



Synthesis on eating behaviour

(Published online March 18, 2008)

How important is it?

The first years of life are characterized by [rapid developmental changes](#) related to eating. Infants will progress from a supine or semi-reclined position to a seated position and from a basic suck-swallow to a chew-swallow mechanism, learning to feed themselves and making the transition to the family diet and meal patterns.

Mild and transient [feeding problems](#) occur in 25% to 35% of young children, while severe and chronic feeding problems occur in 1% to 2%. Common conditions include overeating, poor eating, feeding behaviour problems and unusual or unhealthy food choices. The problem seems more prevalent in children with [developmental disabilities](#), with an estimated 33% experiencing mealtime difficulties.

Most eating problems in healthy children are temporary and easily resolved. However, eating problems that persist can undermine children's growth development and relationships with caregivers, leading to long-term health and developmental problems. Of increasing concern are the many young children who are at risk for nutritional deficiencies because of their poor dietary intakes and reliance on foods high in fat and sugar, and refined carbohydrates. These poor nutritional patterns (high fat, sugar and refined carbohydrates; sweetened drinks; and limited fruits and vegetables) increase the likelihood of micronutrient deficiencies (e.g. iron deficiency anemia) and overweight in children.

What do we know?

Children's [eating patterns and food preferences](#) are established early in life. They accept or reject food based on the sensory qualities of the food, such as taste, texture, smell, temperature or appearance. Environmental factors also play a role. The setting in which the food is presented, as well as the presence of others and the anticipated consequences of eating or not eating, all contribute to children's reactions to their food.

During feeding time, infants and caregivers establish a partnership in which they recognize and interpret both verbal and non-verbal communication signals from one another. This forms the basis of an emotional bond or attachment.

Feeding problems are caused by a number of [interacting biological and environmental factors](#) and it is often hard to define specific contributors. Biological factors may include early experiences with medical procedures, chronic hospitalization or medical problems that cause eating to be painful. In addition, children may experience oral motor deficits (e.g. difficulty swallowing) that make eating difficult.

When feeding skills are impaired and/or appetite is poor, problematic feeding behaviours such as refusal to eat may occur. [Refusal to eat](#) may lead to failure to thrive. Ironically, *failure to thrive* contributes to poor feeding skills, as undernourished children lack the energy to become capable eaters. Thus, a vicious cycle develops in which children refuse food, fail to learn that eating is no longer painful, miss opportunities to practice and develop oral motor skills, and fail to gain weight.

For essentially healthy children, the issue of why some children have selective food preferences (the so-called “picky” eaters) is becoming an important area of study as it relates to the epidemic of obesity in developed nations. As a child makes the transition to family food, internal regulatory cues regarding hunger and satiety are often overridden by familial and cultural patterns. Unhealthy family dietary habits and frequent exposure to fast foods are likely to establish negative eating patterns and put many young children at risk for nutritional deficiencies and overweight.

What can be done?

Feeding is a developmental skill. A multilevel approach—one that considers environmental, family, and individual factors—to interventions that promote healthy feeding patterns in children is perhaps the most effective strategy. Feeding difficulties call for the [combined expertise](#) of occupational therapists, speech therapists, behavioural psychologists, dietitians and a range of medical specialists that come together in multidisciplinary clinics.

At the environmental level, restaurants are encouraged to offer nutritious food choices for children. At the family level, guidelines exist to educate families on nutritional needs and provide strategies for healthy eating behaviour. To establish and change eating patterns in children, the [participation and modelling of caregivers](#) is key. They need to ensure that children are offered healthy food, on a predictable schedule and in a pleasant setting. Children who are raised with caregivers who model healthy eating behaviours will likely establish healthy food preferences and eating habits. [Educational guidelines](#) for teaching professionals, clinical practitioners and parents should include information on [nutritional needs and strategies](#) to promote healthy feeding behaviours (modelling positive eating behaviours, establishing consistent and predictable mealtime routines, and offering nutritionally balanced foods within a positive mealtime atmosphere).

[Effective interventions](#) for children with severe feeding problems, often associated with medical issues and poor growth, are contingency management treatments that use positive reinforcement for appropriate feeding responses and ignore or guide inappropriate responses. [Screening instruments](#) for problematic feeding behaviours help identify problems early on.

Moving forward, further research regarding physiological and environmental factors of problematic feeding behaviours would be desirable. As well, investigations on the individual, interactive and environmental determinants of feeding styles and the relationship between feeding styles and children’s eating behaviour and weight gain are needed.