INFANT & TODDLER FORUM

An educational forum on infant
and toddler nutrition and development

www.infantandtoddlerforum.org

THE FORGOTTEN YEARS
A PRACTICAL APPROACH TO OVERCOMING DEFICIENCIES IN THE TODDLER DIET

A report from the Infant & Toddler Forum Study Days, Plymouth 2006

Addressing Key Issues on the Nutritional Requirements and Eating Behaviour of One to Three Year Olds

Supported by an educational grant from Danone UK.

INTRODUCTION

While there is a wealth of information available on breast feeding, weaning and the feeding of infants, once a child becomes a toddler, it can become increasingly difficult to find up-to-date and practical nutritional advice. These pre-school years often seem to be forgotten.

Yet a balanced diet and good feeding habits during this period are essential for the child's healthy growth and development. This is reflected in the increasing expectation from government initiatives that health and childcare professionals offer nutritional guidance to parents of toddlers. There is also an increasing demand for information from parents, carers and healthcare professionals.

It was for this reason that the Infant and Toddler Forum continued its successful UK-wide programme of study days during 2006. Over the past two years 12 study days have been held across England, Wales and Scotland. They have been attended largely by health visitors, dieticians and nursery nurses as well as other healthcare professionals that look after children, including paediatricians. Judging from the interest and the high attendance rates, the meetings are clearly addressing an unmet need.

The programme was presented by a multidisciplinary group of experts with first-hand experience in child nutrition, and offered practical guidance on how to ensure toddlers receive a full and balanced diet. The aim was to provide evidence-based information and best practice guidance for healthcare professionals. From the meeting highlights presented in this supplement, which focuses on the presentations delivered to the meeting in Plymouth, I hope you will agree that we have achieved that aim.

Professor Lawrence Weaver

Chairman, Infant & Toddler Forum

STUDY DAY SPEAKERS ACROSS THE SIX EVENTS

Jenny Gordon, Research and Development Fellow, Radcliffe Infirmary, Oxford.

Dr Gillian Harris, Senior Lecturer in Applied Developmental Psychology, University of Birmingham and Consultant Paediatric Clinical Psychologist, The Children's Hospital, Birmingham.

Judy More, Freelance Paediatric Dietitian, London.

Dr Jane Morgan, Childhood Nutritionist, Nr Guildford, Surrey.

Dr Robert Moy, Consultant Community Paediatrician, South Birmingham Primary Care Trust and Senior Lecturer in Community Child Health, University of Birmingham.

Dr John Puntis, Consultant Paediatric Gastroenterologist, Leeds General Infirmary.

Dr Atul Singhal, Honorary Consultant Paediatrician, Whittington Hospital and Great Ormond Street Hospital, Deputy Director, MRC Childhood Nutrition Research Centre, Reader in Paediatric Nutrition at the Institute of Child Health (ICH), London.

Dr John Tripp, Consultant Paediatric Gastroenterologist and Clinical Senior Lecturer in Paediatrics at the Peninsula Medical School of the Universities of Exeter and Plymouth.

Bianca Turnbull, Research Assistant, Institute of Child Health, University of London.

Dr David Tuthill, Consultant Paediatrician, Children's Hospital for Wales, Cardiff.

Professor Lawrence Weaver, Samson Gemmell Professor of Child Health, University of Glasgow, Consultant Paediatrician.

WHAT THE DELEGATES SAID!

Nursery Manager - Birmingham

'Exceptionally high standard of speakers and information. I would definitely use the support materials in my work. From today's event I will take away confirmation of my conviction of the essential need for good early nutrition.'

Nursery Cook - Cardiff

'I found the course very interesting and will take all information I have gained and share with my colleagues.'

Community Nursery Nurse - Manchester

'Enjoyable day - I can certainly use the information I picked up today in practice.'

Health Visitor - Glasgow

'Coping with difficult eating behaviour - totally changes my practice!'

Nursery Director - London

'Support materials are very helpful and the information is very up-to-date.'

