Gluten intake in 6- to 36-month-old Danish infants and children - DTU Orbit (25/12/2018)

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Coeliac disease (CD) affects about 1 % of the general population. Information concerning gluten intake in the general population is scarce. In particular, variation in gluten intake during the complementary feeding period may be an independent risk factor in CD pathogenesis. We determined the intake of gluten from wheat, barley, rye and oats in a cross-sectional National Danish Survey of Dietary Habits among Infants and Young Children (2006–2007). The study population comprised a random sample of 1743 children aged 6–36 months, recruited from the National Danish Civil Registry. The protein contents from wheat, rye, barley and oats were found in the National Danish Food Composition Table, and multiplied with the amounts in the recipes. The amounts of gluten were calculated as the amount of cereal protein × 0·80 for wheat and oats, ×0·65 for rye and ×0·50 for barley. Dietary intake was recorded daily for seven consecutive days in pre-coded food records supplemented with open-answer possibilities. Gluten intake increased with age (P < 0·0001). Oats were introduced first, rapidly outpaced by wheat, the intake of which continued to increase with age, whereas oats started to decrease at 12 months. Boys had a higher intake of energy (P ≤ 0·0001) and all types of gluten, except for barley (P ≤ 0·87). In 8–10-month-old (P < 0·0001) and 10–12-month-old (P = 0·007), but not in 6–8-month-old infants (P = 0·331), non-breast-fed infants had higher total gluten intake than partially breast-fed infants. In conclusion, this study presents representative population-based data on gluten intake in Danish infants and young children.