CASSAVA FLOUR
How-To
+12 RECIPES!

BY DR. SARAH BALLANTYNE, PhD
Cassava is one of my favorite starchy root vegetables. It’s quite delicious and, even though its texture and flavor are reminiscent of the potato, it’s not a nightshade. That makes it an amazing AIP-friendly alternative! Since I get many questions about this unique veggie and, since preparing it properly is essential, I put together this complete cassava resource. Scroll to the bottom for my favorite cassava-based recipes!

**WHAT IS IT?**

Cassava root, *Manihot esculenta* (also known as Yuca or manioc), is a woody shrub native to South America, so it is used in a wide variety of traditional South American dishes. In fact, it is the third largest source of carbohydrates in the tropical diet (rice and corn being the other top sources)! The cassava root goes by different names, depending on the area of the world in which it is being grown, including yuca, manioc, and tapioca. There are two types of cassava plant: sweet and bitter. The kind that is most often used to make cassava flour and tapioca starch is sweet, though bitter is sometimes used.

Traditionally, cassava flour comes from dehydrated, sundried or fermented cassava root that is ground into a flour.

A cursory view of the scientific literature would reveal that raw cassava does have some anti-nutrients, including phytate, oxalate, and cyanide; however, the preparation and baking of cassava reduces the potency of these, and some of them also have antioxidant properties, such as tannins.
A concern I get a lot about Cassava is cross contamination, especially on the AIP. Notably, cassava flour was originally reported to be a gluten cross-reactor by Cyrex Labs (unpublished, proprietary data), but published research has since shown that it is not. For more information on this subject, see my blog post on Gluten Cross-Reactivity: How your body can still think you’re eating gluten even after giving it up.

Many traditional cultures prepare cassava by fermenting it, which reduces the anti-nutrient content even further. Most of my recipes involving whole cassava require boiling, even if you’ll later bake the cassava, because boiling acts to reduce the anti-nutrient content as well. In general, the natural preparation that goes into making cassava flour and tapioca starch, plus the act of cooking it before consuming it, makes it easier on digestion than grains.

**COOKING WITH CASSAVA**

I love to boil and bake my cassava into fries for a simple side. I’ve also seen it used to make flatbreads, dough and more! However, I’ve been particularly inspired lately by the possibilities of grain-free baking with Otto’s Cassava Flour. Otto’s Cassava start their natural preparation of the root into flour within 36 hours of harvest. They bake their cassava root (instead of ferment) for a cleaner flavor as sometimes fermentation can cause sour smell or taste. I find it to be a superior option to other flours because it uses the entire cassava root (after it has been peeled, washed, sliced, pressed, baked, and then milled), meaning it is a whole food flour. Unlike tapioca starch, cassava flour is not just a separated starch, so it keeps the fiber, protein, minerals, vitamins, that would otherwise be lost in making tapioca starch (essentially, a more processed form that is used as a thickener in Paleo cooking and baking). Cassava flour is a good source of nutrition, so we can feel even better about including it in our Paleo diet!
Despite being heavy on the carbohydrate (almost 28g per 1/4 cup), the carbohydrates in cassava are healthy, slow-burning, starches. Cassava has a Glycemic Index of 46 (that’s considered low) and Glycemic Load of 12 (that’s considered medium). Cassava flour is also a good source of fiber (3g per 1/4 cup). Compared to many alternative flours (which tend to be stripped of their natural fiber content during preparation), cassava flour is a rich source of nutrients; vitamin C, vitamin A, vitamin K, and folate are some of the highlights! In comparison, tapioca starch has much less by way of micronutrients and fiber, which is one of the reasons why whole cassava flour is featured more heavily in my recipes.

