Timing of solid food introduction in relation to eczema, asthma, allergic rhinitis, and food and inhalant sensitization at the age of 6 years: results from the prospective birth cohort study LISA.

OBJECTIVE: Current prophylactic feeding guidelines recommend a delayed introduction of solids for the prevention of atopic diseases. This study investigates whether a delayed introduction of solids (past 4 or 6 months) is protective against the development of eczema, asthma, allergic rhinitis, and food or inhalant sensitization at the age of 6 years.

METHODS: Data from 2073 children in the ongoing LISA birth cohort study were analyzed at 6 years of age. Multivariate logistic regression analyses were performed for all children and for children without skin or allergic symptoms within the first 6 months of life to take into account reverse causality. RESULTS: A delayed introduction of solids (past 4 or 6 months) was not associated with decreased odds for asthma, allergic rhinitis, or sensitization against food or inhalant allergens at 6 years of age. On the contrary, food sensitization was more frequent in children who were introduced to solids later. The relationship between the timing of solid food introduction and eczema was not clear. There was no protective effect of a late introduction of solids or a less diverse diet within the first 4 months of life. However, in children without early skin or allergic symptoms were considered, eczema was
significantly more frequent in children who received a more diverse diet within the first 4 months.

CONCLUSIONS: This study found no evidence supporting a delayed introduction of solids beyond 4 or 6 months for the prevention of asthma, allergic rhinitis, and food or inhalant sensitization at the age of 6 years. For eczema, the results were conflicting, and a protective effect of a delayed introduction of solids cannot be excluded. Positive associations between late introduction of solids and food sensitization have to be interpreted with caution. A true protective effect of a delayed introduction of solids on food sensitization seems unlikely.