

EATING AND FEEDING BEHAVIOUR

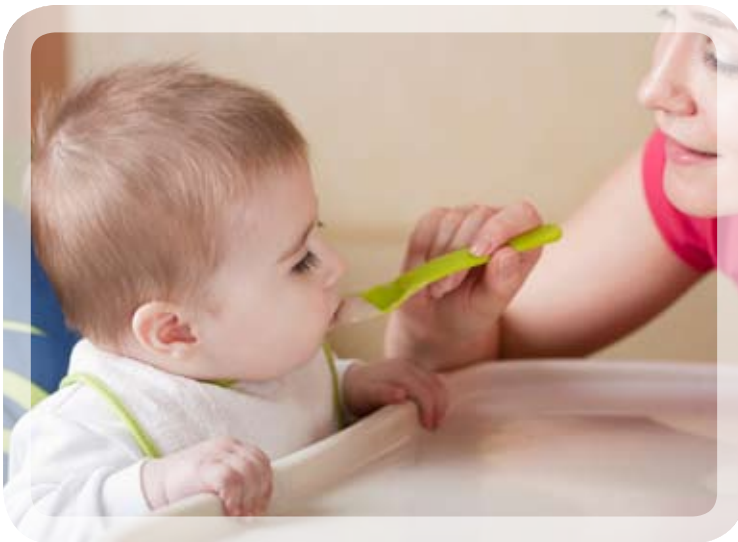
4. Encourage responsive (authoritative) feeding

The relationship between parents or carers and young children at mealtimes is important for the development of a healthy approach to eating. Responsive (or more accurately authoritative) feeding involves carers being attentive to children's needs and cues, and responding sensitively to them in a timely way. This ensures that children are not over- or under-fed and helps them develop independent eating skills.

Background

Perhaps the most significant factor contributing to the current obesity epidemic is our propensity to eat more than we need. Responsive feeding is a way to encourage children to eat more appropriate quantities and help them to keep to their body's requirements.

Appetite regulation



Babies are born with the ability to regulate how much milk they need to drink in order to grow healthily. Landmark studies by Fomon et al showed that infants less than 6 weeks old adjust their formula intake in response to being given formulas of differing energy density.¹ This ability to 'compensate' and appropriately eat more or less at a subsequent meal is still present in early childhood as illustrated by a number of studies. For example, when 3- and 5-year-olds in day care were given sweet drinks they compensated for the extra calories by eating less when they helped themselves to snacks.² This was true too when high energy snacks were given before lunch – the children compensated by eating less at the meal.³

This ability to compensate appears to diminish with age. Older children are less able to compensate than younger children, and by adulthood compensation is imperfect (particularly for calories taken as a liquid).⁴ Clearly some individuals are better able to compensate appropriately, and those that compensate less well tend to be heavier. This may reflect inherent differences in genetic make up, but also may be due to early feeding experiences.

Parents' beliefs and feeding styles

Research shows that parents influence their children's ability to protect themselves from overeating in a number of ways including the way they eat themselves, their beliefs and their feeding styles.

Parents often believe that pressurising children to eat a healthy food is an effective way to increase their liking for that food. However, it not only induces a dislike of these foods, it also reduces children's ability to learn to read their own satiety cues. For example, preschool children in day care are less able to regulate their food intake after a high calorie snack if parents are generally more controlling of what they eat.⁵

Restricting intake is another strategy that affects children's ability to regulate appropriately. In the short term it decreases energy intake, but ultimately it leads to children being less able to compensate for an energy dense meal themselves. In fact, restricted access to food and a pressure to eat are both linked to a higher intake of fat.⁶ In addition to leading to obesity, it can also lead to disordered eating behaviour⁷ – 5-year-old girls are already more likely to 'diet' if their parents are restrictive about food.

Controlling what children eat, through pressure or restriction, is common but counterproductive. It particularly occurs when parents are overweight themselves, have problems controlling their own food intake, are concerned about their child's weight, or are particularly invested in their appearance.⁶

Rationale for encouraging responsive feeding

The overwhelming availability of tasty energy dense foods and drinks is a major force that compels children to overeat. However, most young children still have a natural ability to appropriately regulate how much they eat. Preserving this ability would help them to grow up better able to resist the temptation to eat excessively.

Feeding practices appear to be an important influence, and can potentially be changed. Encouraging parents to learn to read their baby's hunger and fullness signals, feed them accordingly and refrain from using controlling or restrictive feeding practices is important. Beyond babyhood it might be possible to help children relearn how to 'listen' to their hunger and fullness cues themselves.

Interventions that provide supporting evidence

Research in the 'laboratory' setting suggests that young children can be encouraged to eat in a way that is more responsive to their hunger and fullness cues. One small trial in the community suggests that mothers of young children can be taught to feed more responsively.