Indeed, the chemistry of cassava flour is so amazing and unique compared to other Paleo flour substitutes, making it a great all-purpose flour that has inspired new recipes that were just not possible before. That is why I decided to round up all of my cassava recipes into one place. Enjoy these tasty Paleo eats!
CASSAVA OVEN FRIES

**PREP TIME**
15 minutes

**COOK TIME**
1 hour

**SERVES**
4-6

2 ½ lbs cassava (also called yuca, manioc, tapioca root)
½ cup lard or duck fat (or half and half of each), melted
1 ½ tsp salt, to taste

1. Bring a large pot with 3” of boiling water to a boil on the stovetop.
2. Meanwhile, peel cassava. Cut big cylinders, about 3-4” long, down the length of the cassava. Cut each cylinder in half lengthwise, and then cut each half lengthwise again 2-3 times to make large wedges. Cassava can have a long stringy thread running down the middle of it—if you see that, trim it off your wedges.
3. Add cassava wedges to boiling water and boil, uncovered, for 10 minutes. Meanwhile, preheat oven to 375F. (Tip: place your rimmed baking sheet with your lard in the oven while it’s preheating to melt your lard. It also speeds up the cooking a bit for that pan to be nice and hot when you add the cassava wedges. Just be careful!)
4. Drain cassava completely. Toss with lard on a rimmed baking sheet. Bake for 40 minutes, stirring and flipping at the 15 minute mark, 25 minute mark, and 35 minute mark. Cooking time will vary based on just how thick your wedges are. They may be done at 35 minutes or 45. You want them to be turning golden brown and be crisp on the outside. If you aren’t sure, put them back in for a few more minutes (they are fairly forgiving, especially if they are thick wedges).
5. Sprinkle and toss with salt, to taste. Serve!
DINNER ROLLS

PREP TIME
15 minutes + 1 hr rising time

COOK TIME
20 minutes

SERVES
12 rolls

½ cup warm water (100-110F)
1 Tbsp honey
1 Tbsp dry active yeast
4 eggs
¼ cup ghee or unsalted butter or lard, plus another 2 Tbsp, melted for brushing
2 ¼ cups Otto’s cassava flour
1 tsp salt

1. Proof yeast by stirring into warm water with honey. Let sit for 5 minutes until foamy.
2. Place eggs and ghee in a blender and blend on high for 1 minute, until light and foamy.
3. Combine cassava flour and salt in a mixing bowl. Pour egg mixture and yeast mixture into the cassava flour. Work into a stiff dough (if you’re dough doesn’t hold together, add another tablespoon of water; or if you’re dough is too sticky, add another tablespoon or two of cassava flour).
4. Divide dough into 12, and roll each part into a ball (about 2” in diameter). Line a 9×9” baking pan with parchment paper. Arrange rolls in baking pan, with about ½” space between them.
5. Place rolls in a warm corner (or if you have a warming/proofing feature on your oven, that’s even better!) and let rise for 1 hour.
6. Preheat oven to 375F.
7. Brush the top of the rolls with melted ghee, butter or lard.
8. Transfer rolls to oven and bake for 20-22 minutes.
9. These rolls are great warm or room temperature! Keep rolls in an airtight container on the countertop for up to a couple of days (they will dry out a bit over that time), or freeze for longer storage. Enjoy!
AIP DINNER ROLLS

PREP TIME
15 minutes

COOK TIME
25 minutes

SERVES
6 rolls

1 1/2 cup chopped green plantain (about 1 medium)
   [see my video on plantains here]
1/4 cup extra virgin olive oil
1/2 tsp salt
1/3 cup coconut milk (or substitute with 1/4 cup water and an additional tablespoon evoo)
1 cup Otto’s cassava flour

1. Preheat oven to 425F.
2. Combine plantain, olive oil, salt and coconut milk in a blender and blend on high for 1-2 minutes, until a completely smooth puree.
3. Invert puree into a mixing bowl. Add cassava our and work into the puree until a sticky rm dough forms.
4. Divide dough into six and roll each part into a ball (about 2” in diameter). Place on a baking sheet. If desired, cut an ‘X’ with a sharp knife about 1/4 “ deep at the top of each dough ball.
5. Bake for 25 minutes.
6. Remove from oven and let cool at least 5 minutes before serving.

