Nutrition trends: resistant starch

Resistant starches have been a trending topic in the nutrition world for their potential health benefits, including blood glucose management and gut health. Guidelines from the Institute of Medicine recommend 45–65% of daily calories come from carbohydrates; food groups like fruits, vegetables, grains, beans, legumes, nuts, seeds, and dairy products all contribute carbohydrate. (1)

Carbohydrates are divided into three main types; sugars, starches, and fibers. Grains, legumes and some vegetables are categorized as starches, which are made of chains of sugars linked together. These starches can mostly be digested by the body, but some starches aren’t able to be digested in the small intestine. These starches are known as “resistant starches” and have generated a lot of interest in their potential for promoting health. They have been studied for their possible role in preventing cancer, energy balance, and insulin sensitivity. (2)

Continued on page 2
Resistant starch, continued

Resistant starches require more energy for digestion. Because the small intestine cannot break them down, healthy gut bacteria in the large intestine feed on resistant starches. The benefits of resistant starches include improved gut health, increased insulin sensitivity, bowel regularity, and increased satiety (feeling of fullness) after mealtime. (3)

Foods that have naturally occurring resistant starch include potatoes, beans, peas, lentils, legumes, plantains, green bananas, cereals, and whole grains, such as barley and oats. Ripe fruits tend to be low in resistant starch. Under-ripe fruits, like green bananas or plantains, are an exception. (4)

Cooking changes the amount of resistant starch in a food. Sometimes cooking lowers the resistant starch in a food; one example of this is oatmeal. Uncooked oatmeal has more resistant starch than cooked oatmeal. For oatmeal lovers, try overnight oatmeal. This is where you soak oats in your choice of milk and refrigerate overnight. This creates a different taste and texture than cooked oatmeal and retains the resistant starch.

Other foods are higher in resistant starch after cooking and cooling. Rice, pasta, potatoes, and beans fall into this category. Try cooking these foods in advance and allow them to cool in the refrigerator overnight before reheating.

There are several limitations when considering resistant starches as a strategy for promoting insulin sensitivity and blood glucose management. While resistant starches have been studied by researchers in lab settings, few research studies have been conducted with humans to demonstrate their effectiveness. Processing, preparation method, and storage conditions all affect the amount of resistant starch in a food product, so it is hard to know how much is in each food. Finally, resistant starch is not included on a food label so it can be difficult for consumers to find information to guide their choices. (5)

Choose foods that have resistant starch as part of your healthy eating pattern. Don't expect any miracles, though, and continue to enjoy the other nutritious foods that fuel you and help you manage your diabetes.
American Heart Association’s six core elements of a healthy dietary pattern

Nutrition is key for heart health. The way that we communicate about nutrition has changed over the years. Dietary advice used to focus on nutrients, such as getting enough vitamin C or cutting back on sodium. It then shifted towards promoting specific foods, like broccoli or sweet potatoes. We now recognize that people do not eat single foods or nutrients in isolation. These days, organizations like the American Heart Association (AHA) and the United States Department of Agriculture (USDA) recommend healthy eating patterns. What is an eating pattern? A pattern is a repeated design. An eating pattern includes the amount, proportions, variety, or combination of foods, drinks, and nutrients a person tends to eat and drink on a regular basis. (6) Some foods we simply tend to pair together; think burgers and fries, or eggs and bacon. Most people tend to eat and drink the same things repeatedly.

Read on for the ADA’s six core elements of a healthy eating pattern. (7) Choose one or two elements to focus on and see how that affects the other food choices you make.

Non-starchy vegetables: choose a variety of types and colors. Non-starchy vegetables are lower in carbohydrates than starchy vegetables and generally provide more fiber too. This helps keep blood glucose steady, our cholesterol levels down, and our digestive tract moving. Aim to make half of your plate non-starchy vegetables, such as greens, okra, turnips, tomatoes, and peppers. (8) Choosing canned or frozen veggies can help make meeting this goal more affordable.

Chopped frozen broccoli or spinach, canned green beans, and canned tomatoes are great non-starchy choices that have a longer shelf life than fresh produce. Choose low or no salt added varieties if possible.

Fruits: choose whole fruits to reduce risk of cardiovascular disease and type 2 diabetes. Enjoy canned and frozen fruit without added salt or sugar.

Grains: AHA and the USDA both recommend choosing 100% whole grains for at least half of your grain choices. Look for the first item in the ingredient list being labeled “whole,” such as whole-wheat flour or whole grain brown rice. Not a whole grain fan yet? Try starting with one whole grain per day. Oatmeal and popcorn are always whole grains.

