

Plant-based Alternatives to Dairy!

Hi Kids! You may have heard that we are talking about “*plant-based foods*” as part of our program. Today we are going to share information about **plant-based alternatives to dairy** (milk, cheese, yogurt, etc.). But first, let’s review!

As a reminder, *plant-based eating*, or eating *plant-based foods*, means that we eat foods that *grow out of the ground*, instead of foods that walk on the ground or swim in the water, which are called *animal-based foods*! Plant-based foods include *unprocessed (as much as possible) fruits, vegetables, wholegrains, nuts, and legumes (beans, peas, etc.)!*

Most dairy products (such as milk, cheese, and yogurt) that you are familiar with likely come from cows. But did you know that around the world, some milk used for drinking, and making cheese and other dairy products for human consumption, comes from buffalos, goats, sheep, camels, donkeys, horses, reindeers, and yaks!¹

Obviously, all dairy products made from these animals are in the category of foods called “animal-based foods.”

An alternative to these animal-based dairy products are **non-dairy versions** of milks, yogurts, cheeses, butters, and other items made from **plants** – such as legumes (soybeans), nuts (almonds, hazelnuts, cashews), grains (rice), and/or fruits (coconuts). *Can you name the plants used in the milks in the picture to the right?*

Why would people drink plant-based, non-dairy milk, or eat non-dairy items like yogurt or cheese? There are a number of reasons:² →



Photo from: <https://grist.org/opinion/dairy-industry-has-a-cow-over-plant-based-milks/>

- Milk allergies: Some people are allergic to cow’s milk which causes them to have rashes, vomiting, diarrhea, and/or severe anaphylaxis (which means a severe reaction that requires a shot and/or a doctor’s attention).
- Lactose intolerance: Lactose is the sugar that is found in cow’s milk. Some people are “intolerant” to lactose, which means that they feel sick when they drink/eat it, and may get diarrhea, gas and/or bloating. Research shows about an estimated 75% of the world’s population is intolerant to lactose.³
- Dietary restrictions: Some people choose not to eat or drink animal-based products for ethical or humane reasons. For example, some vegans exclude all products that come from animals, including cow’s milk, eggs, etc., because they don’t care for how animals are treated when they are used for food.
- Potential health risks: Some people choose to avoid cow’s milk due to concerns over potential contaminants, including antibiotics, pesticides, and hormones. Others avoid it because it may cause inflammation which may lead to belly aches, mucus production, and worsening allergy symptoms.⁴ Others avoid it to prevent or treat acne – yes, studies in the US, Italy, Malaysia, and elsewhere found an association between dairy consumption and acne!⁵

Have you ever tried any *plant-based milks, yogurts, or similar foods*? They are delicious and typically have **fewer calories**, and **less fat**, while still having **vital nutrients** naturally, and/or added. Just like some orange juices have calcium added to help you get the amount you need each day, calcium, B12, and other nutrients are typically added to store-bought non-dairy milks. One thing to be on the lookout for is *added sugar*. Some non-dairy milks, just like chocolate dairy milk, have added sugar that adds calories!

¹<https://en.wikipedia.org/wiki/Milk>

²Adapted from: <https://www.healthline.com/nutrition/best-milk-substitutes#section1>

³<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4586535/>

⁴<https://www.drweil.com/diet-nutrition/nutrition/why-not-drink-milk/>

⁵<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4106357/>

Activity 1: Tasting Non-dairy Milks, Yogurts, Cheeses, and/or Other Items



Planning Note- Staff, teachers, and/or parents leading this event: Bring **3-4** (or more!) plant-based non-dairy items for the children to try,¹ *remember handwashing is important before any consumption of foods/beverages, even if using cups!* Also, try to bring copies of nutrition facts/labels from animal-based items similar to the plant-based items you are sharing during this tasting.

For kids in grades 3 and up (and adults!): In column 1, write down the type of plant (almond, soy, etc.) that was used to make the non-dairy item you are tasting. In column 2, write down the type of non-dairy item you are tasting (milk, yogurt, butter, cheese, etc.). Then, in Column 3, write down what is interesting about the taste you tried, and describe it (new to me, sweet, salty, smooth, etc.).

Reflect on each taste, and discuss with the group:

- Was the taste what you expected?
- Could you imagine having each of the items as part of your daily meals? If so, which? (breakfast with cereal, yogurt as a snack, etc.)
- Look at the nutrition label/facts on each plant-based item, talk about the calories, fats, and nutrients. If available, compare to similar animal-based dairy product labels.

Column 1 Type of plant used to create item	Column 2: Type of item	Column 3: What was interesting about the taste?!

Now that you’ve tasted and talked about **delicious and nutritious plant-based milks and other items**, we challenge you, and your family and friends, to add some of these into your meals at home!

Share your experiences using #CommittoHealth and by tagging NRPA!

@National Recreation and Park Association (Facebook), @NRPA_news (Twitter) and @nrpa (Instagram)

¹Refer to “Ideas for Plant-based Dairy Alternatives” sheet that is part of this packet for ideas on what to bring to the tasting.

Activity 2a: Plant-based Milk – Soy!



For kids in grades PreK through 2: Color the plant-based soy milk below (soy milk is slightly beige/tan in color – staff, think about bringing some soy milk for the children to try!), which can be used as a drink or in cereal, or in recipes instead of cow's milk! And, although there is a straw in the picture below, please consider **not using straws!** Creating them uses a lot of resources we could be conserving, and they fill landfills with nonbiodegradable plastic, and sometimes even hurt our sea animals! Draw a big red "X" over the straw if you will agree not to use straws for a week, or longer!

Have you ever had soy milk, or any other plant-based, non-cow milk like almond milk. If not, try it someday!



