(The following article was submitted by Pauliina Öhman from Raisio, Finland.)

Studies show: Oats in a gluten-free diet improve quality of life and gut well-being

A gluten-free diet is often associated with reduced intake of dietary fibre. This often affects perceived gut well-being of individuals with celiac disease and nonceliac gluten sensitivity. Recent studies show that including oats in a gluten-free diet improves quality of life and gut well-being. In Finland, consumption of gluten-free oats has been allowed for celiacs for over 20 years.

The suitability of oats in the diet for celiac disease patients has been a subject of disagreement. Recent Finnish studies confirm that consumption of gluten-free oats is safe and beneficial for individuals with celiac disease (CeD) and non-celiac gluten sensitivity (NCGS). In Finland, oats have been part of the national Current Care Guidelines for adults with CeD since 1997 and for paediatric patients since 2000.

"Oats are part of a habitual, daily diet for most Finns. Celiacs are no exception. For our recent study, it seemed impossible to find celiacs who do not use oats regularly," said Lotta Nylund, Researcher at Raisio.

According to data provided by the Finnish Celiac Society, 88 % of Finnish celiacs use gluten-free oats.

"Oats contain more fibre than any other gluten-free grains. That is why they are such an essential part of a gluten-free diet. In addition, oats have several health benefits. Beta-glucan, which is the special soluble fiber found in oats, helps to control cholesterol levels and blood sugar fluctuations," noted Eliisa Girsén, Nutritionist at the Finnish Celiac Society.

Feeling good – fewer gastrointestinal symptoms

A gluten-free diet may be nutritionally suboptimal due to a shortage of wholegrain products in particular. It may result in high fat and low fiber intake and thus lead to unbalanced gut microbiota. Reduced intake of dietary fibre predisposes CeD patients to multiple different health problems.

A recent study by Nylund *et al.* (2020) evaluated the relationship of perceived gut well-being to gut microbiota composition and biomarkers in subjects with celiac disease (n=19), non-celiac gluten sensitivity (n=10), and healthy controls (n=14). All subjects consumed oat products regularly.

Consumption of oat products enriched the gluten-free diet and enabled the intake of dietary fibre to reach the recommended level of 25–35 g/day. Frequent consumption of gluten-free oats did not result in microbiota unbalance in individuals with CeD or NCGS. The production of short chain fatty acids and levels of potentially harmful bacterial metabolites were observed to be at the same level in all study groups.

"These results indicate that oat consumption is safe and beneficial for patients with celiac disease or NCGS. Consumption of Finnish gluten-free oats as a regular part of the diet promotes perceived and measured gut well-being in individuals following a gluten-free diet," Nylund explained.

Better quality of life

Similar benefits of oat consumption were discovered in a study by Alakoski *et al.* (2020). This study investigated the safety and long-term quality of life and health effects of oat consumption in 312 long-term patients with dermatitis herpetiformis (DH). DH is a cutaneous manifestation of celiac disease. The treatment of choice is a life-long gluten-free diet.

Comparisons with DH patients not using oats established that the long-term consumption of oats does not cause additional skin symptoms or morbidity. Follow-up data showed that there were no differences in the presence of long-term illnesses, celiac disease complications, or the usage of medication between those consuming and not consuming oats.

However, oat consumers had a better quality of life and reported ongoing gastrointestinal symptoms less frequently. The study concluded that oats are safe for DH patients. Importantly, in the long-term, oats seem to improve the quality of life of DH patients.

Gluten-free oats and Finnish know-how

Finland has long traditions in both studying and cultivating oats. Commercial interest in gluten-free oats has grown, as the gluten-free category in general has grown beyond consumers with diagnosed medical conditions. Oat products can improve the quality and palatability of the gluten-free diet, reduce expenses, and diversify the selection of food products allowed.

Raisio Nutrition Ltd. is a leading producer of gluten-free oats. As a supplier, it has its own farmers under contract and control over the value chain. In Finland, farmers dry and store the oats directly in their own silos, which ensures high quality and traceability. Raisio has a long track record with consumer foods and oat formulations.

"We want to spread knowledge and know-how to people around Europe following a glutenfree diet. Finnish people are lucky, as oats are readily available in different forms — it doesn't have to be just porridge! At Raisio we have experience in processing oats into various interesting products," said Pauliina Öhman, Brand and Category Manager at Raisio.

Nutritionally superb grains

Oats are nutritionally superb compared to other gluten-free grains, with unique additional health benefits. They are higher in fiber, higher in protein, and contain good healthy fats. They also have a good level of important micronutrients such as iron, magnesium, vitamin B1, and folic acid.

A number of health benefits are offered by beta-glucan. According to health claims authorised by the EU Commission, it lowers cholesterol, maintains normal cholesterol levels, reduces blood sugar response, and aids digestion when consumed in sufficient amounts on a regular basis.

"Choosing Finnish gluten-free oats provides further benefits for food formulators. Finnish oat varieties combined with the clean, northern growing environment has an effect on taste, making Finnish oats nutty and soft-tasting with a fresh aroma. Finnish oats are also known for their beautiful pale colour and large grain size, which are important for oat flake production," Öhman noted.

Tasty, gluten-free oat products are appealing to all – not only to those with medical conditions. Opportunities are unlimited.

Studies:

Nylund *et al.* (2020), University of Turku: https://www.mdpi.com/2072-6643/12/9/2570 Alakoski *et al.* (2020), University of Tampere: https://www.mdpi.com/2072-6643/12/9/2570 (2020), University of Tampere: https://www.mdpi.com/2072-6643/12/9/2570

Definition: Gluten-free oats

Oats are naturally gluten-free, belonging to an altogether different cereal tribe than cereals containing gluten. In the EU, oats were officially accepted as a gluten-free grain in 2009.

The statement 'gluten-free' may only be made when the oats have been specially produced, prepared and/or processed in a way to avoid contamination by wheat, rye, barley, or their crossbred varieties and when neither the oat raw material nor the final product contains more than 20 mg/kg gluten (EU Commission Implementing Regulation No 828/2014).