NOTE: This recipe doubles really well. These rolls are best enjoyed still warm (or cooled to room temperature) on the same day they are baked (like all baked goods make with plantain, they tend to dry out after a day or two). Store any leftovers in an resealable bag in the fridge or freezer and gently warm to room temperature or “warm roll temperature” before serving.
PALEO BISCUITS (NUT-FREE)

1 ¾ cups mashed cassava (about 1 pound), cooled
3 tbsp tallow (or substitute unsalted butter or palm shortening)
½ cup arrowroot flour
2 tbsp coconut flour
½ tsp salt
1 egg
¼ tsp baking soda
½ tsp cream of tartar
2 Tbsp minced fresh chives (or scant 2 Tbsp of good quality dried chives)

1. Line a cookie sheet with parchment paper. Preheat oven to 400F.
2. Melt tallow in the microwave or in a small pot on the stove (you can substitute with butter or palm shortening or use a combination).
3. Mix all ingredients together in a small bowl. This makes a very stiff dough so it might be easier to just knead it together with your hands.
4. Pour out the dough onto a sheet of parchment paper. Mold it into a rough circle approximately 1/2” thick (I found it faster to just form it with my hands than use a rolling pin, but that would work too). Use a 2” Biscuit Cutter to cut out dough and place rounds on the prepared baking sheet. Keep reforming dough to cut out biscuit rounds until all dough is used (the last biscuit is always a little funny looking, but that’s okay).
5. Melt another 1 Tbsp tallow and use to brush the tops of the biscuits with a Pastry Brush.
6. Bake for 23-25 minutes until just starting to turn golden brown on the top.
7. Enjoy warm or let cool on a wire cooling rack.
Paleo Flour Tortillas

**Prep Time**: 30 minutes  
**Cook Time**: 1 hour  
**Serves**: 8 tortillas

- 1 1/2 cups Otto’s cassava flour
- 3/4 tsp salt
- 1/4 tsp cream of tartar
- 1/8 tsp baking soda
- 3/4 cups warm water
- 6 Tbsp extra virgin olive oil or avocado oil

1. Combine flour, salt, cream of tartar and baking soda in a mixing bowl. Add oil and water and mix with a wooden spoon or your hands until a stiff dough forms. If dough is sticky, use a bit more flour. If the dough is crumbly, add a bit more olive oil.

2. Divide dough in half, then in half again to create 8 fairly equal portions. Form each piece into a ball.

3. Place one dough ball at a time on a silicone baker’s mat, parchment paper or wax paper and flatten with the palm of your hand as much as possible. Cover flattened dough with a sheet of parchment paper or wax paper. Roll dough into a very flat rough circle, about 8-10 inches in diameter. Carefully remove the bottom silicone mat or parchment paper, so the rolled-out tortilla is stuck to one piece of parchment paper or wax paper. Set aside and roll out the remaining dough balls (when they’re stuck to parchment or wax paper, you can easily stack them in preparation for cooking).

4. Preheat a 10” or larger skillet (a well-seasoned cast iron or enameled cast iron pan works well) over medium heat (medium-high heat if using a stainless steel pan).

5. When pan is hot, peel one rolled-out raw tortilla off its parchment or wax paper and place into pan. Cook about 1 minute or until bottom surface has a few pale brown spots. The top surface will begin to show a few little bubbles. Flip and cook for about 30-45 seconds. [Ideally, the tortillas will be soft with a few small pale golden brown spots on surface. If tortilla is browning too fast, reduced heat a bit. If it’s taking longer than a minute to see a few pale golden brown spots on underside of tortillas, increase heat a bit.] Remove from pan with tongs and stack in a covered container until all tortillas are cooked.

6. Serve warm or allow to cool for later use. Store in an airtight container or resealable plastic bag at room temperature for 24 hours or can be frozen indefinitely. To freeze, separate tortillas with parchment paper or waxed paper and place in a zippered bag before placing in freezer.
CHOCOLATE BANANA BREAD

PREP TIME 1 hour
COOK TIME 15 minutes
SERVES 1 loaf (about 12-16 servings)

1 1/4 cups chopped raw walnuts
2 cups mashed very ripe bananas (about 4 large or 5 medium bananas)
3 oz unsweetened or very dark chocolate, grated
6 Tbsp ghee, butter, lard, or palm shortening melted
1/4 cup full fat coconut milk or coconut cream
1 Tbsp apple cider vinegar
1 tsp vanilla
1 1/4 cups Otto’s cassava flour
1/2 tsp salt
3/4 tsp baking soda

1. Preheat oven to 350F. I think a silicone pan is always the best for Paleo baking, but you can use a standard stainless steel loaf pan too. Prepare a loaf pan by greasing with any fat (lard, coconut oil, butter, ghee, palm shortening, etc.) and “flouring” with cassava flour (you could use arrowroot powder here too for a cheaper alternative). Tap out excess flour.