TODDLER NUTRITION - THE FORGOTTEN YEARS

DR JOHN TRIPP

Health and childcare professionals face a challenge when asked to advise on the nutrition and diet of children aged between one and three. For while there is an abundance of guidance and information on the feeding of infants and school-age children, the toddler years are often only sparsely covered. As a result, explained Dr John Tripp in his introduction to the Plymouth study day, it can be difficult to offer advice that is both evidence-based and up-to-date.

'Infant nutrition, quite rightly, has always been a high priority and, more recently, nutrition in schools has become a hot topic,' said Dr Tripp, a clinical senior lecturer in Paediatrics at the Peninsula Medical School. 'But none of that applies to toddlers. They are quietly at home and nobody notices them. There's therefore a dearth of information.' Nevertheless, said Dr Tripp, there were a number of challenges facing those concerned with toddler nutrition. These included overweight and obesity, iron deficiency and anaemia, growth problems, dental caries, vitamin D deficiency and rickets, constipation, eating difficulties and food intolerances.

Dr Tripp presented data from the 1995 National Diet and Nutrition Survey[1] showing that:

- 75% of toddlers have a low iron intake
- Around 1 in 10 are anaemic
- 85% consume more sugar than recommended
- 50% have sugar sweetened/artificially sweetened drinks
- 30% have tooth decay
- Low vitamin C and folate are common in low income families

Obesity and overweight are also on the rise in young children, said Dr Tripp. The most recent UK data (2004) shows a 43 per cent increase in obesity among 2-10 year olds over the last ten years so that just under one in three are overweight or obese and for 11-15 year olds a near 75 per cent increase in obesity with just over one in three overweight or obese.[2] This could have alarming implications for the health of future generations, he said.

These adults will then be at increased risk of a number of conditions such as heart disease, metabolic syndrome and type 2 diabetes. Dr Tripp pointed out that the American Heart Association (AHA) guidelines had attributed 75 to 90 per cent of cardiovascular disease to adverse behaviours including poor nutrition[3]. To combat this, the AHA had recommended a programme of education, health policy and environmental change to support optimal nutrition and physical activity. However, this is easier said than done.

'Behavioural change is very hard to achieve in the population,' said Dr Tripp, 'and we need to start young.'

Dr Tripp listed a number of strategies that could be used to improve nutrition for young children. These included advising parents to:

- Offer nutrient-dense rather than energy-dense foods
- Serve age-appropriate portions
- Use low-fat dairy products
- Limit snacking, juice and sweet drinks
- Limit sedentary behaviours
- Allow children to self-regulate their energy intake

'Health visitors, nursery nurses, and other health and teaching professionals play an important role in guiding and supporting parents,' said Dr Tripp. He stressed that it was important that this guidance was based on comprehensive and up-to-date information. Results of a survey carried out in 2005 revealed that many health professionals felt they needed more information when offering advice on toddlers' nutrition[4]. Of 301 health professionals surveyed, nine out of ten felt they needed more information. Areas of particular need included the management of faddy eaters and of food allergies. It was to meet this need for more information that the Infant & Toddler Forum was formed and its Factsheets, website and study days are part of its drive to fill the knowledge gap, said Dr Tripp.

'Confident, informed and effective advice is what parents need if we are going to help them with their toddlers. Blarney isn't good enough.'

DIETARY DEFICIENCIES COMMON IN TODDLERS

BIANCA TURNBULL

Deficiencies in essential dietary components such as iron, zinc, fibre and vitamin D are alarmingly common among UK toddlers, according to an extensive search of the literature by the Medical Research Council's Childhood Nutrition Research Centre. Research assistant, Bianca Turnbull, told the study days that good quality research on toddler nutrition was particularly hard to find. This made it difficult for healthcare professionals to offer solid, evidence-based guidance for the parents of young children.

