



Non-Dairy Milks

Health Benefits of Non-dairy Milks

Dairy-alternative milks have less fat and fewer Calories than animal dairy and contain no cholesterol, lowering risk for heart disease. Products can vary widely in nutrients and most are enriched with calcium, and vitamins A & D. Choose unsweetened varieties.

Potential benefits of using non-dairy milks:

- Reduce inflammation, lower insulin levels
- Non-estrogenic, reducing risk for estrogen-sensitive cancers
- Less likely to be allergenic, contain no lactose, easier to digest
- Do not contain hormones or antibiotics. Buy organic when possible
- Grain milks contain vitamin E and polyphenol antioxidants
- Soy milk contains isoflavones, antioxidants that fight cancer
- Soy, oat and hemp milks have more protein compared to rice, almond and coconut
- Read ingredient labels. Select brands that do not contain carrageenan (thickener) or added sweeteners
- Can be made at home with water and a high-speed blender
- Can be used 1:1 in recipes

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Health Benefits Non-Dairy Milks



Non-dairy milks (NDMs) can provide healthy alternatives to cow's dairy. Today's market is bursting with new plant-based dairy alternatives. Sales have grown 61% from 2012-2017 with an annual growth rate starting in 2018 at 11.3% [1].

The variety available to consumers includes milks derived from grains (oat, amaranth, rice), nuts (almond, cashew, hazelnut), seeds (hemp, sunflower, pumpkin), and legumes (soybeans, peas). The nutrition profile of each of these products varies and choosing among them is dependent on how they are likely to be used.

For example, if you are looking for a protein source, soy milk has a similar protein content to dairy milk. For a flavorful addition for your smoothies or baked goods, choose almond or coconut. If you like cream in your coffee, try oat milk since it is naturally thicker and sweeter. If you are on a special elimination diet, rice milk is the least likely to aggravate allergies.

TYPES OF NON-DAIRY MILKS

Legume or Bean Milks

- Soy milk has been on the market the longest. It contains 7 gm protein per 1 cup, comparable to cow's milk 8 gm. Also contains magnesium, iron and phytoestrogens. Soy milk is associated with lowering blood pressure and LDL cholesterol and decreased risk for heart disease [2] and cancer[3].
- Pea milk boasts the same 8 gm protein and 50% more calcium than cow's. This milk may taste like peas, great for making creamy soups.

Nut Milks

- Generally lower in Calories, not suitable for those with nut allergies.
- Almond milk is low in protein and carbohydrates but high in flavor. Almonds contain more calcium than other nuts.

Grain Milks

- Rice milk, the most commonly used, is allergen-friendly but has no protein or fiber. It is often found sweetened.
- Oat milk is high in fiber and antioxidants with a slightly sweet taste. It is the easiest milk to make at home.

Seed Milks

- Hemp milk is a good source of protein and contains omega 3 fats, antioxidants and fiber. It is easily digestible but may be expensive compared to other varieties.
- Coconut milk contains magnesium, iron and antioxidants but can be high in fat. Seek out low-fat versions. It has a mild coconut flavor and works well in baking.

BUYING NON-DAIRY MILKS

Most milk alternatives are found in 2 different sections of the grocery store. Those stored in shelf-stable waxed boxes can be found in the grocery aisle, often by dry cereals. You may also find jugs or pourable boxes in the refrigerated section.

Many of the milks, especially flavored milks like vanilla or chocolate, have added sweeteners. To meet the US Dietary Guidelines recommendations to reduce added sugars, seek out unsweetened varieties of non-dairy milks.

Many non-dairy milks can be made at home with just the main ingredient (nuts, seeds, grains, legumes) and water. Although you do require a high-speed blender, there are advantages to making your own non-dairy milk at home:

- Money-saving, you pay only for the main ingredient.
- You control added ingredients like sweeteners and flavorings.
- Homemade versions will not contain added thickeners, gums or other chemicals.
- Most milks require straining out the fibrous leftovers from the nuts or grains. Retain this fiber which can be added to porridge, smoothies or baked goods.



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PLANT-BASED SOURCES OF CALCIUM

Cow's milk and dairy products are the most common sources of calcium. Read labels of non-dairy milks carefully to ensure the product is enriched with calcium and vitamin D. You can also derive calcium from other plant foods including:

- Broccoli and leafy green vegetables
- Figs, berries, oranges, fortified orange juice
- Almonds, Brazil nuts
- Tofu and dried beans, especially white beans
- Pumpkin, poppy, sesame and chia seeds
- Blackstrap molasses (1 Tbsp has 100 mg)
- Ancient grains like amaranth, teff, sorghum and millet

VITAMIN D

The best source for vitamin D is direct sunlight on your skin for 10-20 min/day. RDA is 600-800 IUs/day. If you reside above the 37th parallel of the US, or rarely get direct sunlight, supplementing with 1,000-5,000 IUs/ day may be advisable. Have your vitamin D levels checked by your primary care doctor before supplementing above the RDA.

Milk (1 cup)	Cal	Fat	Pro	Fiber
Cow (whole)	150	8	8	0
Soy*	80	4	7	2
Pea*	105	5	8	1
Oat*	120	2	3	2
Rice*	120	2.5	1	0
Quinoa*	70	1	2	0
Cashew*	26	2	0	0
Almond*	40	3	2	1
Hazelnut*	90	9	2	0
Coconut*	50	5	0	0
Hemp*	70	6	2	0

*unsweetened

Homemade Non-Dairy Milks

Almond (Ohsheglows.com)

Ingredients:

- 1 c raw almonds
- 3/5 c water
- 2-4 pitted Medjool dates (optional)
- 1/2 tsp vanilla extract (optional)
- 1/4 tsp cinnamon (optional)

Directions:

1. Cover almonds with water and soak overnight. Rinse and drain.
2. Put all ingredients in a blender at high speed for 1 minute.
3. Place nut milk bag or cheesecloth over blender and drain milk into pitcher. Squeeze milk from bag or cheesecloth. Save the fiber for muffins or smoothies.
4. Store in glass jar in refrigerator. Shake before using.

Oat (minimalistbaker.com)

Ingredients:

- 1 c rolled oats (Original)
- 4 c water
- Salt, cocoa powder or coffee can be optional ingredients

Directions:

1. Soaking oats in water 15-20 minutes is not required but may provide a smoother product. Drain and rinse, starting with fresh water.
2. Blend in high-speed blender 30-60 seconds.
3. Strain through cheesecloth if desired but save pulp for use in muffins or smoothies.
4. You can choose not to strain. Retaining pulp is optimal since it contains fiber and nutrients. Re-blend each time before using.

REFERENCES

1. Kateman, B. 2019. Non-dairy milk alternatives are experiencing a 'holy-cow!' moment. Forbes.
2. He, J., Wofford, M. Reynolds, K., Chen, J., Chen, C., Myers, L. Effect of dietary protein supplementation on blood pressure: a randomized controlled trial. Circulation. 124:589-595.
3. Cancer.org