

Ask The Expert: What are Probiotics and Prebiotics?

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

Have you ever wondered why yogurt is called “good for your gut”? One reason is because it contains probiotics. Probiotics are live microorganisms, such as helpful bacteria and yeasts, that help to keep us healthy when we consume enough of them. These probiotics work in different ways to help us. Both the amount of probiotics we eat and the foods that we eat that contain them can impact us. Yogurt is one common source of probiotics, while fermented foods such as kimchi, miso, kombucha, and some cheeses can also contain probiotics.

Prebiotics sounds like probiotics, but this word means something different. Instead of being live microorganisms, prebiotics are parts of food that feed the helpful microorganisms already living in our gut. Prebiotics are usually fibers that our bodies cannot fully digest. Foods such as onions, garlic, bananas, and whole grains contain prebiotic fibers. In this way, probiotics are helpful microorganisms, and prebiotics are the food that helps them grow.

Foods we may already eat every day can give us probiotics or prebiotics. So keeping your gut healthy with prebiotics or probiotics does not need to be expensive or complicated. Try including more fermented foods and fruits and vegetables in your daily diet to help keep your gut healthy.



Sources:
[https://
www.nccih.nih.gov/
health/probiotics-
usefulness-and-
safety](https://www.nccih.nih.gov/health/probiotics-usefulness-and-safety)
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In This Issue:

Ask The Expert: What are Prebiotics and Probiotics?	1
Food Safety: Why Can Raw Flour and Dough Make you Sick?	2
Eating Right: Canned Pumpkin: Its Not Just for Pie!	3
In The News: National Mushroom Month	4

Food Safety:

Why Can Raw Flour & Dough Make You Sick?

Written by Lexi Rosenblum, Purdue University, Psychology & Sociology, '28

Many people know that raw meats and eggs can make you sick, but flour can also carry harmful germs. Most flour counts as raw food because it has not been treated to kill germs before it reaches your kitchen!

Wheat can pick up germs while it is growing in the field or while flour is being made. Bleaching and grinding the wheat to make flour also does not kill those germs. Some of the germs or bacteria that raw flour could contain are E. coli or Salmonella, which can make you very sick. You can bake or cook flour or dough to help you kill these germs and make it safe to eat. Do not taste foods made with raw flour before they are fully cooked. This includes cookie dough, brownie or cake batter, pie crust dough, pizza dough, biscuit dough, tortilla dough, and pancake batter.

To handle flour and dough safely, follow these steps:

- Follow the recipe or package directions exactly
- Wash your hands
- Clean bowls, utensils, counters, and other surfaces with hot soapy water after cooking or baking
- Refrigerate store bought dough



Sources:

<https://www.fda.gov/food/buy-store-serve-safe-food/food-safety-your-kitchen>
<https://www.fsis.usda.gov/news-events/events-meetings/food-safety-education-month-preventing-cross-contamination>
<https://health.clevelandclinic.org/cross-contamination-risks>

Black Bean Quesadilla

Directions:

1. Using a small-hole strainer, drain liquid from salsa; discard liquid.
2. Transfer leftover tomato mixture to a medium bowl.
3. Mix in black beans, cheese, and cilantro until combined.
4. Divide black bean mixture evenly over half of each tortilla (about 1/2 cup each).
5. Fold tortillas in half.
6. Heat large griddle or skillet over medium-high heat.
7. Brush with oil.
8. Place filled tortillas on a griddle.
9. Cook, carefully flipping once, until tortillas are gold brown and crisp and cheese filling melts, about 5 minutes.
10. Cut quesadillas into wedges.

Sources:

[hwww.nutrition.gov/recipes/black-bean-quesadilla](https://www.nutrition.gov/recipes/black-bean-quesadilla)

Ingredients

- $\frac{3}{4}$ cup salsa (chunky or pico de gallo)
- 1 can black beans (15.5 oz, drained and rinsed)
- 2 cups cheese (Colby, Monterey Jack, reduced-fat, shredded)
- 2 tablespoons cilantro (fresh, finely chopped)
- 4 large tortillas (flour)
- $\frac{1}{2}$ teaspoon olive oil

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



Eating Right: Canned Pumpkin: It's Not Just for Pie!

Written by Pavitra Surma, Biomedical Health Sciences, '28

As autumn gets closer, you will likely see carved pumpkins, pumpkin spice lattes, and pumpkin pie every time you enter the store. Canned pumpkin is a more shelf stable option compared with fresh pumpkin that has many of the same benefits. A one half cup serving of canned pumpkin has only around 30 calories but adds over 200% of the vitamin A we need, about 10% of daily vitamin C and 5% of daily calcium.



Through your local food pantry or grocery store, you might even be able to find a "no salt" version which would help lower sodium in your diet. Unlike pie filling, which is already seasoned and sweetened, canned pumpkin has a lot more flexibility in what you can make with it. If you are making something savory, you can pair your soup or curry with a hint of pumpkin for a creamy, rich texture. For a sweeter recipe, try baking with canned pumpkin. You can make muffins, cookies, or add it to your smoothie or oatmeal! The options are truly endless, and using canned pumpkin will help you meet your nutrition needs.



Sources:

<https://extension.illinois.edu/blogs/simple-nutritious-quick-and-delicious/2023-10-12-make-most-canned-pumpkin>

<https://www.fna.usda.gov/tefap/foods-available>

<https://extension.purdue.edu/foodlink/food.php?food=pumpkin>



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This newsletter is edited by Lexi Rosenblum and

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created by the Eicher-Miller Lab in

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at Purdue University. This institution

is an equal opportunity provider

In The News:

September is National Mushroom Month!

Written by Nadia Brumbaugh, Purdue University, Biology, '28

September is national mushroom month, a great time to enjoy mushrooms and the many vitamins and minerals they can add to our diets. We eat mushrooms as vegetables but they are different from most vegetables because they are not plants but belong to a group called fungi. They are grown above ground on soil. There are many different types of mushrooms.



Sources:
<https://www.usda.gov/about-usda/news/blog>
<https://extension.purdue.edu/foodlink/food.php?food=mushroom>

Some types are buttons, portabello, and shiitake. Adding mushrooms to your diet is very simple; you can just sauté them on a hot pan then mix them right into your main dishes like pastas, pizzas, and salads. Try eating mushrooms this month to celebrate National Mushroom month!