

# What is the Lactose-Free Diet?



Lactose-Free Dietary Handout Created For



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# What is it?

Lactose is a simple sugar, a combination of galactose and glucose, that is present in milk and milk products. In order for lactose to be absorbed by the body in the intestine, the enzyme lactase must be present to split the lactose into the two individual sugars.

A deficiency in lactase results in unabsorbed lactose in the intestines causing a lactose intolerance. Having unabsorbed lactose results in:

- Increased water in the intestinal tract (lactose is osmotic causing diarrhea)
- Bacteria in the intestinal tract can eat the lactose leading to gas, bloating, and cramping<sup>1</sup>

## Types of Lactose Intolerance

**Primary Lactose Intolerance:** This is the most common form of lactose intolerance, it is due to a natural decrease in the production of lactase. This usually occurs during childhood when diets become more diverse and milk consumption decreases. This type of intolerance is genetically determined and more common in those with African, Asian, or Hispanic ancestry.<sup>2</sup>

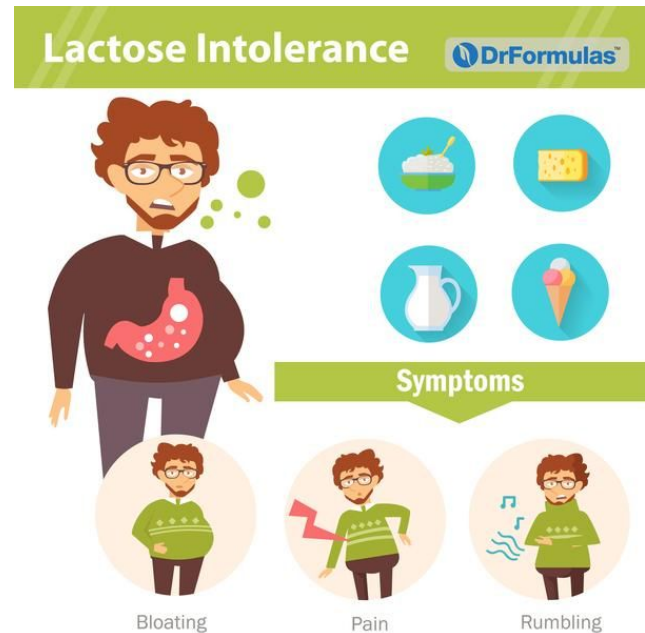
**Secondary Lactose Intolerance:** A secondary lactose intolerance occurs when lactase production in the small intestine decreases or stops due to illnesses, injury, or surgeries affecting the stomach or small intestine. Celiac disease, inflammatory bowel disease, Crohn's disease, ulcerative colitis, and irritable bowel syndrome are some of the common diseases associated with secondary lactose intolerance. Sometimes these conditions can be treated to restore the body's ability to make lactase.<sup>2</sup>

**Congenital Lactose Intolerance:** This is the rarest form where babies are born with a lactose intolerance due to a complete absence of lactase activity. This can also be seen in premature infants who have insufficient lactase levels. These are diagnosed very early in life.<sup>2</sup>

## Supplements and Vitamins

Dairy products are an important source of calcium, vitamin D, and other important vitamins and minerals. Because of this, it may be recommended that certain vitamins and supplements are added to your diet to provide these nutrients. It is important to speak with your doctor or registered dietician before starting any supplements.<sup>3</sup>

Nutrients Lost When Avoiding Milk	Suggested Alternate Sources
Protein, Calcium, Riboflavin, Phosphorous, Vitamins A, D, and B12	Protein sources: meat, fish, poultry, legumes, eggs Fortified milk substitutes Leafy greens Calcium-fortified foods



# The Many Names of Lactose

All of these names can be used on nutrition labels to describe the different forms that lactose can be in. Reading labels is so important to find hiding amounts of lactose even if products may not appear to have milk included.