'Often the only studies that exist are in adults. There is no evidence and no research on toddlers. But because we still need to give guidance our recommendations are based on evidence in adults.' This often led to inconsistencies in the advice given. For instance, Ms Turnbull presented guidelines from several countries on iron intake for children which ranged from 5mg to 7mg per day. Ms Turnbull revealed the results of an extensive review of peer-reviewed research on the diet of children aged 12 to 36 months published in developed countries over the past 20 years (J. Lanigan et al. Institute of Child Health, In Preparation). This showed some worrying deficiencies in the diets of young children. For instance, the 1995 National Diet and Nutrition Survey (NDNS) found that only 5 per cent of toddlers were receiving the reference nutrient intake (RNI) of vitamin D[1]. The Avon Longitudinal Study of Parents and Children (ALSPAC), which was conducted in the south west of the UK, found the mean vitamin D intake to be around 20% of the RNI[5]. Because vitamin D can also be obtained through exposure to sunlight, low levels in the diet did not necessarily mean that all these children were deficient in the vitamin, said Ms Turnbull. However the evidence suggested that between 20 per cent and 40 per cent of UK Asian toddlers were deficient in vitamin D[6,7]. Despite these deficiencies, only 17 to 19 per cent of the UK's toddlers were taking vitamin D supplements, said Ms Turnbull[1,5].

'The lowest intake of supplements was in the north, where they probably needed it the most,' she said.

The consequences of vitamin D deficiency can include poor bone development and rickets, said Ms Turnbull. Indeed, in recent years there had been a resurgence of vitamin D deficiency related rickets, she stressed. Risk factors for this disorder included:

- Excessive sun protection
- Lack of vitamin D supplementation
- A belief milk is high in vitamin D
- Darker skin
- Exclusive breastfeeding after six months
- High phytate diets as found in wheat, maize, soy, chapati/roti
- Macrobiotic diet

Evidence on toddlers' iron intake was equally worrying, said Ms Turnbull. According to the NDNS, around 84 per cent of children were receiving less than RNI levels of iron in their diet. Levels of anaemia in children aged between 18 and 30 months were between 12.5 per cent[1] (in NDNS) and 17.3 per cent[5] (in ALSPAC), she said. Risk factors for iron deficiency included a high phytate diet and the early introduction of cows' milk. The consequences of iron deficiency could be serious, including impaired cognitive, mental and motor development, stressed Ms Turnbull.

'In ALSPAC low haemoglobin levels at eight months led to a higher level of impaired motor development at 18 months[5],' she said. 'This raises the question of whether we should be conducting early screening for iron deficiency.'

Evidence on the level of zinc in toddlers' diets showed that 72 per cent of children in NDNS did not meet the RNI of 5mg per day, said Ms Turnbull, while the amount of fibre in toddlers' diets (6-7g/day in ALSPAC[5] and 5.5g/day in the NDNS[1]) was also well below recommended levels.

In contrast to these dietary deficiencies, Ms Turnbull pointed out, there were also some nutrients that toddlers and young children were consuming to excess. Sugar, for instance, is now estimated to contribute one third of toddlers' total daily calorie intake. Most of this comes from sugar added to foods, said Ms Turnbull.

'Sugar consumption is the third greatest risk for dental caries[8] (after tooth brushing and social class) and it is also a major contributor to childhood obesity.' While acknowledging that few studies had been carried out on the incidence of obesity in toddler-age children, Ms Turnbull presented some alarming data on obesity in older children and adolescents. By 2010 it is estimated that 19 per cent of boys and 24 per cent of girls aged six to ten will be obese[9]. In the 11-to-15 age group the estimated prevalence is 31 per cent for boys and 27 per cent for girls[9].

These figures present a significant health challenge for future generations, said Ms Turnbull. 'This matters now because obese children do become obese adults,' she said.

CALL FOR GUIDELINES ON CHILDHOOD CONSTIPATION

JENNY GORDON

There is an urgent need for national guidelines on the management of constipation in young children and toddlers, according to Jenny Gordon, a research and development fellow at the Royal College of Nursing Institute. Managing childhood constipation is one of the most common, yet underestimated, problems facing the parents and carers of young children, Ms Gordon told the meetings. To demonstrate this she began her presentation by asking how many members of the audience were working with children with constipation. Most of the audience raised their hands.

This corresponds with data from research showing that constipation is one of the most common conditions in Western countries with an estimated prevalence of 5-30 per cent[10,11]. '£43 million[12] is spent annually by the NHS on prescribed laxatives,' said Ms Gordon. 'That's adults as well as children but it doesn't include all the over-the-counter stuff.'