- In a trial by Leann Birch, preschool children were encouraged to focus on their 'internal' cues – their feelings of hunger and fullness; another group were given 'external' cues such as being told to clean up their plates. Over a series of meals children in the first group learned to regulate how much they ate when the energy content of the meal was manipulated. Those who had external cues failed to do so.⁸
- In a further trial, preschool children were explicitly taught about internal cues in an imaginative way. A class of children were given dolls with detachable stomachs that were bursting full, empty or comfortably full. Over a few weeks, they learned to talk about their feelings of hunger and fullness, and reinforced this by learning to 'Velcro' an appropriate stomach to the doll. At the end of the study children who had received the educational programme ate less at lunchtime after they had a high energy snack, whereas the control group failed to do so.⁹
- A home-visiting obesity prevention programme focusing on changing lifestyle behaviours and improving parenting skills was developed for mothers of Native-American 2-year-olds (who are at high risk for obesity). Mothers either received this obesity prevention programme or a general parenting programme. Those who received the obesity prevention programme fed their children in a less restrictive way, and the children themselves decreased their energy intake.¹⁰

Key considerations

The term *responsive feeding* is used in the literature, but authoritative feeding is a more appropriate term. In feeding, as in other aspects of parenting a balance between being responsive and 'being in charge' is the key.

While research indicates that babies are usually born with a natural appetite regulation, some individuals are born with inappropriate appetites. In this circumstance, parents need to be able to firmly set boundaries while maintaining responsiveness. This is exemplified in children with obesity syndromes such as Prader Willi. The challenge is to set boundaries without employing unhelpful restrictive practices.

There is sometimes confusion about the concept of restricting foods. Restricting children from eating desired energy dense foods is unhelpful, especially in situations where others are eating them or there is concern about the child being overweight – the food simply becomes more attractive. This form of restriction is quite different from action taken to make sure that energy

dense foods are simply unavailable or inaccessible in the home – a sensible strategy for avoiding arguments and temptation, or the need to restrict.

Potential actions

- Ensure that parents and carers are aware that babies and children need guidance rather than control when eating. This involves
 - Recognising babies' and toddlers' hunger and fullness cues
 - Feeding responsively so that children preserve their ability to sense and respect their fullness and hunger cues
 - Avoiding pressurising or coercing children to eat
 - Avoiding giving 'external' cues. Encourage children to listen to their 'internal' cues
 - Avoiding restriction of certain foods as this makes them more desirable
- Responsive feeding in the weaning period is of such importance that it would be helpful to consider including this subject in antenatal classes
- Children should be encouraged to be aware of their internal cues of hunger and fullness and to avoid eating to overfullness. Talking about this is important in child care settings as well as in the home.
- Explore ways to educate children in childcare to recognize and respond appropriately to their hunger and fullness cues
- Help parents establish clear boundaries around eating behaviour while avoiding restrictive practices

5. Encourage positive family mealtimes



Background

Family meals were once an important daily ritual that involved home-prepared food eaten at a consistent time with the entire family round the table. In recent decades the social context of family meals has changed. Fewer meals are eaten in the home and fewer meals are eaten as a family group. A study in the States showed that only 38% of 13-year-olds have regular family meals (defined as more than 5/week) and this decreases to 22% by the age of 17 years.¹¹

There is also more reliance on convenience foods and meals prepared outside the home. In the United States, 46% of food expenditure is spent on food eaten outside the home,

and 34% is spent on fast foods.¹² Preschoolers eat 1 in 6 of their meals out of the home and this ratio increases to 1 in 3 meals for adolescents – fast food restaurants account for more than half of these meals.¹³ This change in meal patterns has obvious implications for obesity as meals eaten outside the home tend to be more energy dense and are served in larger portions. The impact of this is illustrated by the finding that American adolescents who regularly eat fast foods have a higher total energy intake and also eat fewer vegetables and fruit.¹⁴

Rationale for encouraging positive family mealtimes

Research shows that family mealtimes are linked to a number of benefits, both nutritional and psychosocial. For example:

- Families who consistently have family mealtimes are less likely to have overweight children¹⁵
- Overweight teenagers who eat 7 meals per week with their family are more likely to be successful at losing weight. This is true for white, black and Hispanic Americans.¹⁶

- Older children and adolescents who regularly eat with their families
 - eat more fruit and vegetables, dietary fibre, dairy products, basic vitamins and minerals^{17–19}
 - eat less saturated fat and fast foods^{17–19}
 - drink fewer soft drinks^{17, 18}
- Children who have companionship at mealtimes tend to eat more servings of the basic food groups¹¹
- There is a long term effect – 13-year-olds who have regular family meals continue to have regular meals, eat more healthy foods and eat less fast foods five years later¹¹
- Family meals have been linked to other benefits such as better psychosocial well being, less high risk behaviours and lower academic dropout rates²⁰

One has to be cautious before assuming that family meals in themselves are responsible for all these benefits. Family mealtimes may just be a marker for the quality of family life and how the family functions. Nonetheless family meals clearly provide opportunities for parents to model healthy eating and healthy eating behaviour. As other adults²⁰ and older children²¹ can influence younger children to try new foods the impact may be additionally enhanced.

