

Media Release

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High fibre during pregnancy reduces the risk of coeliac disease in children, novel research finds

(Glasgow, 7 June, 2019) High fibre intake during pregnancy is linked with a decreased risk of coeliac disease in children, new research presented today at the 52nd Annual Meeting of the European Society of Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) has shown¹.

Experts from Norway found that the risk of paediatric coeliac disease was 8% lower per 10g increase in fibre intake during pregnancy. For those with the highest fibre intake (>45 grams per day), the risk was 34% lower in comparison to the lowest fibre intake (<19 grams per day). High fibre intake from fruits and vegetables, rather than from cereals, were associated with the lowest risk.

The population-based study assessed over 88,000 children born between 1999 and 2009. Researchers measured mothers' intake of fibre and gluten during pregnancy before analysing whether each child had received a clinical diagnosis of coeliac disease in a mean follow-up time of 11 years.

"Currently, there is very limited data on the association between maternal fibre or gluten intake during pregnancy and the risk of coeliac disease in children", commented Dr Ketil Størdal, lead researcher of the study. "As this is the first study on maternal fibre intake, we cannot yet recommend any specific dietary measures during pregnancy to prevent coeliac disease and this needs to be further studied but we are currently assessing whether maternal fibre intake could impact on children's gut flora. This is one of the potential ways in which these findings can be explained."

Coeliac disease is a frequent and lifelong autoimmune condition, caused by an abnormal reaction to gluten – a protein found in wheat, barley and rye². Affecting 1 in 100 children in the majority of European countries, the only treatment for coeliac disease is strict compliance to a gluten free diet, which achieves remission of signs and symptoms³.

Notably, the research also found that maternal gluten intake during pregnancy was not associated with a higher risk of the disease. "Our findings do not support gluten restriction for pregnant women", concluded Dr Størdal.

The Importance of Early Coeliac Disease Diagnosis in Children

Diagnosed cases of coeliac disease only represent a small fraction of the total number of people affected and most children remain undiagnosed. Diagnosing coeliac disease as early as possible is essential for ensuring optimal growth, development and symptom management. There are many serious associated health complications if coeliac disease is left undiagnosed, including impaired

weight gain and growth problems, delayed puberty, iron-deficiency anaemia, chronic fatigue and osteoporosis.

“By providing early detection programmes for children, we can achieve earlier diagnosis and treatment, reduce the risk of future associated health complications and give children the opportunity to thrive”, explained Tunde Koltai, Chair of the Association of European Coeliac Societies (AOECS). “Greater public awareness and the establishment of national detection programmes for early identification of paediatric coeliac diseases are two steps to achieve earlier diagnoses.”

- ENDS -

Notes to Editors

For further information, to speak to Dr Størdal or an ESPGHAN expert, please contact James M. Butcher at media@espghan.org or call +44 (0) 1444 811 099.

INFOGRAPHICS

To view a high-resolution version of ESPGHAN's Coeliac Disease infographic, [please click here.](#)

Continued overleaf.



COELIAC DISEASE IN CHILDREN

Coeliac disease is a common and lifelong autoimmune condition of the small bowel, caused by a reaction to gluten – a protein found in wheat, barley and rye. It can occur at any age, including in babies when weaning, children and adolescents.

Heightened Risk...



Family history



HLA-DQ2 or HLA-DQ8 gene



Type 1 diabetes



Thyroid problems



Down's syndrome

Symptoms of Coeliac Disease in Children



Diarrhoea or constipation



Recurrent abdominal pain and bloating



Recurrent vomiting



Tiredness and irritability



Iron, vitamin B12 or folic acid deficiency



Growth problems

100

1 in 100 children are estimated to suffer from coeliac disease across Europe



Children have a 1 in 10 chance of developing coeliac disease if a first-degree relative is diagnosed



Up to 80% of paediatric coeliac disease cases remain undiagnosed throughout Europe



The only treatment for coeliac disease is to follow a lifelong gluten free diet

References

<http://www.aoecs.org/>
<https://www.ueg.eu/home/>
<https://www.coeliac.org.uk/home/>

This infographic was produced by the ESPGHAN Public Affairs Committee, the ESPGHAN Coeliac Disease Special Interest Group and the Association Of European Coeliac Societies.

About the Expert

Dr Ketil Størdal is a research professor at the Norwegian Institute of Public Health, Chronic Diseases and Ageing in Oslo, Norway and a paediatric gastroenterologist at Ostfold Hospital Trust.

About ESPGHAN

The European Society for Paediatric Gastroenterology Hepatology and Nutrition (ESPGHAN) is a multi-professional organisation whose aim is to promote the health of children with special attention to the gastrointestinal tract, liver and nutritional status, through knowledge creation, the dissemination of science based information, the promotion of best practice in the delivery of care and the provision of high quality education for paediatric gastroenterology, hepatology and nutrition professionals in Europe and beyond. Find out more by visiting www.espghan.org

About the 52nd Annual Meeting of ESPGHAN

The 52nd Annual Meeting of ESPGHAN is taking place from 5-8 June 2019, at the SEC in Glasgow, United Kingdom.

Every year the ESPGHAN Annual Meeting attracts over 4,600 experts and key opinion leaders in the field of Paediatric Gastroenterology, Hepatology and Nutrition from 100 countries across Europe and all five continents, turning it into the largest conference of its kind worldwide.

The European Society for Paediatric Gastroenterology, Hepatology and Nutrition 52nd Annual Meeting in Glasgow is being supported by the VisitScotland National Conference Bid Fund and a grant from the Glasgow Convention Bureau. ESPGHAN would like to thank VisitScotland and the Glasgow Convention Bureau for their support.

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For more information about the ESPGHAN Congress, including to view the programme, please visit: <https://www.espghancongress.org/>

References

1. Størdal, K., et al (2019). *Maternal gluten and fibre intake during pregnancy and risk of childhood celiac disease: the Norwegian mother and child cohort study*. Presented at the 52nd Annual Meeting of ESPGHAN.
2. ESPGHAN (2018). Coeliac Disease Awareness Day – May 16th 2018. Available here: <http://www.espghan.org/meetings-and-events/awareness-events/>
3. Altobelli, E. et al (2014). Burden of celiac disease in Europe: a review of its childhood and adulthood prevalence and incidence as of September 2014. Available here: https://www.researchgate.net/publication/269768580_Burden_of_Celiac_Disease_in_Europe_a_review_of_its_childhood_and_adulthood_prevalence_and_incidence_as_of_September_2014