## CONTAIN MILK

The following ingredients found on a label indicate the presence of milk protein. All labels should be read carefully before consuming a product, even if it has been used safely in the past.

**Milk** — acidophilus milk, buttermilk, buttermilk blend, buttermilk solids, cultured milk, condensed milk, dried milk, dry milk solids (DMS), evaporated milk, fat free milk, fully cream milk powder, goat's milk, Lactaid® milk, lactose free milk, low fat milk, malted milk, milk derivative, milk powder, milk protein, milk solids, milk solid pastes, nonfat dry milk, nonfat milk, nonfat milk solids, pasteurized milk, powdered milk, sheep's milk, skim milk, skim milk powder, sour milk, sour milk solids, sweet cream buttermilk powder, sweetened condensed milk, sweetened condensed skim milk, whole milk, 1% milk, 2% milk

**Butter** — artificial butter, artificial butter flavor, butter, butter extract, butter fat, butter flavored oil, butter solids, dairy butter, natural butter, natural butter flavor, whipped butter

**Casein & caseinates** — ammonium caseinate, calcium caseinate, hydrolyzed casein, iron caseinate magnesium caseinate, potassium caseinate, sodium caseinate, zinc caseinate

**Cheese** — cheese (all types), cheese flavor (artificial and natural), cheese food, cottage cheese, cream cheese, imitation cheese, vegetarian cheeses with casein

**Cream, whipped cream**

**Curds**

**Custard**

**Dairy product solids**

**Galactose**

**Ghee**

**Half & Half**

**Hydrolysates** — casein hydrolysate, milk protein hydrolysate, protein hydrolysate, whey hydrolysate, whey protein hydrolysate

**Ice cream, ice milk, sherbet**

**Lactalbumin, lactalbumin phosphate**

**Lactate solids**

**Lactyc yeast**

**Lactitol monohydrate**

**Lactoglobulin**

**Lactose**

**Lactulose**

**Milk fat, anhydrous milk fat**

**Nisin preparation**

**Nougat**

**Pudding**

**Quark**

**Recaldent**

**Rennet, rennet casein**

**Simplese® (fat replacer)**

**Sour cream, sour cream solids, imitation sour cream**

**Whey** — acid whey, cured whey, delactosed whey, demineralized whey, hydrolyzed whey, powdered whey, reduced mineral whey, sweet dairy whey, whey, whey protein, whey protein concentrate, whey powder, whey solids

**Yogurt (regular or frozen), yogurt powder**

## MAY CONTAIN MILK

**Natural flavoring**

**Flavoring**

**Caramel flavoring**

**High protein flour**

**Lactic acid (usually not a problem)**

**Lactic acid starter culture**

**"Non-dairy" products may contain casein**

**Rice cheese**

**Soy cheese**

## SHOULD BE SAFE

These milk derivatives should be safe for most individuals with milk allergy, but check with your doctor before using.

**Lactoferrin**

**Tagatose (Naturlose®)**

(Source: KidsWithFoodAllergies/org)

## Foods to Avoid

- Milk in ALL forms (whole, skim, 1%, 2%, evaporated, sweetened condensed, acidophilus, buttermilk, cream, half and half, goat's milk, sheep's milk, milk proteins, milk solids, malted milk, and milk fat)
- Cheese (some forms including cheddar, brie, feta, and camembert have low levels of lactose and may be tolerated by some individuals)
- Butter (including butter fat, butter oil, products with artificial butter flavor and margarine)
- Cream cheese
- Cottage cheese
- Sour cream
- Ice cream, gelato, sherbet
- Cool whip and other whipped toppings
- Processed foods to check:
  - Breakfast cereals
  - Breads, buns, rolls, biscuits, muffins, waffles
  - Crackers, chips, and crisps
  - Cakes, cookies, and other baked desserts
  - Pizza
  - Deli meats

While this isn't an exhaustive list, it provides a good starting point to find out what foods are lactose free. Always remember to read nutrition labels for the ingredients list.