Dairy: low or non-fat milk, yogurt, and cheese are lower in saturated fat than whole milk products. Lactose free milk or fortified soymilk are also great choices. These foods provide nutrients important for bone health, including calcium, vitamin D, and protein.

Protein: luckily, we have plenty of choices for heart healthy proteins sources in a healthy dietary pattern. For animal proteins, eggs, fish, and lean meats are good choices. Remove poultry skin and choose a lower fat cooking method, like baking, broiling, or grilling. AHA recommends getting most protein from plant sources. Examples include nuts, seeds, quinoa, and legumes like beans and lentils. These plant sources offer the additional benefit of fiber along with protein.

Heart healthy fats: heart healthy fats are found in nuts, seeds, seafood, and avocados. Replace saturated fats, found in shortening or lard, with liquid oils when possible.
Yogurt can be part of a healthy eating pattern to prevent or manage diabetes. The USDA Dietary Guidelines for Americans recommend choosing non-fat or low-fat dairy products and limiting added sugars to less than 10% of total energy intake daily. This translates to 50 grams of added sugar per day for an individual eating about 2000 calories per day. (2) Added sugars are sugars added to foods to create a sweet taste, but do not provide any additional nutrition. You can find added sugar listed on the nutrition facts panel. Yogurt has naturally occurring sugar in the form of lactose, a type of sugar found in milk. Many food companies add sugar to combat yogurt’s naturally sour taste.

Interested in yogurt, but not sure where to start? Here are some ideas:

- Buy unsweetened yogurt and add your own fruit or sweeteners. This helps you be more aware of the amount of sugar and adjust the amount to suit your preferences. Fruit, chopped nuts and seeds, honey, and blackstrap molasses all go great with yogurt.
- Use plain, nonfat yogurt as a dipping sauce by adding savory seasonings. See this month’s recipe corner for an idea to get you started. You can also use plain, nonfat yogurt as a substitute for higher fat products like sour cream or mayonnaise.
- Add unsweetened Greek yogurt to smoothies or scrambled eggs instead of milk for an additional protein boost. Greek yogurt is typically higher in protein than traditional yogurt. This is achieved by straining excess water out of the yogurt, resulting in a thicker and higher protein product.
- Sweetened ready-to-eat yogurts have a place, too. They can be both convenient and nutritious. For the most nutritional bang for your buck, choose a ready-to-eat yogurt with less than 10 grams of added sugar.
- Non-dairy? No problem. There are plenty of non-dairy yogurt alternatives made with almond, soy, cashew, coconut, and more. Follow the same tips as you would for dairy yogurt by choosing products higher in protein and lower in added sugars and saturated fat. Because these products are not made from dairy, the qualified health claims do not apply to these products.

Yogurt and type 2 diabetes

The US Food and Drug Administration (FDA) recently released a new qualified health claim for yogurt and type 2 diabetes. Qualified health claims are statements on food packages that tell consumers about a relationship between a food or nutrient and a health-related condition. The FDA approved the following claims for yogurt and a reduced risk for type 2 diabetes:

“Eating yogurt regularly, at least 2 cups (3 servings) per week, may reduce the risk of type 2 diabetes. FDA has concluded that there is limited information supporting this claim.”

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Food companies can add these qualified health claims to yogurt made from dairy milk, regardless of fat or sugar content.

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(1)
Recipe corner: spinach yogurt dip

Serving size: 2 tablespoons  
Yield: 24 servings

Ingredients: 
1 cup low fat cottage cheese  
1 cup plain, nonfat Greek yogurt  
1 cup frozen chopped spinach, thawed and drained  
1 tablespoon dry ranch seasoning mix

Instructions: 
1. In a blender, puree the cottage cheese until smooth. Add to a medium sized serving dish.  
2. Add the yogurt, spinach, and ranch seasoning mix. Stir together to combine.  
3. Refrigerate for at least 30 minutes prior to serving.

Source: American Diabetes Association Diabetes Food Hub. Online:  

Nutrition info, per serving: 15 calories, 0g fat, 43mg sodium, 1g carbohydrate, 2g protein.
References


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It is written by an Extension Nutrition and Health Specialist and other health professionals from the University of Georgia. This newsletter brings you timely information on diabetes self-management, nutritious recipes, and news about important diabetes-related events.

If you would like more information, please contact your local county Extension Office.

Yours Truly,

County Extension Agent

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