2. Spread walnuts over a rimmed baking sheet. Bake for 5 minutes to toast. Let cool slightly before adding to batter.

3. Meanwhile, thoroughly mash bananas. Grate chocolate with a box grater or microplane zester. Add to mashed bananas.

4. Mix in ghee (or other fat), coconut milk, apple cider vinegar, and vanilla.

5. In a separate bowl, mix cassava flour with salt and baking soda.

6. Add cassava flour mixture to banana mixture. Stir to form a thick batter. Fold in toasted walnuts.

7. Pour into prepared loaf pan and spread the top out so that it’s even. Bake for 1 hour and use the toothpick test to check for doneness (poke a toothpick in the middle of the loaf; if it comes out gummy, give it an additional 5-10 minutes of baking time).

8. Let cool in the pan for 5 minutes and then remove and transfer to a cooling rack. Let cool completely before serving (it’s tasty warm, but the texture is better cooled).

9. Slice and enjoy! Store leftovers in an airtight container on the counter for up to a few days or in the fridge or freezer for longer.
NANA’S RHUBARB COFFEE CAKE

FOR THE CRUMB TOPPING
2 Tbsp ghee, melted
2 Tbsp maple sugar
½ tsp cinnamon
¼ cup Otto’s cassava flour
Optional: ½ cup chopped pecans

FOR THE CRUST
1. Preheat oven to 325F. Grease a 7”x10” or an 8”x8” baking dish with lard, coconut oil, or ghee.
2. Add lard, honey and egg to the bowl of a standing mixer. With whisk attachment at medium speed, cream together until light and fluffy, about 3-4 minutes.
3. Meanwhile, combine apple cider vinegar and coconut cream (tip: add vinegar to the bottom of a measuring cup and then pour in coconut cream to the 3/4 cup line). Add 1 tsp baking soda and let sit for 2 minutes. (Caution: it will froth and expand, so use at least a 2 cup size measuring cup or do this step in a mixing bowl.)
4. Combine cassava flour, spices, remaining baking soda and salt.
5. With mixer on low, add thirds of flour mixture and coconut cream mixture, alternately. Once fully incorporated, remove whisk attachment and fold in rhubarb by hand.

FOR THE CAKE
½ cup lard
¼ cup honey
1 egg
¼ cup less 1 tablespoon coconut cream
1 tablespoon apple cider vinegar
2 teaspoon baking soda, divided
1 2/3 cups Otto’s cassava flour
½ teaspoon allspice
½ teaspoon cardamom
½ teaspoon salt
3 cups finely diced rhubarb

PREP TIME
15 minutes

COOK TIME
1 hour

SERVES
12-16
6. Pour batter into prepared baking dish.
7. Make the crumb topping. Combine ghee, maple sugar, cinnamon and cassava in a small bowl. With your fingers, gently drop crumbs onto the surface of the cake batter, breaking up any bigger pieces as you go.
8. Sprinkle chopped pecans over the top of the cake, if using.
10. After 10 minutes, increase oven temperature to 350F. Cook for a further 50 minutes.
11. Remove from oven and let cool before serving.
STRAWBERRY RHUBARB COBBLER

PREP TIME
20 minutes

COOK TIME
30 minutes

SERVES
8-10

FOR THE BISCUITS
1. Mix dry ingredients together in a large bowl.
2. Cut lard into dry ingredients.
3. Add coconut cream until the dough is soft and leaves the side of the bowl.
4. Roll out dough 3/4 inches thick.
5. Use a 2 inches biscuit cutter to make into 9-12 biscuits.

FOR THE COBBLER
6. Preheat oven to 400F.
7. Meanwhile, simmer chopped rhubarb and maple syrup until rhubarb is soft but not mushy, about 8 minutes.
8. Mix arrowroot powder with water and pour into rhubarb. Stir constantly until it thickens, about 1 minute.
9. Remove from heat and fold remaining ingredients into warm rhubarb.
10. Pour rhubarb mixture into a 9” x 9” baking dish. Arrange biscuits on the top of the rhubarb mixture. Mix cinnamon and maple sugar together and sprinkle over the top of each biscuit (this step is optional).
11. Bake 20 minutes. Let cool at least 15 minutes before serving. Enjoy!