Activity 2b: Plant-based Milk – Almond!



For kids in grades PreK through 2: Color the plant-based almond milk below (almond milk is slightly beige in color – staff, think about bringing almond milk for the children to try!), which can be used as a drink or in cereal, or in recipes, instead of cow’s milk! Create a colorful design for the plant-based milk carton!

Have you ever have had almond milk, or any other plant-based, non-cow milk like almond milk? If not, try it someday!



PLANT-BASED FOODS GUIDE

Ideas for Plant-based Dairy Alternatives

Ok, so you've learned a lot about *plant-based dairy products*! Now it's time to see the many options available to you that you can consume in place of animal-based milk products! Check out the images below and consider making your own - recipes are provided on the next page!

*As a reminder, plant-based milks, yogurts, or similar foods are delicious and typically have **fewer calories**, and **less fat**, while still having **vital nutrients** naturally, and/or added. Just like some orange juices have calcium added to help you get the amount you need each day, calcium, B12, and other nutrients are typically added to store-bought non-dairy milks. One thing to be on the lookout for is added sugar. Some non-dairy milks, just like chocolate dairy milk, have added sugar that adds calories – so search out those with the least amount of added sugar!*

DELICIOUS NON-DAIRY MILK ALTERNATIVES			
SOYA MILK	RICE MILK	HEMP MILK	OAT MILK
<p>Rich and creamy. Great all rounder, ideal for drinking straight, cooking, baking etc. Can curdle in hot drinks. Always choose organic soya milk.</p>	<p>Has a thin, quite watery consistency. Light and naturally sweet, it's great on cereal and in cooking but a little too watery for hot drinks.</p>	<p>Creamy, with a stronger robust flavour than other non-dairy milks so not ideal in hot drinks. Good for cooking, especially in savoury dishes.</p>	<p>Creamy and naturally sweet. Great in cooking but a little heavy for baking. Easy to make at home by simmering oats and water, cooling and straining.</p>
ALMOND MILK	HAZELNUT MILK	COCONUT MILK	CASHEW MILK
<p>Creamy and slightly nutty. Great in tea and coffee and in cooking and baking. Easy to make at home by soaking nuts overnight, blending with water and straining. Can be sweetened.</p>	<p>Light with a rich nutty flavour. Great in drinks and light desserts but not really suitable for cooking and baking. Easy to make at home by soaking nuts overnight, blending with water and straining.</p>	<p>Smooth and fresh and not highly flavoured. Comparable to semi-skimmed dairy milk in consistency. Ideal for all uses, especially good for on cereal and in hot drinks and smoothies.</p>	<p>Smooth, creamy, slightly nutty and sweet. Great for cooking, desserts and for making cream. Easy to make at home by soaking nuts overnight, blending with water and straining.</p>

Examples of Non-dairy Yogurt



Image: <http://kblog.lunchboxbunch.com/2015/11/vegan-yogurt-reviews.html>

Examples of Non-dairy Butter Spreads and Condiments



Image: <http://www.onegreenplanet.org/news/earth-balance-vegan-butter-commits-to-sustainable-palm-oil-but-is-it-enough/>

Examples of Non-dairy Ice Cream



Image: <https://urbantastebud.com/vegan-ice-cream-list/>

Plant-based, Non-dairy Recipes

Raw Cashew Milk¹

(Serves 2)

- 1 cup raw unsalted cashews (found in bulk section of grocery)
 - 3 cups water
1. Soak cashews in water overnight.
 2. Drain the cashews and blend them with the water until well blended and almost smooth.
 3. Strain the mixture using a cheesecloth or strainer (or napkin).
 4. Milk can be stored for 2-3 days.



Easy Peasy Banana Milk²

- 2 bananas
- 4 cups water
- 4 dates
- 1 tsp vanilla extract
- 1 cup ice

Blend together all ingredients in blender till smooth.

PARENTS: Blenders are our best friends when we include plant-based snacks, beverages, and meals in our dietary plans. Yes, some are very expensive, but some affordable “bullet” blenders can do the job of blending the nutritious nuts and fruits included in these recipes. Look for affordable “bullet” blender brands such as Oster, Hamilton Beach, KitchenSmith, and Bella for some that are *less than \$20!*

Plant-based Pasta Carbonara³

- 18 ounces pasta of your choice
 - 10 ounces firm tofu
 - 1/2 cup unsweetened plant-based milk (any kind, almond works well)
 - 1/2 cup vegan parmesan cheese or nutritional yeast (8 tbsp)
 - 1/4 cup nutritional yeast (4 tbsp)
 - 2 tbsp lemon juice
 - 1 tbsp tahini (or extra virgin olive oil)
 - 1 tsp turmeric powder (optional)
 - 1/2 tsp salt
 - 1/8 tsp ground black pepper
 - Fresh parsley (optional)
1. Cook the pasta according to package directions.
 2. Place the rest of the ingredients (except the parsley) in a blender and blend until smooth.
 3. When the pasta is ready, strain it and place it in a frying pan or in the same pot you’ve cooked the pasta, add the sauce and cook over medium-high heat for about 2 to 3 minutes, stirring constantly, to thicken.
 4. Serve with fresh parsley, if using, and more pepper if desired.
 5. Store the pasta carbonara in the fridge in a sealed container for up to 4 days.



¹<https://simpleveganblog.com/2-ingredient-raw-cashew-milk/>

²<https://simpleveganblog.com/easy-peasy-banana-milk-vegan-gf/>

³Adapted from: <https://simpleveganblog.com/vegan-pasta-carbonara/print/10449/>;

photo from: <http://www.colourfulpalate.com/2011/05/19/vegan-cheesy-pasta/>