

Resistant starch is a type of carbohydrate that is resistant to the process of digestion. These starches pass through the small intestine undigested and enter the large intestine where they ferment and act as a food for the good bacteria in the gut. Resistant starches are not converted to glucose in the small intestine and therefore they may contribute to better blood glucose control.

## Foods rich in resistant starch

Foods that are rich in resistant starch include:

- beans
- peas
- lentils
- whole grains
  - sorghum, barley, oats
- plantains
- green bananas
  - o as bananas ripen the resistant starch converts to regular starch
- cooked and cooled rice and potatoes the process of cooking and cooling increases levels of resistant starch [it's okay to reheat after cooling]







## **Butyrate**

Butyrate is a short-chain fatty acid created when friendly gut bacteria break down resistant starch. Butyrate keeps your colon cells healthy and may provide protect against certain inflammatory diseases. The best way to increase levels of butyrate is to consume a diet rich in resistant starch



\*Low butyrate levels are associated with inflammatory bowel diseases such as ulcerative colitis, Crohn's disease, colon cancer, and insulin resistance



## **Benefits of Resistant Starch**

### Gut health

Resistant starch passes through the stomach and small intestine undigested and ultimately enters the colon where it ferments to feed the good gut bacteria. Beneficial gut bacteria [probiotics] thrive in an environment rich in prebiotics so providing them with a regular supply of resistant starch can contribute to optimal gut health.

Also, when the friendly bacteria in your gut feed on resistant starch, a compound called butyrate forms. Butyrate is the primary fuel for the cells that line your colon, keeping them healthy further contributing to optimal gut health.

## Blood sugar control

During the process of digestion, most carbohydrates are broken down to glucose that serves as energy for the body. Because resistant starch resists the digestive process, it is not converted to glucose and therefore does not contribute to increased blood sugar levels.

## **Fullness and Regularity**

Resistant starch can help you feel fuller longer and may contribute to weight management and stabilization. It may also improve regular bowel movements helping prevent constipation and promote regularity.

### Cholesterol

Resistant starch functions as soluble fiber in the digestive tract. As it moves through the small intestine to the colon, it has the ability to capture oil-soluble substances, like cholesterol, and clear them from the body. This may contribute to lower blood cholesterol levels.

### Cancer risk

The positive gut-health effects of resistant starch and the production of butyrate contribute to its potential ability to reduce colorectal cancer risk.





## How to Add Resistance Starch Fiber to Your Diet

### · Legumes: Chickpeas, Lentils, Beans

- Use canned chickpeas & make your own hummus for sandwiches or a dip!
- When purchasing store-bought hummus, make sure to check ingredients for preservatives and other artificial ingredients like food coloring, etc.
- Add canned beans (black beans, kidney beans) to salads.
- Make a cold three-bean salad.
- Add lentils to a cold soup or salad (use canned lentils for easy prep).
- Green lentils work best for cold lentils as they hold their shape better after cooking.

#### Oatmeal

- Eat oatmeal or oats cold, for instance, soaking oats overnight rather than cooking oats. See the Recipe for Protein Overnight Oats.
- Or cooked and chill oatmeal prior to eating.

#### Cold Potatoes

- Think homemade potato salad a favorite for the summer months.
- Puree cooked white potatoes to create a chilled garlic potato soup.

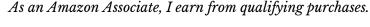
#### • Brown Rice

- Homemade rice pasta salad.
- Mix chilled brown rice with milk or non-dairy milk, raisins, and cinnamon in place of cold cereal for breakfast.

### • Green Bananas or Plantains (before they are ripened and yellow)

- Make a smoothie with green banana flour. My favorite green banana flour.
- Slice and mix with yogurt and oats for breakfast.
- Add to your yogurt, overnight oats, or smoothie.







# Best Resistant Starch Supplement

Unlike many other fiber supplements or powders, resistant starch fiber readily absorbs into water or other liquids and will not "blow up" in a glass of water. This is because resistance starch fiber is an insoluble type of fiber and readily mixes into liquid or a smoothie.

When supplementing with any fiber product, it is important to consider the type of foods or substances that are used in making the fiber powder, especially if you have IBS or have the tendency to have gas and bloat.

Whereas legumes (beans, chickpeas, lentils) are high in resistant starch, they are also high in FODMAPs. High FOMAP foods can be very difficult to digest, especially if you have IBS or SIBO.



That is why I recommend <u>Design for Health's</u> <u>PaleoFiber RS</u>, which contains green banana flour and organic potato starch powder.

Both fibers are more easily digested than fiber found in legumes and are often included in resistant starch fiber supplemental powder.

With all fiber supplements, start slowly and only add 1/4 to 1/2 of the recommended serving to a glass of water or in a smoothie. Work up to the full dosage over 2-5 days.

Get PaleoFiber RS Today!

PS I used it daily to help build up my butyrate.

As an Amazon Associate, I earn from qualifying purchases.

#### References:

1.Vich Vila, A. et al. (2018). Gut microbiota composition and functional changes in inflammatory bowel disease and irritable bowel syndrome; 2.Feng, Q. et al. (2015). Gut microbiome development along the colorectal adenoma-carcinoma sequence. Nat. Commun. 6, 6528; Chambers ES, 3.Preston T, Frost G, Morrison DJ. (2018). Role of Gut Microbiota-Generated Short-Chain Fatty Acids in Metabolic and Cardiovascular Health. Curr Nutr Rep. 7(4), 198-206.