FOR THE BISCUITS
1 1/2 cups of Otto’s cassava flour
1 tsp baking soda
1 tsp cream of tartar
1/4 tsp salt
1/4 tsp cinnamon
1/4 tsp cardamom
4 Tbsp lard, cold
3/4 cup coconut cream

FOR THE PIE
1 1/2 lbs. rhubarb (5-6 cups chopped)
1/2 cups of maple syrup
3 Tbsp arrowroot powder
3 Tbsp water
1 1/2 lbs. strawberries
1/2 tsp vanilla
2 tsp orange zest
1 batch biscuits (above)
1 tsp cinnamon, optional
1 Tbsp maple sugar, optional
CARAMEL-BACON DOUBLE CHOCOLATE BROWNIES

**PREP TIME**
30 minutes + cooling

**COOK TIME**
30 minutes

**SERVES**
18-24 brownies

**FOR THE CARAMEL**
- 1 cup honey
- 1 cup coconut cream (or use the top thick part of probably 2 cans of chilled full fat coconut milk)
- dash salt

**FOR THE BROWNIES**
- 15 Medjool dates, pitted
- 3/4 cups hot water
- 10oz bittersweet (72% or darker) chocolate, chopped
- 2/3 cups lard (or sub butter, ghee, or palm shortening)
- 4 eggs
- 1/2 tsp salt
- 1 tsp baking soda
- 1 cup Otto’s cassava flour

1. Combine room temperature honey, coconut cream and salt in a medium, heavy-bottomed pan. Whisk to thoroughly combine. Attach candy thermometer to the side of the pan.
2. Turn element on to medium-low. Heat until it reaches 230F (don’t go over 232F). No need to stir initially. Around 220F, it will start to bubble... if it looks like it’s going to bubble over (it probably won’t, but it can be nerve-racking), stir it a little to pop some of the bubbles. This should take 20-30 minutes and is pretty hands off, so be patient (but don’t leave the kitchen!).
3. Once it reaches 230F (it’s helpful if you have a thermometer with an alarm), remove from the heat. Let the caramel cool down to under 180F, or better yet room temperature, before drizzling on the brownies.
4. Soak pitted dates in hot water for 20 minutes to reconstitute.

**FOR THE BROWNIES**

5. Preheat oven to 350F. Grease a 9”x13” baking pan, line with wax paper, and grease the wax paper. Alternately, use a silicone baking pan.

6. Meanwhile, melt chocolate and lard over a double boiler or medium power in the microwave. Let cool while you wait for the dates to finish soaking.

7. After dates have soaked, blend dates, water, and eggs together in a blender for 1-2 minutes on high until a completely smooth puree forms.

8. While whisking melted chocolate quickly, gradually pour in egg and date mixture. Whisk until fully combined and batter turns shiny, about 30 seconds to a minute.

9. Mix in salt, baking soda and cassava flour.

10. Fold in chocolate chips and Bacon Bits.

11. Pour batter into prepared pan, and smooth out into the corners to form a uniform surface.

12. Bake for 20 minutes. Remove from the oven and let cool in the pan.

**TO ASSEMBLE THE CARAMEL-BACON DOUBLE CHOCOLATE BROWNIES**

13. Once brownies and caramel have cooled, first cut brownies into squares in the pan. Then drizzle liberally with about 2/3 to 3/4 of the caramel (reserving the extra for serving).

14. Sprinkle Bacon Bits over the caramel.

15. Serve a la mode with a little extra drizzle of caramel, if desired.

16. Store leftovers in an airtight container on the countertop for a couple of days, fridge for up to a week, or freezer for longer storage.
APPLE PIE

**Prep Time**
30 minutes

**Cook Time**
1 hour

**Serves**
8

### For the Crust
1. Mix salt and cassava flour in a mixing bowl. Add lard and using a wire wisk or two knives, cut into the cassava flour until the mixture resembles dry oatmeal in texture and the largest pieces of lard are no bigger than a pea.
2. Add ice water one tablespoon at a time, and work into dough. Stop as soon as the dough holds together easily.
3. Place dough in fridge while you prepare the filling.

