

Ask the Expert: What are Carotenoids?

Written by Yaxuan (Elaine) Wang, Purdue University Nutrition and Dietetics, Fitness and Health '27

Have you ever wondered why foods like carrots and sweet potatoes are so brightly colored? These foods contain “carotenoids”, which have a natural coloring that gives them their orange hue, there are other colors that carotenoids give to foods like yellow and red. Some green vegetables and fruits also contain carotenoids. In these foods, the orange color is hidden by darker green pigments. Carotenoids are a form of vitamin A. Our bodies can use vitamin A in important ways to keep us healthy. For example, foods high in carotenoids help support eye health and vision. Our ability to see in dark places depends on having enough vitamin A!



Carotenoids and vitamin A are helpful in keeping our immune system strong and working properly for a long time. Some foods that are high in carotenoids include carrots, sweet potatoes, butternut squash, cantaloupe, red peppers, and other red and orange vegetables. Try to eat at least five or six cups of red and orange vegetables every week, or one cup a day to get all of the health benefits that they provide.

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Food Safety: Avoiding Botulism

Written by Emma Araya, Purdue University Nutrition and Dietetics '26

Have you ever wondered what to do with dented cans that you find in the back of your pantry? It might not be a good idea eat the food inside, even if they are not expired. Dented cans have a risk of containing the bacteria *Clostridium botulinum* that can cause Botulism. Botulism is a serious sickness that attacks the nerves in the body and can cause difficulty breathing, muscle paralysis, and sometimes even death. The bacteria tend to grow in home-canned, preserved, and fermented foods as well as some dented cans. Follow these tips to avoid foodborne illness caused by botulism:

- Check the condition of store-bought cans. If the side seams and end seams are dented, bulging, or leaking, it may be unsafe to eat.
- Foods that are stored in oil like vegetables and herbs should be kept refrigerated.
- Baked potatoes should be wrapped in aluminum foil until served or refrigerated.
- Home-canned foods of low acidity, like beans, should be heated to 176F for 30 minutes before being eaten.



Sources: <https://www.cdc.gov/botulism/about/index.html> <https://www.larimer.org/sites/default/files/uploads/2017/lcdhe-dented-cans.pdf> <https://www.canada.ca/en/public-health/services/diseases/botulism/prevention.html> <https://www.nifa.usda.gov/sites/default/files/resource/Preventing-Foodborne-Illness-Clostridium-botulinum.pdf>

Oatmeal Pecan Waffles

Directions

1. Preheat waffle iron.
2. In a large bowl, combine flour, oats, baking powder, sugar, and pecans.
3. In a separate bowl, mix together egg yolks, milk, and vegetable oil.
4. To the dry ingredient bowl, add the liquid ingredients. Mix well until it is a bit lumpy.
5. In another bowl, beat egg whites until they form medium peaks. Fold into batter.
6. Pour mixture into heated waffle iron until it signals to stop or stops steaming.
7. Add toppings like pecans or walnuts as desired. Enjoy!

Ingredients (4 servings)

- 1 cup any flour (all-purpose, whole-wheat)*
- 1/2 cup oats, quick-cooking*
- 2 tsp baking powder
- 1 tsp sugar
- 1/4 cup pecans or walnuts*
- 2 eggs*
- 1 1/2 cup any milk, preferably skim or fat-free*
- 1 tbsp vegetable oil*



Source: <https://www.nutrition.gov/recipes/oatmeal-pecan-waffles>

***foods included in the
TEFAP (The Emergency Food
Assistance Program)**

Eating Right: What is Seasonal Produce?

Written by Emma Araya, Purdue University Nutrition and Dietetics '26

Have you ever wondered why certain fruits and vegetables are on sale at the grocery store? Many times, it is because they are in season. Seasonal produce are fruits and vegetables that are at picked at their peak harvest. In-season fruits and vegetables are available in large amounts so that they can be sold at lower prices, or be on “sale”. Buying fruits and vegetables by when they are in season can not only be more affordable but also can mean those foods taste better since they are sold at their peak ripeness. Follow these tips to learn how to shop for produce by season:



- Check the sale produce at the front of the grocery store. Usually this produce is what is in season.

- Buy frozen and canned fruits and vegetables. Produce in their frozen and canned forms still have the same nutritional benefits as fresh forms and are usually packaged during their peak ripeness and season. Try to buy low or no-sodium versions, and fruit canned in light syrup or no-sugar added for health benefits.



You can use this link from the Indiana Farmers Market to check what produce is in season in Indiana: <https://infmtcp.org/food-access/seasonal-guides/>



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Send comments and/or change of address to:
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Purdue University
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Website: www.purdue.edu/indianasefrnetwork/

This newsletter is edited by Emma Araya and Heather A. Eicher-Miller, PhD and is created by the Eicher-Miller Lab in the Department of Nutrition Science at Purdue University. This institution is an equal opportunity provider.

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IN THE NEWS

In The News: April 4th is Vitamin C Month!

Written by Pavitra Surma, Purdue University Pre-Veterinary Student '28

On April 4th, we commemorated Vitamin C Day! From our immune system to our skin, vitamin C is very important for our bodies.

One of the ways vitamin C helps to our overall health is through its role in protecting our body against infection and disease. Vitamin C is an antioxidant, which is a nutrient that protects our cells from damage. Vitamin C makes and helps keep our white blood cells healthy, which defend our body against infection and disease. Vitamin C also helps our skin health. It can brighten dull skin and sooth inflammation through its role as an antioxidant. Some tasty ways you can incorporate vitamin C into your diet are by eating a variety of fruits and vegetables, like citrus fruit. Eating mandarin oranges, adding lemon to your salad, or eating bell peppers as a snack are great ways to incorporate more vitamin C in your diet!



Sources: <https://www.mayoclinic.org/drugs-supplements-vitamin-c/art-20363932>