

# **Children's hypersensitivity to cow's milk Public health aspects and impact on families**

Akademisk avhandling

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av

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Avhandlingen baseras på följande arbeten:

- I. Mikkelsen, A., Rinne-Ljungqvist, L., Borres, M.P., van Odijk, J. Do Parents Follow Breastfeeding and Weaning Recommendations Given by Pediatric Nurses? A Study With Emphasis on Introduction of Cow's Milk Protein in Allergy Risk Families. *J Pediatr Health Care* 2007; 21: 238-244.
- II. Mikkelsen, A., Lissner, L. Borres, M.O. Milk allergy school: Nutritional therapy in group for parents of children with cow's milk allergy/intolerance in Primary Health Care. *Pediatr Allergy Immunol* 2005; 16: 86-90
- III. Mikkelsen, A. Borres, M.P., Björkelund, C., Lissner, L., Oxelmark, L. The Food hypersensitivity famiLy imPact (FLIP) questionnaire-development and first results. *Pediatr Allergy Immunol* 2013; 24: 574-81
- IV. Mikkelsen, A., Mehlig, K., Borres, M.P., Oxelmark, L., Björkelund, C., Lissner, L. Monitoring the impact of cow's milk allergy on children and their families with the FLIP questionnaire – a 6-month follow-up study. Manuscript in preparation.



UNIVERSITY OF GOTHENBURG

## **Children's hypersensitivity to cow's milk Public health aspects and impact on families**

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**Background and aims:** Diet during childhood can have lifelong consequences for health. Cow's milk is regarded as a basic food item in Sweden, but is also the most usual cause of adverse reactions during the first years of life. Parental education is crucial in order to prevent less adequate diet and malnutrition. This is especially important in children in need of special diet. Nutritional treatment affects the child's health and development and the family's daily life. Knowledge concerning affected children and their families is required in order to improve care.

**Methods:** Study I is a cross-sectional study in which compliance with nutrition recommendations was evaluated retrospectively. The focus was on introduction of cow's milk in the diet of healthy children, both with and without heredity for atopic diseases. Study II is an intervention describing the process leading to the development, evaluation and follow-up of nutritional therapy in groups for families with children with cow's milk allergy. In Study III, an instrument was developed to measure the perceived impact on daily life in families with children with cow's milk allergy, exclusively or in combination with other food allergy. Study IV assesses the change in perceived impact over time on families with children with food allergy, following the child's and the food allergy's development.

**Results:** I) most parents seem to follow recommendations given by the Child Health Centers. However, families with children at risk of atopic disease require attention; otherwise, preventive measures will be less effective. II) The establishment of a milk allergy school substantially improved access for families with affected children. It met the families' need for information, was appreciated according to the evaluation, entailed few administrative routines and was timesaving. The milk allergy school has become permanent and its implementation is increasing. III) A reliable, valid and sensitive instrument was created, showing that affected families are impacted negatively by the child's food allergy, compared to families with children not requiring a special diet. IV) The impact on affected families changed over time, following the development of the child and the cow's milk allergy.

**Conclusions:** Preventive information should be updated and communication needs to be improved. Continuous monitoring is necessary to prevent complications among affected children, including after the development of tolerance.

**Keywords:** cow's milk, cow's milk allergy, cow's milk hypersensitivity, nutrition in children, nutrition education, parental stress, quality of life and food allergy, public health

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