The quality of the family mealtime is an important factor. Family mealtimes can be stressful, and they have the potential to generate and perpetuate unhealthy attitudes to healthy foods. One example is the finding that it is counterproductive to complain if food is not eaten – it has been shown that negativity decreases rather than increases the chances that that food will be eaten again.²² Television viewing during mealtimes is another factor that has a significant negative impact on the quality and quantity of foods eaten as a family. On the other hand, positive social interactions and comments about food during a meal have been shown to enhance the adoption of healthy eating behaviours.²⁰

The corollary of promoting a return to quality family mealtimes should be an accompanying reduction in the amount of food eaten outside of mealtimes and outside the home. These habits contribute to the amount of energy dense foods that young children eat and are also linked to a reduction in how much fruit, vegetables and dairy foods are eaten.²³

Lastly, as for many of the action points in this document, there is evidence that eating patterns, at least from adolescence, track into later life.¹¹ There is therefore potential that promoting family meals could have long term effects. As for most lifestyle behaviour, parents are likely to find it easier to introduce the concept of regular family meals while their children are young, rather than attempting to do so later on when their children are older.

Interventions that provide supporting evidence

There are no interventions that focus specifically on promoting family mealtimes although they are likely to be an intrinsic component of a number of obesity management programmes

- The PATCH programme emphasises the importance of family mealtimes and encourages parents of obese children to introduce them into family life. This programme is successful in helping children and their parents achieve weight reduction.^{24, 25}
- The HELP programme that underpins the WATCH IT intervention has developed two messages that reinforce the importance of healthy eating patterns: 3+2 and the 3Ss. These relate to the importance of having 3 meals and 2 sit down snacks a day, and eating Slowly, Socially and Sitting Down. This appears to be a helpful component of the approach²⁶
- The randomised controlled trial of the Triple P parenting programme in Australia involving parents of obese children provided some focus on family meals for those families receiving the augmented programme. This may have contributed to the success of those children who achieved reduction in their obesity²⁷

Key considerations

It has already been highlighted that regular family mealtimes may be a marker for general family functioning.

It is important to emphasise the quality of interaction at mealtimes as much as the frequency of family meals – a negative or stressful atmosphere can generate unhealthy attitudes to eating.

Mealtimes provide an excellent opportunity for parent modeling of enjoyment of healthy foods and positive eating behaviours.

Potential actions

- Encourage the concept of family meals early on
- Health education messages should extend to include:
 - The importance of a positive atmosphere at family mealtimes
 - The negative effect that television has on mealtimes
 - 3+2 (children require three meals and 2 sitdown snacks a day)
 - The 3 Ss (ensuring meals are eaten Sitting down, Slowly and Sociably)
 - The fact that complaining if food is not eaten is counterproductive and reduces the chances of a child eating that food at a subsequent meal
 - The poor nutritional quality of foods commonly eaten outside of the home.
- Encourage regular family mealtimes and help parents acquire the necessary skills which include:
 - Parenting skills – especially avoidance of becoming a short-order cook to pander to children's requests
 - Time management skills
 - Cooking skills and guidance about preparation of easy and quick meals for working parents
- Encourage the concept of 'family meals' in preschool settings too

6. Find alternatives to food for comfort and to encourage good behaviour

Food is commonly used for non-nutritional reasons. It is used as a reward for good behaviour or achievement, as bribery or coercion to encourage children to be good and for comfort at times of distress – both physical and emotional. This is unhelpful as the foods used are invariably energy dense (often chocolate and sweets) and when given in these circumstances gain a special value and become more desirable. The effects may be long term as food preferences track into adult life and it is likely that a dependence on food to satisfy emotional needs does so too.

There have been good studies that demonstrate how children's attitudes to foods change when they are used as rewards, so that even foods that children prefer can become disliked if they are promised a reward for eating them. Interventions that specifically focus on using alternatives to food for comfort and to encourage good behaviour have not been reported

Potential actions

- Make parents and carers aware of the disadvantages of using food for reasons other than nutrition
- Help parents and carers develop alternatives to food when comforting children or encouraging good behaviour
- Increase awareness that the strategy of using reward foods to encourage healthy eating increases the desirability of the reward food and decreases liking of the healthier food. (for example 'if you eat up all the broccoli on your plate you can have some icecream')
- Emphasise that hugs and attention may be as or more effective than food for comfort when children are in physical or emotional distress.

EATING AND FEEDING BEHAVIOUR:

Resources and References

Resources

- Tackling obesity with HENRY. Candida Hunt and Mary Rudolf. Published by Community Practitioner and Health Visitors Association 2008
- Eating Behaviours of the Young Child. Ed William Dietz and Leann Birch. American Academy of Pediatrics 2007
- Tuning in to Mealtimes – a DVD for practitioners illustrating how responsive feeding can be encouraged. Available through HENRY training: www.henry.org.uk
- Baby led weaning – a DVD promoting an approach to weaning whereby infants are only presented with food that they can eat themselves and have control over quantities Produced by Gill Rapley and available at sales@markittelelevision.com
- Taking Steps to Healthy Success. A child care learning package to promote healthy eating and physical activity. Module 2 Your role in promoting healthy eating and physical activity. Nemours Health and Prevention Services, Delaware, USA. www.GrowUpHealthy.org
- How to get your kids to eat...but not too much. Satter E. Bull Publishing Company 1987
- Mindless Eating by Brian Wansink. Published by Bantam Dell 2006

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