

Oat and Barley Beta-Glucan Soluble Fiber

Where It Comes From

Oat and barley beta-glucan is a soluble (dissolves in liquid) dietary fiber that is made from oats and barley. Beta-glucan is found naturally in several foods, including oats and barley. People have been growing and eating oats and barley for more than 2,000 years and numerous food products containing oats and barley are available in the US and around the world. Since the late 1980's, oat and barley beta-glucan soluble fiber has been recognized as a beneficial dietary component. Originally, it was most commonly consumed in whole oats, rolled oats and oat bran, but oat and barley beta-glucans are now also available as an additional ingredient for a variety of food products.

How It's Made

Beta-glucan is a major component of water-soluble fiber from cereal grains including oat and barley. Beta-glucan in oats and barley, mostly found in the bran, is extracted and then purified to remove other parts of the oat and barley plant.

What It Does

In 1997, the US Food and Drug Administration (FDA) authorized a health claim for oat and barley beta-glucan soluble fiber from oats for reduced risk of heart disease¹. The European Food Safety Authority (EFSA) has also issued positive opinions of two health claims for oat and barley beta-glucans for lower cholesterol and reduced after-meal glycemic responses².

How It Helps – Existing Evidence

1. Lowers blood glucose and insulin levels after meals. Doses of 4g of oat or barley beta-glucan per 30-80g of available carbohydrates should significantly reduce postprandial glycemic response.
2. Lowers total cholesterol and low-density lipoprotein (LDL) cholesterol (bad cholesterol) to help maintain healthy blood cholesterol levels. Overall, the data suggests that 3g/day of oat or barley beta-glucan can lower LDL cholesterol by 3-5 percent and total cholesterol by 2-4 percent.

How It Helps – Emerging Evidence

May help you feel full and/or reduce how much you consume during your next meal.

Recommended Daily Intake

The FDA and European Union (EU) have authorized health claims based on a daily consumption of 3g of oat or barley beta-glucan, the amount shown to significantly reduce total and LDL cholesterol levels. In most countries where a claim is allowed, the daily dose can be divided among three to four servings of food. The FDA authorized health claim requires a minimum of 0.75g per reference serving of food, for a daily intake of 3 grams.

What types of food is this fiber typically found in?

Oat or barley beta-glucan can be found in whole oats, whole oat flour, rolled oats, and oatmeal. Oat or barley beta-glucan soluble fiber is also added to beverages (smoothies, yogurt drinks, juice drinks), yogurt, nutrition bars, cereals, pasta, crackers, baked goods, soups, sauces, dressings, and dietary supplements.

Resources

- 1 Food and Drug Administration. Food Labelling: Health Claims; Soluble Fiber from Certain Foods and Risk of Coronary Heart Disease; Federal Register: Washington, WA, USA, 2008; Volume 73.
- 2 FSA Panel on Dietetic Products; Nutrition and Allergies (NDA). Scientific Opinion on the substantiation of health claims related to beta-glucans from oats and barley and maintenance of normal blood LDL-cholesterol concentrations, increase in satiety leading to a reduction in energy intake, reduction of post-prandial glycaemic responses, and “digestive function” pursuant to Article 13(1) of Regulation (EC) No 1924/2006.EFSA J. 2011, 9, 2207.