

Resistant Starch 101

Starches are a type of carbohydrate that consists of long chains of glucose molecules and are found in grains, potatoes, and various other foods. However, not all of the starch you eat gets digested. Sometimes a small part of it passes through your digestive tract unchanged. In other words, it is resistant to digestion. This type of starch is called resistant starch, which functions much like soluble fiber. Many studies in humans show that resistant starch can have powerful health benefits including improved insulin sensitivity, lower blood sugar levels, reduced appetite, and various digestive benefits.

Types of Resistant Starch

There are 4 different types of resistant starch, and how foods are prepared has a major effect on the amount of resistant starch in a food.

Type 1: Is found in grains, seeds and legumes and resists digestion because it's bound within the fibrous cell walls.

Type 2: Is found in some starchy foods, including raw potatoes and green (unripe) bananas.

Type 3: Is formed when certain starchy foods, including potatoes and rice, are cooked and then cooled. The cooling turns some of the digestible starches into resistant starches via retrogradation.

Type 4: Is man-made and formed via a chemical process. (Usually listed as polydextrin or modified starch on label)

However, this classification is not so simple, as several different types of resistant starch can co-exist in the same food, and depending on how foods are prepared, the amount of resistant starch changes. For example, allowing a banana to ripen (turn yellow) will degrade the resistant starches and turn them into regular starches.

How Resistant Starch Works

The main reason why resistant starch works, is that it functions like soluble, fermentable fiber. It goes through your stomach and small intestine undigested, eventually reaching your colon where it feeds your friendly gut bacteria, having a positive effect on the type of bacteria as well as their number.

Health Benefits of Resistant Starch

- Improves insulin sensitivity and lowers blood sugar levels, especially after meals
- Resistant starch has fewer calories than regular starch and thus may increase feelings of fullness and help people eat less and lose weight
- May help to lower cholesterol levels
- Improved immunity
- Improved digestion. Resistant Starch may help alleviate symptoms of irritable bowel syndrome, diverticulitis, constipation, and ulcerative colitis, as well as aid in regular bowel movements.

Foods high in resistant starch

- Oats, cool cooked varieties or prepare overnight oats for highest levels
- Cooked, and cooled rice
- Beans and legumes including pinto beans, black beans, soybeans, and garden peas
- Cooked and cooled potatoes
- Green Bananas
- Cooked and cooled starchy foods like pasta and sweet potatoes.
- Raw potato starch – This is one of the most concentrated sources of resistant starch. Adding 1-2 tablespoons per day to smoothies, overnight oats or even yogurt can help boost the resistant starch content of your diet. (NOTE: do not heat the potato starch, instead add to already cooked food.)

A simple way to increase the amount of resistant starch in your diet is to cook potatoes, rice or pasta a day or two before you want to eat them. Even if you reheat the item before eating, the resistant starch level will be higher than eating them freshly prepared. So, if you need an excuse for meal planning and prep, here it is!

Reference:

www.healthline.com