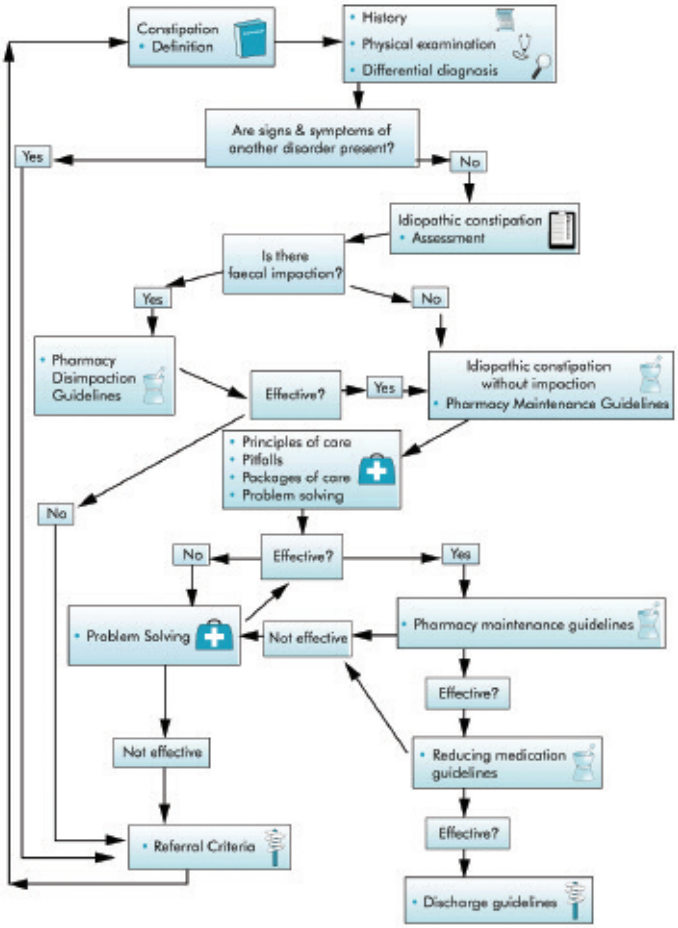
Unfortunately there is no single treatment for constipation and many children do not respond and continue to have chronic problems[13]. Ms Gordon defined 'idiopathic' constipation as constipation that could not be explained by 'anatomical, physiological, radiological or histological abnormalities'. Its signs and symptoms included:

- Abdominal pain
- Irregular bowel habit
- Irregular stool texture
- Soiling/overflow
- Foul smelling wind
- Excessive flatus
- Withholding stools
- Pain/discomfort
- Poor appetite
- Lethargy/malaise
- Irritability/unhappy mood

There were a number of contributing factors to the development of constipation in toddlers, said Ms Gordon. These included social factors such as diet, potty training, changes in routine/lifestyle, lack of exercise, and lack of privacy. Psychological factors included eating disorders, emotional upsets and the parents' perceptions of 'normal' bowel patterns. There were also a number of physical causes such as anal fissures, illnesses, medications and sometimes simply the position in which the toddler was placed on the toilet.

'Probably the most underestimated thing is the position on the toilet,' said Ms Gordon. 'Toddlers need to feel comfortable and not feel they are about to fall in. As an adult we sometimes forget how big a toilet looks if you are two.' On rare occasions constipation could also be the first sign of abuse, said Ms Gordon.

Fig 1. Constipation treatment pathway



The management of toddlers' constipation should include a history, a physical examination and diagnosis to exclude any physical cause, said Ms Gordon. The parents should then be given a management plan and offered follow-up and support. 'This isn't a quick fix,' she stressed. 'It takes a lot of time so a management plan is really helpful as it gives parents a clear picture of what they are expected to do and what they can expect of the people that are supporting them.' The management plan should initially include pharmacological measures to dis-impact the toddler's bowel, said Ms Gordon. This step was vital to the success of management, she said, so the medication dose should be increased until effective.