# Lactose-Free Alternatives

Milk: Lactaid lactose-free milk, almond, brown rice, coconut, oat, or soy milk

Cheese: Nutritional yeast for Parmesan sprinkles, sliced tofu for mozzarella or provolone, homemade cashew “cheese” sauces for pasta (see recipes for one idea!)

Butter: dairy-free margarine

Yogurt, Sour Cream, Cream Cheese: soy-based, coconut-based, or pea-based products are available!

Sweetened Condensed and Evaporated Milk: Simmer soy or rice milk until it is reduced by 60% to make evaporated milk. Then to make sweetened condensed milk mix one cup of evaporated milk with 1 ¼ cups of sugar. Heat until dissolved and then let it cool. Can also substitute coconut milk 1:1 for evaporated milk in most recipes!

Buttermilk: Mix one tbsp vinegar into 1 cup of milk alternative (rice or soy) to make a buttermilk substitute.

Light or Heavy Cream: Use light or full fat coconut milk for light and heavy cream.<sup>5</sup>



# Shopping/Brands

Lactaid (milk, chocolate milk, ice cream, cottage cheese, eggnog)

Daiya Dairy Free Cheese

Luna and Larry’s Coconut Bliss Non-Dairy Frozen Dessert

Halo Top Non-Dairy Flavors

Kroger Brand lactose free ice cream

Go Veggie! Cream Cheese Alternative

Tofutti Sour Supreme

Silk Dairy-Free Yogurt Alternative

SO Delicious Dairy Free Coconut Milk Creamer

Earth Balance butter substitute

Reddi Whip Non-Dairy Coconut Milk Whipped Cream



# Apps

## Allergy Reality

Fun and interactive way to for both children and adults to learn about specific food allergies, including dairy free!

Cost: Free

## ShopWell

Allows you to set up a personal profile and alerts for any food allergies. Can also tell you what is contained in the foods you purchase at the grocery store.

Cost: Free

## AllergyEats

Easy way to find restaurants that have dairy free options!

Cost: Free

## FoodMaestro

Barcode scanner to check food labels for dietary profiles

Cost: Free



# Meal Ideas and Blogs

## 1. GoDairyFree.org

They have lots of dairy-free recipes, product reviews, and recommendations!

Guide to Fast Food Restaurants: <https://www.godairyfree.org/eating-out/fast-food-dairy-free-listings>

## 2. Elana's Pantry

Elana has a lot of great recipes, cookbooks, and other information!

## 3. Ditching Dairy

Heidi has great recipes and ideas on how to adapt recipes to be dairy-free!



# Tips

## Have Support

Starting on this journey can be stressful so make sure you have support! Talk with your friends and family, having their support goes a long way towards sticking with a lactose-free diet. Also be sure to talk with your physician about any concerns or questions you have!



## Be Ready

Get the best, up to date resources to help you on this journey. There are so many grocery lists, apps, recipes, and blogs that have great information to help identify lactose-free foods.

## READ LABELS!

There are so many ways companies sneak dairy into food. It is important to make sure you are reading all labels to look for ingredients that indicate lactose is hidden in them!

## Meal Plan

Making changes to your diet seem overwhelming and time consuming. Taking time at the beginning of the week to meal plan and write out a grocery list can save time later in the week and ensure you have all ingredients you need.



## Have Some Alternatives

Transitioning to a lactose-free diet can be easier if you have some alternatives to swap out lactose-containing foods in normal recipes!

Trying stocking your kitchen with some dairy free butter, milk, cheese, and other baking ingredients so you are ready for your next cooking adventure.



