



# The Swiss Army Knife of the Plant Kingdom: The Coconut

by **Jessiana Saville**, RD, owner of [kidneygrub.com](http://kidneygrub.com)

There are few foods as versatile as coconut. It is edible, drinkable, and wearable. It is currently one of the hottest food and health trends buzzing through grocery stores, restaurants, blogs, books, and magazines. It is touted as being able to whiten teeth, fight infection, clear acne, and solve a myriad of chronic diseases. There are so many health claims surrounding coconut at this time that it seems to be the holy grail of food. Food manufacturers have taken note of this.

Coconut is no longer just the packages of sweet white flakes in the baking aisle or your tropical drink next to the pool in the Bahamas. Coconut now can be readily found in all stores in a dizzying variety of products. Coconut sugar for your coffee? Check! Coconut creamer, too? Why, yes. How about some coconut chips for lunch with a coconut butter and jelly

sandwich and a cookie made from coconut flour? Yes, yes, and yes. Oh, and thirsty? We have coconut water, coconut milk, coconut milk beverage, and even coconut soda.

For patients with kidney disease, coconut is generally found on the “limit” list due to the high potassium content of more traditional coconut products made from the flesh or water (aka shredded coconut or coconut water). There are, however, a few coconut products that can be enjoyed. And, of course, a slew of new products to watch out for!

**High Potassium Coconut Products – Don’t let the health hype give you hyperkalemia!**

Bad news out of the way first! The potassium in coconut is found in the flesh and fluids of coconuts. The following chart shows some common coconut products and their potassium content. If you’re watching your potassium, these items



should be consumed in limited quantities. That doesn't mean none, but it does mean watching portion size. Culinary tricks, such as toasting your coconut, can help enhance the flavor and decrease the need for a large portion.

COCONUT PRODUCT/ SERVING SIZE	MILLIGRAMS OF POTASSIUM
SHREDDED COCONUT, 1 CUP	434 MG
COCONUT WATER, 1 CUP	404 MG
COCONUT MILK, 1 CUP (THE KIND IN A CAN)	467 MG
COCONUT CREAM, 1 CUP	780 MG
CREAM OF COCONUT, 1 CUP	~400-450MG
COCONUT BUTTER	N/A – THIS PRODUCT IS JUST PULVERIZED COCONUT FLESH SO IT IS SAFE TO ASSUME IT IS VERY HIGH IN POTASSIUM
COCONUT FLOUR, ¼ CUP	367 MG

#### Can-Do Low-Potassium Coconut Products for People with Kidney Disease:

**Coconut Milk Beverage** – milk replacement: Coconut milk beverage is marketed as a milk substitute. It should not be confused with coconut milk from the can (which is very high in potassium). It can be found nestled nicely among its other rectangular carton milk alternative friends, usually in the “organic” or “natural” aisle in a store. The So Delicious® coconut milk beverage rings in at 45 calories, 40 mg of potassium (compared to 366 mg in a cup of milk), and 15 mg of sodium (woohoo!). It does contain some phosphate additives due to the calcium and magnesium fortification, but otherwise fits in a kidney-friendly diet nicely. While coconut milk beverage fits the renal nutrition profile, flavor-wise it is disappointing. Despite my most vigorous shaking of the carton, the coconut flavor is very mild, almost non-existent. However, for a recipe calling for coconut water, this could be a reasonable substitute.

**Coconut Sugar** - Coconut palm sugar or coconut sugar is a variety of sugar made from sap that is extracted from the coconut tree. It has no flavor resemblance to coconut so if you're after a coconut flavor, coconut sugar won't do much for your recipe. Health-wise, it has the same carbohydrate profile as regular cane sugar although it is touted as having a low glycemic index. This means, if you're diabetic, it still will raise your blood glucose levels like sugar. It has the same potassium and phosphorus as regular sugar (which per 1 tsp serving is none),

so it is a green-light coconut product for those with kidney disease, though there doesn't seem to be any extra benefit to using it over other sugar products.

**Coconut Oil:** Coconut oil is a fat. It is specifically high in saturated fat, which has kept it on the “limit” list of many health organizations. There is a good deal of scientific debate about the whether or not coconut oil is “healthy” or not. This is a topic for another day. Nutritionally, coconut oil has no potassium, phosphorus, or sodium making it a reasonable choice for people with kidney failure. As with all fats, it should be used in moderation.