### For the Filling
4. Combine all filling ingredients and toss to thoroughly coat apple slices.
5. Preheat oven to 350F.
6. Divide dough in half. Roll out with a rolling pin on a sheet of parchment paper to 1/4” thick or slightly thinner. Carefully transfer dough to a 9” pie plate. Make sure the dough lines the plate well (take the time to fill in any cracks that form during the transfer and making the edges look nice).
7. Pour filling into the pie crust.
8. Roll out the other half of the pie dough. You can choose to cut strips of dough for a crosshatch pattern on the top, or simply cover for a double crust pie (remember to cut a couple slits in the top crust for venting).
9. Bake for 1 hour.

**NOTE:** This pie crust holds up really well to storage. Store covered, at room temperature for up to 3 days.
CHOLOCTATE SHEET CAKE

20 oz. bittersweet chocolate
1 cup avocado oil (or sub olive oil or coconut oil or a mix)
1 cup honey
8 eggs
1 1/2 cups Otto’s cassava flour (sift before measuring)
1 tsp Salt
1 1/2 tsps baking soda
1 tsp cream of tartar

1. Preheat oven to 350°F. Grease and “flour” a 9”x13” pan. Coconut oil, butter, ghee or lard all work well for this. Cassava flour, arrowroot flour or tapioca starch can all be used to “flour” the pan.
2. Melt chocolate and avocado oil together over medium heat in a double boiler or under medium power in the microwave, stirring frequently.
3. Combine honey and eggs in a blender and blend until frothy.
4. Temper the eggs by adding a little of the warm chocolate mixture to the eggs while stirring vigorously. Then add the tempered eggs to the chocolate mixture, again, stirring constantly until completely combined.
5. Add remaining ingredients and whisk together until a completely smooth batter forms.
6. Pour into prepared cake pan.
7. Bake for 35-40 minutes, until a toothpick pricked in the middle comes out clean or with just a few dry crumbs on it.
8. Let the cake cool in the pan for 15 minutes, then invert over a cutting board or serving dish, and let cool the rest of the way to room temperature.
9. Frost with whipped coconut cream or chocolate frosting on page 49, if desired.
10. Store leftovers in an airtight container on the counter for up to 5 days.
MOLTEN LAVA CAKE FOR TWO

**PREP TIME**
5 minutes

**COOK TIME**
5 – 8 minutes

**SERVES**
2

2.5 ounces high quality dark chocolate (72% – 85%), chopped
2 Tbsp ghee
2 Tbsp date syrup
Pinch salt
1 egg
2 Tbsp Otto’s Cassava Flour
1/8 tsp baking soda

1. Preheat oven to 450F.
2. To cook in silicone muffin cups (best for if you want to invert the lava cakes on to a place to serve), place four silicone muffin cups on a baking sheet. To cook in ramekins, use two 4oz ramekins (you can also place these on a baking sheet for cooking).
3. Melt chocolate, ghee, date syrup, and salt together over a double boiler or in the microwave on medium power. Be careful not to overheat, stirring well to make sure it’s a smooth shiny texture.
4. In a separate bowl, whisk the egg until it starts to froth.
5. Temper the egg by whisking while adding a spoonful of the melted chocolate mixture. Then add tempered egg to the chocolate mixture, whisking continuously until the batter turns shiny and smooth.
6. Add cassava flour and baking soda and whisk to fully incorporate into the batter. Spoon batter into silicone muffin cups or ramekins (filling about 2/3 – 3/4 full).
7. For muffin cups, bake for 5 minutes. For ramekins, bake for 8 minutes. Serve immediately. Serving suggestions: If you used silicone muffin cups, invert on to a plate to serve. If you used ramekins, simply place the ramekin on a plate to serve. Drizzle extra date syrup on the plate for a pretty red accent. Serve with coconut cream or vanilla coconut ice cream (these can also be drizzled with date syrup), and/or fresh berries. For an extra romantic touch, add rose petals or buds to your plate!