## References

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2. Lactose Intolerance. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/lactose-intolerance/symptoms-causes/syc-20374232>. Accessed August 6, 2018.
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4. Lactose-Free Diet. Golisano Children's Hospital Pediatric Nutrition. <https://www.urmc.rochester.edu/childrens-hospital/nutrition/lactose-free.aspx>. Accessed August 6, 2018.
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# The Dairy-Free Shopping List

*Essential Foods for Making Hundreds of Recipes (Gluten-Free Optional)*

## Produce:

- Asparagus
- Avocados
- Bananas
- Carrots
- Celery
- Citrus (oranges, limes, lemons, pineapple)
- Cruciferous (broccoli, kale, bok choy, cabbage)
- Eggplant
- Garlic
- Greens (lettuce, spinach, microgreens)
- Herbs (basil, thyme, rosemary, parsley, cilantro)
- Mushrooms (Portobello, cremini, shiitake)
- Onions (sweet, green, shallots, yellow)
- Peppers (bell, chili)
- Potatoes (sweet, Yukon Gold, Russet, fingerling)
- Seasonal Fruit (apples, pears, mangoes, berries, stone fruit)
- Squash (zucchini, butternut, acorn)
- Tomatoes (cluster, grape, Roma)

## Pantry:

- Applesauce (unsweetened)
- Artichoke Hearts
- Broth (chicken, mushroom, vegetable)
- Canned Beans (chickpea, black, pinto, lentils)
- Canned Pumpkin
- Canned Tomatoes (unsalted - diced, paste)
- Cereal (crispy rice, whole grain flakes)
- Chocolate (dairy-free chips / bars)
- Cocoa Powder (Dutch-processed, natural)
- Condiments (ketchup, mustard, mayo)
- Cornmeal / Polenta (non-GMO)
- Dates
- Dried Fruit (prunes, raisins, cranberries, figs)
- Flour: Buckwheat
- Flour: Chickpea
- Flour: White-Wheat or Gluten-Free Blend
- Freeze-Dried Fruit (berries)
- Coconut Milk (full-fat, lite)
- Grains: Oats
- Grains: Quinoa, Millet or Amaranth
- Grains: Rice (white, brown, Arborio, wild)
- Leaveners (baking soda, baking powder)
- Nutritional Yeast
- Nuts: Almonds
- Nuts: Cashews
- Nuts: Other (pine, walnuts, pecans, hazelnuts)

- Oil: Cocoa Butter
- Oil: Extra-Virgin Coconut
- Oil: Extra-Virgin Olive
- Oil: Rice Bran or Grapeseed
- Oil: Sesame
- Olives (black, green, Kalamata)
- Pasta (durum, soba, rice, corn)
- Peanut, Almond or Sunflower Seed Butter
- Popcorn Kernels (non-GMO)
- Protein Powder (pea, brown rice, chia)
- Sea Salt
- Seeds: Chia
- Seeds: Flax
- Seeds: Sesame
- Seeds: Sunflower or Pumpkin
- Shortening (non-hydrogenated; i.e. Palm)
- Soy Sauce (non-GMO) or Tamari (for gluten-free)
- Spices (paprika, turmeric, oregano, cinnamon, etc)
- Starch: Corn (non-GMO), Tapioca and/or Potato
- Sun-Dried Tomatoes
- Sweetener: Granulated Sugar (coconut or powdered, cane, brown)
- Sweetener: Honey or Agave Nectar
- Sweetener: Maple Syrup
- Sweetener: Molasses (blackstrap)
- Tahini
- Tortillas (flour, corn, gluten-free)
- Unsweetened Shredded Coconut
- Vanilla Extract
- Vinegar (apple cider, balsamic, rice)

## Chilled:

- Buttery Spread
- Dairy-Free Milk Beverage (unsweetened)
- Miso (non-GMO)
- Orange Juice
- Organic Tempeh
- Organic Tofu

## Non-Vegan Proteins: (most cost-effective)

- Canned Fish (salmon, sardines)
- Chicken
- Eggs (yes, they are dairy-free!)
- Grass-Fed Ground Beef
- Ground Turkey
- Nitrate-Free Lean Bacon
- Wild Baby Shrimp
- Wild Fish or Sustainably Farmed (in season)

