Information for healthcare professionals

FACT SHEET #3 OATS & ALLERGY/INTOLERANCE

TAKEN FROM Oats FOR HEALTH

UNCLE TOBYS

FOOD ALLERGY & INTOLERANCE DEFINITIONS

Allergy

- An excessive reaction of the immune system to a normally harmless compound, usually a protein (which becomes an 'allergen')
- Allergies are immunoglobulin E (IgE)-mediated, and are immediate and often severe
- Allergic reactions can occur in any body surface including skin, lungs and intestine in contact with the environment

Intolerance

- Detrimental physiological or (auto-)immune reaction
- Often delayed or chronic reaction
- Gluten intolerance (coeliac disease) is an auto-immune disease leading to a wide spectrum of symptoms (e.g. chronic bowel complaints, growth retardation, chronic fatigue)

Oats contain proteins with little potential to trigger intolerances.

For example, wheat grains contain mostly (80% of the total protein content) prolamins and glutenins, which are highly diverse in composition, poorly degradable by humans, and remain immunogenic in the intestine (i.e. they can still trigger allergic and intolerance reactions). In contrast, oat grains contain mostly (80% of the protein fraction) easily-degradable globulins. The prolamin plus glutenin content (glutenin makes up a very minor portion) of oats is generally below 10%.

ALLERGIES TO OATS ARE RARE

In terms of cereal food allergy, the most commonly mentioned crops triggering reactions are wheat, maize and rice. In contrast, oat food allergy is only known as an exceptional, delayed-type, cell-mediated allergy, limited to infancy and usually resolving later in life.[1]

OATS - SUITABLE FOR MOST PEOPLE WITH COELIAC DISEASE

Coeliac disease (CD) is a common food intolerance to gluten proteins of wheat, barley and rye, with a prevalence of 0.5-2% among the Western population. Most patients with CD can consume oats without detrimental inflammation of the small intestine. The majority of adults and children with CD appear to tolerate moderate amounts (20 g/day for children to 70 g/day for adults) of pure oats.[2] The biggest problem with oats for CD patients is the fact that commercial oat products can become contaminated with wheat.[3] Contamination can already occur in the field when wheat, barley or rye plants grow among oat plants and are not removed systematically, but contamination can also occur later in the food production chain, during harvest, transport, storage and further processing.

WHAT DO COELIACS ASSOCIATONS RECOMMEND?

Coeliac Australia and Coeliac New Zealand currently recommend that coeliac patients should avoid even uncontaminated oats because of some people with coeliac disease reacting to oat avenins.[4] Coeliac associations from other countries (e.g. Canada, UK, USA, Finland, The Netherlands), however, suggest that for most people with coeliac disease it is okay to include uncontaminated oats in the diet. It has been suggested that the decision about whether or not to include oats should be made on an individual basis (i.e. this should be tested).

Source: OATS FOR HEALTH (2014) Oats & Allergy/Intolerance - Dr Luud JWJ Gilissen, Dr Ingrid M van der Meer, Diana M Londono, Dr Marinus JM Smulders Plant Research International – Wageningen UR, The Netherlands

References: 1. Sicherer, SH and Sampson, HA (2010). Food allergy. J Allergy Clin Immunol 125:S116-125. **2**. Pulido, O, Gillespie, Z, et al. (2009). Introduction of oats in the diet of individuals with celiac disease: a systematic review. Adv Food Nutr Res 57:235-285. **3.** Gelinas, P, McKinnon, CM, et al. (2008). Gluten contamination of cereal foods in Canada. Int JFood Sci Technol 43:1245-1252. **4.** Coeliac Research Fund (2008). Position Statement on: The consumption of pure oats by individuals with coeliac disease. Available online: www.coeliac.org.nz/oats (accessed 11 October 2010).