**Coconut Extract:** If you love coconut and have been limiting it due to its potassium content, then coconut extract is something to begin stocking in your cupboard. Like all baking extracts, a small amount (as in <1 tsp) goes a long way in creating a potent flavor. Coconut extract can be used in a variety of recipes to cut back

**Coconut Milk Substitute:** 1/3 cup rice or almond milk, 1 teaspoon cornstarch, 1/2 teaspoon coconut extract, 2 teaspoons oil. Combine milk, oil, and cornstarch in small saucepan. Stir constantly over high heat until mixture boils and thickens. Immediately pour into small bowl; stir in extract. Cool.

Great for use in curries or other sauces.

on coconut content while still maintaining a wonderful coconut flavor. It has no potassium or phosphorus in it.

**Coconut Soda:** Most coconut sodas on the market are





carbonated water with added flavor. As long as the product isn't a "sparkling coconut water," then this can be a great choice. Refresco Goya makes a coconut soda that is not only tasty, but low potassium, and free of phosphate additives.

#### **How to make coconut a "can-do" food:**

Love coconut? People with kidney failure can make coconut work for them with creativity. Coconut shrimp curry with a tall glass of sparkling coconut water and a slice of Aunt June's famous coconut cake is probably out. But, how about sprinkling 1-2 tablespoons of toasted coconut flakes on your oatmeal? Yes and double yes, since toasting makes the flavor really shine. Making a cake using coconut extract instead of vanilla extract? Absolutely. Mixing up a refreshing afternoon cocktail using coconut milk beverage, a touch of gin, lemon-lime soda, mint and strawberries? Most definitely. Making the renal diet work with coconut is definitely possible with a little culinary creativity.

#### **Kidney Friendly Coconut Cake!**

##### **INGREDIENTS**

##### **For the Cake:**

- 3 cup all purpose flour
- 2 cup sugar
- 1 Tbsp baking powder\*
- 1 cup rice milk
- 1 cup butter\*
- 2 tsp coconut extract
- 5 egg whites
- 1/4 cup coconut flakes, optional for garnish

##### **For the Icing:**

- 2 tablespoons all-purpose flour
- 1/2 cup rice milk
- 1/2 cup butter, softened
- 1/2 cup sugar
- 1 teaspoons coconut extract

##### **INSTRUCTIONS**

1. Preheat oven to 350° and grease 2 (9 inch) round cake pans. Line with parchment paper. Grease and flour parchment paper. Set aside.
2. Allow eggs whites to sit out at room temperature for 30 minutes before using.
3. In a small bowl, mix milk and coconut extract together. Set aside.
4. In a medium bowl, beat butter until creamy. Add sugar. Mix until light and fluffy. Add flour and baking powder, into the butter mixture, alternating with the milk and coconut mixture. Set aside.
5. Beat egg whites until stiff peaks form. Fold gently into cake batter. Pour into prepared pans. Spread with spatula to cover pans completely with batter.
6. Bake at 350° for approximately 30 minutes or until wooden tooth pick inserted in the center comes out clean. Place on cooling rack for 10 minutes then removed from pans, set cakes on cooling rack and discard parchment paper.
7. For the Icing: In a medium-size saucepan, whisk the flour into the milk until smooth. Place over medium heat and, stirring constantly, cook until the mixture becomes very thick and begins to bubble, 10-15 minutes. Cover with waxed paper placed directly on the surface and cool to room temperature, about 30 minutes.
8. In a large bowl, on the medium high speed of an electric mixer, beat the butter for 3 minutes, until smooth and creamy. Gradually add the sugar, beating continuously for 3 minutes until fluffy. Add the coconut and beat well.
9. Add the cooled milk mixture, and continue to beat on the medium high speed for 5 minutes, until very smooth and noticeably whiter in color. Cover and refrigerate for 15- 20 minutes. Use immediately!
10. Toast coconut flakes in oven for 7 minutes. Garnish with toasted coconut flakes.

**\*Recipe Notes:** To decrease phosphorus in your recipe use Ener-G Baking Powder substitute or  $\frac{3}{4}$  tsp cream of tartar +1½ tsp baking soda.

\*To decrease the fat and calories in the recipe you may also replace  $\frac{1}{2}$  the coconut oil with applesauce

##### **Nutrition Facts: 1/10 of cake**

656 kcal, 85 gm carbohydrates, 32 gm fat., sodium 44mg, 6 gm pro, potassium 93 mg, phosphorus 74 mg,

\*This is not a low calorie or low carb recipe. For patients with diabetes, consider a small portion or limit the amount of icing applied to the cake. ●