an oil.

Typical, unsaturated fats currently consumed are corn oil, soybean oil, safflower oil and sunflower oil.

Studies have shown a decrease in blood cholesterol levels when people have replaced saturated fat with unsaturated fat in their diet.

Consuming less than 10 percent of calories from saturated fatty acids and replacing them with unsaturated fatty acids is associated with lower blood cholesterol levels.

# Fat Content Comparison

## Fatty Acid Composition of Fats and Oils

### Percent of Total Fatty Acids

Kind of Fat or Oil   **Saturated**   **Monounsaturated**   **Polyunsaturated**

Safflower oil	9	13	78
Sunflower oil	11	20	69
Corn oil	13	25	62
Olive oil	14	77	9
Soybean oil	15	24	61
Peanut oil	18	48	34
Sockeye salmon	20	55	25
Cottonseed oil	27	19	54
Lard	41	47	12
Palm oil	51	39	10
Beef tallow	52	44	4
Butterfat	66	30	4
Palm kernel oil	86	12	2
Coconut oil	92	6	2

**Coconut oil is very last entry and, if you look, it is the highest in Saturated Fat.**

**\*\*Coconut oil is even higher in saturated fat than butter, which is very surprising.**

**Does anyone have a guess as to which one would be the best option?**

**I would say that Olive Oil is the best option on this list because it is low in saturated fat but higher in monounsaturated fat.**

**Monounsaturated fat – good fats and the healthy alternative to the trans fats and polyunsaturated fats that you will find in most processed foods. Monounsaturated fats, include olive oil, nuts, avocado, etc.**

**Other oils that are being studied for their healthy fat profile, specifically, polyunsaturated fats, are safflower and sunflower oils. You will hear more about these in the news.**

## COCONUT NUTRITION:

Coconut oil is extracted from the fruit of mature coconuts.

It is a saturated fat, and consumers are cautioned against a diet high in saturated fat.

Since it is naturally partially hydrogenated, it should be considered solid fat.

Hydrogenation: the process that forces chemical addition of hydrogen into omega-6 polyunsaturated oils to make them hard at room temperatures.

Virgin coconut oil is high in lauric acid, a medium-chain fatty acid that raises both good and bad cholesterol levels. No scientific evidence that just this one acid from coconut oil provides health benefits.

So, if you have to use coconut oil, that is the best option for is to use virgin coconut oil.

Since we should be limiting saturated fat in our diet, it is recommended to avoid or reduce intake of all tropical oils, including coconut oil.

The evidence-based 2010 Dietary Guidelines for Americans recognize that the type of fatty acids consumed is more important than the total intake of fat.

Replacing some saturated fats with unsaturated fatty acids lowers both total and low-density lipoprotein blood cholesterol levels.

Americans should replace solid fats with oils, rather than add oil to the diet, and should use oils in small amounts.

- Coconut oil, if used, should be used in moderation – or small amounts.

*Consistent with the overall guidance to limit saturated fat is the recommendation to avoid tropical oils, including coconut oil and palm oil.*

**The evidence-based 2010 and now the 2015 Dietary Guidelines for Americans recognize that the type of fatty acids consumed is more important than the total intake of fat.**

## **Coconut Nutrition Facts Panel**

<b>Nutrition Facts</b>		
Serving Size: 1 cup, shredded (80g)		
<b>Amount Per Serving</b>		
<b>Calories</b>	283	Calories from Fat 241
<b>% Daily Value*</b>		
<b>Total Fat</b>	26.79 g	<b>41%</b>
Saturated Fat	23.76 g	<b>119%</b>
Trans Fat		
<b>Cholesterol</b>	0 mg	<b>0%</b>
<b>Sodium</b>	16 mg	<b>1%</b>
<b>Potassium</b>	284.8 mg	<b>8%</b>
<b>Total Carbohydrate</b>	12.18 g	<b>4%</b>
Dietary Fiber	7.2 g	<b>29%</b>
Sugars	4.98 g	
Sugar Alcohols		
<b>Protein</b>	2.66 g	
<b>Vitamin A</b>	0 IU	0%
<b>Vitamin C</b>	2.64 mg	4%
<b>Calcium</b>	11.2 mg	1%
<b>Iron</b>	1.94 mg	11%

**One cup shredded coconut:** provides 41% of your daily intake of fat with 119% saturated fat – Wow – that’s a lot of saturated fat but it is in one cup! It also provides 284 mg of potassium which is heart healthy.