'If you don't dis-impact first, all other treatments will be at best ineffective and at worst they will exacerbate symptoms.'

However, the recommended dosage should only be exceeded under medical supervision, she stressed. Dis-impaction should be followed by nutritional measures aimed at ensuring a balanced, healthy diet. However, Ms Gordon advised against adding large amounts of fibre to the toddler's diet. 'If you try and increase their fibre at this point then you may make their constipation worse, as they are already having very bulky stools. It's a fine balancing act.' Behavioural interventions should also be encouraged. These should focus on small changes that the family finds sustainable, such as encouraging the family to sit down to eat together at least once a week. Above all, said Ms Gordon, it was important that health professionals take both the condition and the parents' concerns seriously.

'Childhood idiopathic constipation may appear to be a simple condition but it is frequently unrecognised leading to ineffective management and conflicting advice. The children don't grow out of it and the longer it goes on without treatment the harder it is to resolve.' Ms Gordon stressed there was an urgent need for national guidelines on the management of childhood constipations to ensure that the advice given to parents was consistent.

'There is a need for national guideline development, based on clinical experience, current evidence available, and consensus, to standardise current practice. We need to make sure that the advice we are giving is consistent, confident, knowledgeable and accurate.'

AVOIDING DIETARY DEFICIENCY IN TODDLERS

DR JANE MORGAN

Nutritional deficiencies in toddlers should be addressed by a combination of dietary measures and micro-nutrient supplementation, according to Dr Jane Morgan a childhood nutritionist from Surrey. Dr Morgan told the meetings that iron deficiency anaemia was a significant problem in the toddler population of the UK. 'Around one in two toddlers have iron deficiency, defined as serum ferritin below 10mcg/l, and one in ten have iron deficiency anaemia defined as haemoglobin below 110g/l,' she said[14,15]. 'One in four Bangladeshi toddlers and one in five Indian toddlers have iron deficiency anaemia. 'So this is a serious problem[16].'

Signs and symptoms of iron deficiency anaemia include:

- Frequent infections - lowered immunity
- Lethargy/fatigue/weakness
- Poor appetite
- Irritability/poor behaviour
- Headache
- Developmental delay/mental retardation

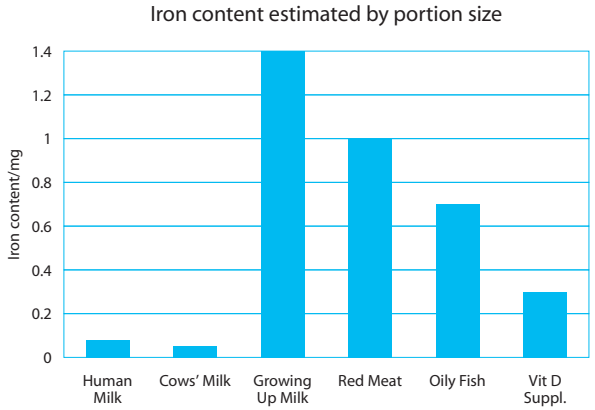
Children showing these signs should be advised to increase their intake of foods supplying iron (see fig 2), said Dr Morgan. Foods supplying 'available' iron include:

- Meat (red and white)
- Meat products
- Oily fish
- Oily fish products

In addition there were foods that supplied iron where the presence of dietary vitamin C enhanced its absorption. These included:

- Follow-on/growing up milks
- Bread
- Breakfast cereals
- Egg yolk
- Dark green vegetables

Fig 2. Foods containing iron



There was also convincing evidence that iron-fortified milks could decrease the risk of iron deficiency anaemia, said Dr Morgan[17]. Follow-on/growing up milks were designed to complement the solid foods in the diet, she said. They provided more of the 'at-risk' nutrients which were not adequately supplied in whole cows' milk. For instance 500ml of follow-on milk could provide 75 per cent of the iron and 100 per cent of the vitamin D needed by one-to-three year olds.