Dairy Free RECIPE

# Blueberry Crisp

Ready in **20-40 minutes**

Serves **4**



## Ingredients

For the Crisp:

- 1 tbsp dairy free butter substitute
- 1 pint blueberries, washed and drained
- $\frac{3}{4}$  cup sugar
- 1 tbsp flour
- $\frac{3}{4}$  tsp cinnamon

For the Topping:

- 1  $\frac{1}{2}$  cups flour
- $\frac{3}{4}$  cup brown sugar
- 1 tsp salt
- $\frac{1}{2}$  cup dairy free butter substitute

## Preparation

1. Heat Oven to 350 degrees.
2. Mix sugar, flour, dairy free butter substitute, cinnamon, and blueberries together.
3. Spread across a greased 8x8 casserole dish.
4. Mix together flour, brown sugar, salt, and dairy free butter substitute until resembles crumbs. Sprinkle crumbs over top of blueberries.
5. Bake 30 to 40 minutes until blueberries are bubbly and crust is golden brown.

## Tips

Top with dairy free coconut whipped topping or dairy free ice cream!

Recipe from Simply Southern Mom



Dairy Free RECIPE

# Chicken Pot Pie



Ready in **20-40 minutes**

Serves **4**

## Ingredients

- 2 carrots diced
- 1 parsnip diced
- 1 onion diced
- 2 cloves minced garlic
- 2 tbsp thyme
- 1 tbsp sage
- 1 tsp poultry seasoning
- ½ tsp salt
- ½ tsp pepper
- 2 tbsp white whole wheat flour
- 32 oz low sodium chicken broth
- 2 cups frozen peas
- 1 rotisserie chicken shredded
- 8 sheets phyllo dough thawed
- 2 tbsp olive oil

## Preparation

6. Heat Oven to 350 degrees.
7. Saute carrots, parsnip, onions, and garlic in a large saucepan over medium heat. Stir frequently until softened, about 5-7 minutes.
8. Add thyme, sage, poultry seasoning, salt, and pepper, and flour.
9. Pour in chicken broth and stir.
10. Bring to a boil and stir until thickened then reduce heat to low and simmer for 10 minutes.
11. Stir in green peas and shredded chicken.
12. Pour into a large greased baking dish.
13. One at a time, paint phyllo dough with olive oil. After each layer is brushed, add on top of baking dish to form a crust.
14. Poke 2-3 slits in the phyllo crust.
15. Bake for 25-30 minutes or until phyllo is browned.

## Tips

Serve with a fresh salad or steamed veggies for a balanced meal.

Recipe from The Lemon Bowl

Dairy Free RECIPE

# Southern Cornbread



Ready in **20-40 minutes**

Serves **4**

## Ingredients

- 2 cups stone-ground cornmeal
- 1 tsp baking powder
- 1 tsp baking soda
- 1 tsp salt
- 2 large eggs
- 1 14.5 oz light coconut milk
- 2 tbsp lime juice
- ¼ cup honey
- 2 tbsp coconut oil

## Preparation

1. Preheat oven to 400 degrees.
2. In a large bowl, mix the cornmeal, baking powder, baking soda, and salt.
3. In a medium bowl, whisk the eggs until foamy. Add the coconut milk, lime juice, and honey.
4. Make a well in the dry ingredients, add the wet ingredients, and mix until just blended.
5. Meanwhile, place the coconut oil in a 10-inch cast iron skillet and heat in over for 5 minutes.
6. Remove skillet from oven and pour in batter.
7. Bake for 18 minutes or until the top is golden and center is cooked through.

## Tips

Serve hot or at room temperature with dairy free butter substitute, honey, or jam.

