

Pinto-Sanchez MI, Verdu EF, Liu E, et al. **Gluten Introduction to Infant Feeding and Risk of Coeliac Disease: Systematic Review and Meta-Analysis.** J Pediatr. 2015 Oct 20. pii: S0022-3476(15)01045-8. doi: 10.1016/j.jpeds.2015.09.032. (Review) [PMID: 26500108](https://pubmed.ncbi.nlm.nih.gov/26500108/)

OBJECTIVE: To assess the evidence regarding the effect of time of gluten introduction and breastfeeding on the risk of developing coeliac disease (CD).

STUDY DESIGN: We included randomized controlled trials and observational studies evaluating the proper timing for introducing gluten to the infant diet, the appropriate quantity of gluten consumption at weaning, and the effect of breastfeeding on CD risk. Studies were located through the electronic databases Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (Ovid), EMBASE (Ovid), and System for Information on Grey Literature in Europe (SIGLE). Two independent authors collected the data.

RESULTS: A total of 1982 studies were identified, 15 of which were eligible for data extraction. A meta-analysis was performed on 2 randomized controlled trials, 10 cohort studies, and 1 case-control study. There was a 25% increase in CD risk with late (>6 months) vs recommended (4-6 months) gluten introduction (risk ratio [RR], 1.25; 95% CI, 1.08-1.45). There was no significant effect of breastfeeding vs no breastfeeding on CD risk (OR, 0.55; 95% CI, 0.28-1.10), with substantial heterogeneity ($I^2 = 92\%$) among studies.

CONCLUSION: There is currently no evidence to support that early introduction of gluten to the infant diet increases the risk of CD; however, late introduction of gluten may be associated with increased risk of CD. More studies are needed that control for potential confounders and that evaluate environmental factors in low-risk families.