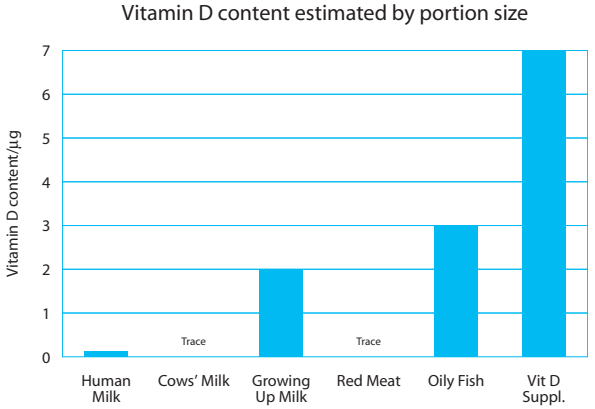
Vitamin D deficiency within the UK's Asian population was a problem, said Dr Morgan. 'Within the national population vitamin D deficiency is below one per cent, but if we look at the Asian subgroup then up to 30 per cent have vitamin D deficiency[6].' she said. Children of African and Middle Eastern ethnic origin were also at risk. Signs and symptoms of vitamin D deficiency included:

- Malabsorption of calcium leading to skeletal deformity - Rickets
- Weakening of bones

However, the condition was often asymptomatic.

Dr Morgan explained that the dietary sources of vitamin D were limited, including oily fish, dairy products, eggs and fortified products such as margarine, follow-on/growing up milks, breakfast cereals and bedtime drinks.

Fig 3. Foods containing vitamin D



For this reason all at-risk children should take vitamin D supplements, said Dr Morgan.

Dr Morgan went on to outline some practical guidelines on how to put together a healthy, balanced diet for toddlers. It was important to provide toddlers with a varied diet incorporating the different food groups, she said. These included:

- Breads, pasta or other starchy foods
- Fruit and vegetables
- Meat, eggs or fish
- Dairy products

It is inappropriate to give very young toddlers reduced-fat dairy products because their energy requirements are very high. Semi-skimmed milk can be introduced from the age of two years onwards but only if they are eating well in general.

Sugary and salty snacks should only be an occasional addition to the diet and should never become a regular part of the daily intake.

Dr Morgan outlined a meal planner to demonstrate what toddlers should be eating:

Breakfast
- Cereal with milk: whole cows'/growing up
- Toast with butter/margarine
- Half glass of diluted unsweetened pure fruit juice or milk: whole cows'/growing up

Mid morning Snack
- Crackers and cheese, fruit or wholemeal scone with butter/margarine

Lunch
- Chicken with mashed potatoes and vegetables
- Stewed fruit
- Glass of milk: whole cows'/growing up

Mid-afternoon snack
- Yoghurt and fresh fruit

Tea
- Tuna pasta bake/scrambled eggs on toast
- Fresh fruit

HOW TO COPE WITH DIFFICULT EATING BEHAVIOUR

DR GILLIAN HARRIS

Understanding children's normal development of eating behaviour can help health professionals manage those toddlers who become fussy eaters or extreme food refusers. Psychologist Dr Gillian Harris, from the University of Birmingham, explained how young children would normally develop their food preferences through exposure to different foods and on modelling their behaviour on others around them. 'Exposure is the key. The rule for getting your child to eat something is to eat it yourself and enjoy it,' said Dr Harris.

While a young infant will quite readily accept new foods, from the age of around 12 months, children progress through a period of suspicion and fear of new foods (neophobia) to exhibiting disgust responses and a fear of contamination, said Dr Harris.

It is important that both health professionals and parents understand that these stages are a normal part of the child's development because trying to force a child to eat against his or her will can often trigger food refusal, said Dr Harris.'

'When you get extreme food refusal behaviours it is often because parents are ignoring the fact that their child is no longer hungry, or does not like the foods that they are being offered. Parents who are anxious about growth or dietary intake may try to feed their child too much food and the extreme refusal on the child's part is because they are overriding signals of satiety.'

Another cause of fussy eating can be a lack of variety in the diet offered during the first year of life.

'The first year is the period of food acceptance; it takes fewer exposures to induce a preference in the first year than it does as the child gets older. Lack of experience at this stage may lead to poor acceptance of different textures later on.'