Recipe from Fountain Avenue Kitchen

Dairy Free RECIPE

# Cheese Sauce with Baked Potato Wedges



Ready in **45 minutes**

Serves **3**

## Ingredients

For the Baked Potato Wedges:

- 1 pound baby potatoes
- ½ tsp olive oil
- ¼ tsp salt
- ⅛ tsp black pepper

For the “Cheese” Sauce:

- ½ cup peeled and chopped carrots
- ½ cup chopped yellow potato
- ½ cup raw unsalted cashews
- 1 cup Silk Unsweetened Cashew Milk Beverage
- 2-3 tbsp nutritional yeast
- 1 tbsp lemon juice
- 1 tsp salt
- Pinch cayenne

## Preparation

Baked Potato Wedges:

1. Preheat oven to 400 degrees
2. Cut baby potatoes in half vertically and cut each half into thirds to get 6 long wedges per baby potato.
3. Place the wedges on a baking sheet and drizzle with olive oil. Sprinkle with salt and pepper, then toss to coat.
4. Spread the wedges out on the baking sheet, turn them all upright so the skin side is down. Bake for 30 to 40 minutes or until lightly browned.

“Cheese” Sauce:

1. While the potatoes bake, steam or boil the carrots and potatoes until tender, about 20 minutes.
2. Pulse the cashews in a food processor until completely ground to make a “flour.”
3. Add the cooked vegetables, half of the cashew milk, ground cashews, nutritional yeast, lemon juice, salt, and cayenne to food processor. Blend until smooth. Add remaining milk and blend to combine.
4. Pour cheesy mixture into a medium pan and bring it to a bubble over medium heat. Reduce the heat to medium-low and cook for about 5 minutes, whisking often, or until it thickens.
5. Serve with baked potato wedges

## Tips

Great for parties!

Recipe from GoDairyFree

Dairy Free RECIPE

# Roasted Red Pepper Pasta



Ready in **25 minutes**

Serves **6**

## Ingredients

- 12-16 ounces dry pasta
- 2 tbsp olive oil
- 1 medium yellow onion, chopped
- 2 minced garlic cloves
- ½ tsp crushed red pepper
- ¼ cup raw cashews
- 2 12 ounce jars of roasted red bell peppers, drained
- ¾ cup dairy free half and half alternative
- 1 tsp lemon juice
- 1 tsp salt
- ⅛ tsp black pepper

## Preparation

1. Cook pasta according to package directions.
2. Heat the oil in a large skillet over medium heat. Add the onion and saute for 4 minutes.
3. Reduce heat to medium-low. Add the garlic and crushed red pepper and saute for 1 minute. Remove the skillet from the heat.
4. Grind the cashews in a spice grinder or food processor until powdered.
5. Place the ground cashews, drained roasted peppers, dairy free half & half, lemon juice, and salt in blender. Puree until very smooth, about 1 minute.
6. Pour the sauce back into the skillet and cook over medium-low heat, whisking often, for about 5-10 minutes or until lightly thickened.
7. Toss sauce with cooked pasta to serve.

## Tips

Serve with steamed or roasted vegetables for a balanced meal!

Recipe from GoDairyFree



Dairy Free RECIPE

# Chocolate Chip Cookies



Ready in **20 minutes**

Serves **24**

## Ingredients

- ½ cup dairy free or lactose free butter
- 6 tbsp brown sugar
- 6 tbsp white sugar
- ½ tsp vanilla
- 1 large egg
- 1 ⅛ cup flour
- ½ tsp baking soda
- ¼ tsp salt
- ½ cup chocolate chips

## Preparation

1. Preheat oven to 350 degrees. Line two baking sheets with parchment paper.
2. In a large bowl, cream dairy free/lactose free butter and sugars.
3. Add in egg and vanilla and mix well.
4. Add in flour, baking soda, and salt. Mix together until combined.
5. Add in chocolate chips and give it one final stir!
6. Drop spoonfuls onto pans and bake for 8-10 minutes or until edges are lightly golden brown.

## Tips

Enjoy with a cold glass of lactose free milk!

Recipe from Ditching Dairy