## Coconut Oil

Nutrition Facts	
Serving Size: 1 Tbsp (14 g)	
Servings Per Container: 109	
Amount Per Serving	
Calories 120	Calories from Fat 120
% Daily Value*	
<b>Total Fat</b> 14 g	<b>22%</b>
Saturated Fat 12.5 g	<b>63%</b>
Polyunsaturated Fat .5 g	
Monounsaturated Fat 1 g	
Trans Fat	0%
<b>Cholesterol</b> 0 mg	<b>0%</b>
<b>Sodium</b> 0 mg	<b>0%</b>
<b>Total Carbohydrate</b> 0 g	<b>0%</b>
<b>Protein</b> 0 g	
Percent Daily Values are based on a 2,000 calorie diet.	

Ingredients: 100% organic unrefined cold-pressed extra-virgin coconut oil.

No trans or hydrogenated fat; no cholesterol or hexane.  
No refrigeration required; sold at room temperature and melts at 76 degrees.

Looking at the coconut oil nutrition label more closely, we can see that the total fat amount is so high for only one Tablespoon – 22% of daily intake.

- All of its calories are from fat alone, so it provides no nutritional benefit at all.
- You are just adding fat and calories to your diet when cooking with coconut oil.
- Also, the saturated fat is really high in the coconut oil as well – 63% of daily intake.
- No cholesterol because from fruit source.

**Current suggested uses of coconut oil:**

- Psoriasis
- Heart disease
- Obesity
- Head lice
- Newborn weight gain
- High Cholesterol
- Diarrhea
- Dry skin
- Alzheimer's disease
- Diabetes
- Crohn's Disease
- Irritable Bowel Syndrome
- Thyroid conditions

**There is a lack of scientific based evidence for use of coconut oil with these conditions.**

## **Myths:**

- **Myth 1: Miracle food that is considered a cure-all.**
- **Myth 2: You will lose weight by adding coconut oil to your existing diet.**
- **Myth 3: Coconut oil will boost your metabolism and help you burn fat.**
- **Myth 4: Coconut oil is an appetite suppressant, helping you lose weight without trying.**

## **Debunking the myths:**

- **A myth that coconut oil is the cure-all miracle food that helps with making teeth whiter, skin brighter, weight loss, and the list goes on and on.**
- **FDA issued a warning to a marketer of coconut oil for misleading and unsubstantiated health and nutrition claims.**
- **Lack of scientific based evidence to support the uses of coconut oil.**
- **Coconut oil is high in saturated fat and calories, which contradicts the myth about coconut oil being the “cure-all” healthy oil to consume.**
- **You will not lose weight by simply adding coconut oil to your diet, if anything you are just adding extra calories to your diet.**
- **Even when consuming a large dose of coconut oil, the thermogenic effect of is small and does not compensate for the calories ingested which will add to weight gain.**
- **The power of coconut-oil derived ketones that suppress the appetite is minimal considering the rest of the diet an average person intakes.**



## **Benefits of Coconut Oil**

- It is more resistant to spoiling than other popular cooking fats.
- For vegans, it is an effective butter substitute in baking or sautéing.
- A light, slightly sweet flavor that pairs well with many dishes.
- *Slightly less* calorically intensive than some other fats.
- Often minimally processed and more predictable than other products, such as soybean oil in its quality and sourcing.

**Most of these benefits are cooking related but not health related in any way!**

## Coconut Water

- The latest health craze
- Naturally refreshing, coconut water has a sweet, nutty taste.
- Contains easily digested carbohydrate in the form of sugar and electrolytes.
- A clear liquid in the fruit's center that is tapped from young, green coconuts.
- Coconut water is low in carbohydrates and sodium and rich in potassium.
- Scientific evidence doesn't support the hype of the product's "benefits."



