Emerging Oat Science for Registered Dietitians

Quaker continues to be a pioneer in exploring all the oat has to offer. Our world-class nutrition science team works with leading researchers to study the oat’s nutrient value and its impact on global public health priorities and issues. Among them:

Cholesterol

Research shows that the soluble fiber found in oats — called beta-glucan — helps reduce LDL cholesterol levels, which may in turn help reduce the risk for coronary artery disease when part of an overall diet low in saturated fat and cholesterol. Specifically, beta-glucan helps lower blood cholesterol by (a) triggering the liver to pull LDL cholesterol from the bloodstream and (b) binding some of the cholesterol in your digestive tract, preventing it from ever entering the bloodstream.

Blood Pressure

There’s a growing body of evidence investigating the association between whole grain intake and the risk of hypertension in various populations:

- **In young adults**, a large, multi-center prospective study showed that higher consumption of whole grains in the first 7 years of life was associated with reduced risk of elevated blood pressure in early adulthood.\(^4\)

- **In healthy adults who had slightly elevated blood pressure**, a clinical trial showed that 8 grams per day of soluble fiber from oat bran reduced blood pressure compared to baseline.\(^5\) A serving of Old Fashioned Quaker Oats contains 2 grams of soluble fiber.

- **In hypertensive adults**, a small, pilot study showed a reduction in blood pressure in response to oat cereal consumption.\(^6\)

- **Additionally**, in postmenopausal women, a study investigating the association between whole grain intake and death from ischemic heart disease found a beneficial association between higher whole grain intake and self-reported hypertension.\(^7\)

While these particular studies lend promising results, recent meta analyses suggest the relationship between whole grain and oat intake and blood pressure is still inconclusive, and it’s an area that Quaker scientists continue to closely watch.\(^8-9\)

Satiety

The scientific evidence is growing on the role that oatmeal may play in promoting satiety. Current studies show that oatmeal may help people feel full for their morning, particularly when part of a balanced breakfast.\(^10-12\) While multiple factors contribute to how much people eat, foods that enhance satiety may help individuals resist environmental cues like sight, smell, and variety of food. Oatmeal has been shown to enhance satiety, possibly due to the viscosity of the beta-glucan fiber.\(^13,14\) To date, studies evaluating satiety after a meal have relied mainly on acute measures of satiety such as hunger and fullness over several hours and caloric intake at the next meal. Additional research is needed to understand the impact of oat consumption on satiety and body weight over time.
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Energy

The scientific evidence supports that oats provide lasting energy. Studies show that oats deliver a slowly absorbed supply of energy to the body over a 2-4-hour period. This may, in part, be due to the soluble fiber in oatmeal, which may help slow digestion, and the release of glucose into the blood stream, providing a slower supply of energy.

Blood Glucose Management

Another potential benefit on the horizon relates to blood glucose management and the emerging evidence, which suggests that oats may have an impact. A study in healthy, older women showed that consumption of oat products resulted in a reduced glycemic response compared to consumption of glucose. Overall, data indicates that beta-glucan may improve glycemic control in healthy individuals and in individuals with diabetes. A recent meta-analysis study that combined data from sixteen independent clinical and observational studies revealed a beneficial effect of oats intake on glucose control and lipid profiles in type 2 diabetic patients. Similarly, a review of existing studies found that oat foods containing at least 4 grams of beta-glucan may reduce the blood glucose response after a meal in healthy individuals. Additional research is needed to fully understand this outcome and confirm the effect in other populations, but it’s another interesting area to watch.

Diet Quality

Data gathered as part of the 2001-2010 National Health and Nutrition Examination Survey (NHANES) suggests that consumers who eat oatmeal also tend to be healthier in general. They tend to have lower body weight compared to non-consumers; are less likely to smoke; and they tend to have higher intakes of protein, fiber, vitamins; and lower intake of saturated fats and cholesterol.
References