100% Juice

Nutrition Facts	
Serving Size 8 FL. OZ. (240 ML)	
Servings Per Container About 2	
Amount Per Serving	
<b>Calories</b> 45	
	<b>% Daily Value*</b>
<b>Total Fat</b> 0g	<b>0%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	<b>0%</b>
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 25mg	<b>1%</b>
<b>Potassium</b> 470mg	<b>13%</b>
<b>Total Carbohydrate</b> 11g	<b>4%</b>
Sugars 11g	
<b>Protein</b> 0g	
Vitamin C 100%	Calcium 4%
Magnesium 4%	Phosphorus 2%
Not a significant source of Fat, Cal., Fiber, Vitamin A and Iron.	
*Percent Daily Values are based on a 2,000 calorie diet.	
<b>INGREDIENTS:</b> COCONUT WATER, LESS THAN 1% NATURAL FRUIT SUGAR, VITAMIN C	

Here is the nutrition label for pure coconut water:

- I wanted to point out the high level potassium that is in coconut water
- As well as point at that there is no other high nutritional benefit for coconut water besides a little bit of sugar.
- **So basically you are only drinking the coconut water for potassium.**

## **Good sources of potassium:**

- Sweet potatoes – 694 mg
- Beet greens – 644 mg per ½ cup
- Beans – 600 mg per ½ cup
- Yogurt – 579 mg
- Clams – 534 mg per 3 ounce serving
- Prune juice – 530 mg per ¾ cup
- Carrot juice – 500 mg per ¾ cup
- Tuna – 500 mg per 3 ounce serving
- Soybeans – 500 mg per ½ cup
- Winter squash – 448 mg per ½ cup
- Bananas – 400 mg
- Non-fat Milk – 382 mg per cup
- Orange juice – 355 mg per ¾ cup

**If you are needing additional potassium in the diet or struggling to meet your needs, there are other alternatives besides drinking coconut water that will also provide other nutrients as well.**

- **The highest amount of potassium can be found in sweet potatoes.**
- **Everyone thinks of a banana when they think of a high potassium food, even though it does have a high amount per serving there are even better options.**

# What did you learn?

1. What type of fat is coconut oil?
  - A) Trans fatty acid
  - B) Unsaturated fatty acid
  - C) Saturated fatty acid
  
2. Will coconut oil improve cholesterol levels?
  - A) Yes, it will improve cholesterol levels.
  - B) No, it will not improve cholesterol levels.
  - C) There is a lack of evidence to support either way.
  
3. Which product helps improve weight loss?
  - A) Coconut water
  - B) Coconut oil
  - C) Both
  - D) Neither

## Answers:

1. C. Saturated Fat
2. C. There is lack of evidence
3. D. Neither

## Take Home Points:

1. If you follow the Standard American Diet and consume predominantly convenience food, high fat, fried foods, high sodium and high sugar foods, then adding coconut oil to your diet is not recommended.
2. Coconut oil may be an appropriate fat in moderation for individuals who follow a strict vegetarian or vegan diet because it provides them with a source of saturated fat. It would not be a good fat choice for anyone following a Paleo diet, even though it is commonly used.
3. The current US Dietary Guidelines (2015) recommend that less than 30% of total calories come from fat and that we limit saturated fat (from meats, whole dairy, eggs and oils such as palm oil, and coconut oil) to less than 10% of total fat.
4. Coconut oil is a saturated fat oil and one way you can tell that is because it is solid at room temperature just as butter is solid at room temperature and is also a saturated fat.
5. Consumption of a diet high in saturated fat from meats, coconut oil or palm oil has been linked with increased risk of heart disease, diabetes, cancer, and inflammation by many studies.
6. Any further questions, please contact me at [ferroli@purdue.edu](mailto:ferroli@purdue.edu)

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