Children normally overcome their resistance to new foods, first through imitation (of adults, then of other children) and then through a process of generalisation in which the child will accept a food that is similar to something else that he or she likes.

Fig 4. The development of eating behaviour

3-5 months Window of acceptance for new tastes Preference a function of exposure Preference based on taste and smell	Ready acceptance
6-12 months Sensitive period for the introduction of foods with lumps, minced and chopped foods	
1 year Preference for food as a 'whole' - taste, texture and appearance Food recognised by appearance	Onset of neophobia
18 months to 3 years Rejection of new foods Rejection of foods previously eaten	Disgust response and contamination fears begin

'Generalisation is the establishment of visual prototypes that leads to the development of conceptual categories,' said Dr Harris. 'One thing that we found was that the most salient thing in helping a child make these generalisations was the colour of the food.'

This might be why it was so difficult to get children to try new fruits and vegetables, she suggested, as fruits and vegetables often differ in colour. Often the cause of a toddler's fussy eating lay not with the child, but with the parent, said Dr Harris.

Contributory factors included:

- Continuing milk feeds for too long
- Force feeding
- Worrying too much about dietary balance
- Worrying about their child choking
- Using less desirable foods as rewards
- Not offering desirable foods early enough

Dr Harris offered a series of dos and don'ts for parents faced with fussy eating or extreme food refusal from their toddlers (Fig 5 and 6).

Fig 5.

Simple faddy eating - Most likely to occur around 18 months	
DOs	DON'Ts
• Attend to the child's signals of satiety • Give frequent small meals • Take uneaten food away without comment • Give positive attention when the child is eating • Move from mash to 'bite and dissolve' foods as quickly as possible (from 7 months) • Encourage self feeding as soon as possible • Allow the child to make a mess when eating and enjoy the mealtime experience • Encourage the child in 'messy play' • Eat the foods you want your child to eat.	• Force feed, bribe or coax • Use one food as a reward for eating another • Give attention for not eating • Put disliked food on the plate next to liked food • Expect all children to eat as 'well' as one another • Above all don't panic - fussy children do grow out of it - although not until late childhood.

Fig 6.

Extreme food refusal (usually boys)	
DOs	DON'Ts
• Prioritise energy intake over dietary balance • Give only the foods that they will eat • Give short, but frequent eating opportunities • Encourage and promote messy play • Help the child to generalise their food choices. Look for other problems that might be worrying the parent - this type of food refusal occurs more frequently in children who are on the autistic spectrum.	• Force feed, bribe or coax • Insist on giving 'disgust' foods • Insist on child sitting at table while 'disgust' foods are eaten • Discuss child's eating behaviour within their hearing • Argue about child's eating behaviour at the meal table.

'Above all - don't worry - these children grow well and are usually very healthy', Dr Harris concluded.

HEALTH VISITORS AND MIDWIVES PLAY KEY ROLE IN GOVERNMENT'S NEW HEALTHY START PROGRAMME

JUDY MORE

Health visitors will play a key role in the government's new Healthy Start programme launched late last year to replace the Welfare Food Scheme. This new initiative aims to support breast feeding and provide fresh fruit, vegetables, milk, infant formula milk and vitamins to low income families.

Judy More, a freelance paediatric dietitian from London, told the meetings that the scheme offered the opportunity to tackle current nutrition problems such as iron deficiency anaemia, rickets, neural tube defects and to support nutritionally vulnerable pregnant teenagers.

Healthy Start is available to all pregnant women and families with children under the age of four years who are on income support, income-based Jobseeker's Allowance or Child Tax Credit with an income below £14,155 pa. It is also intended to benefit pregnant teenagers under 18.

Under the scheme, pregnant women and those with children aged between one and four years are entitled to one voucher per week worth £2.80. Babies aged 0 to 12 months (or 0-12 months post expected date of delivery (EDD) for pre-terms) are entitled to two vouchers per week.

The vouchers may be used to buy:

- Liquid cows' milk
- Cows' milk based infant formula suitable from birth
- Fresh fruit
- Fresh vegetables

Ms More stressed that healthcare professionals will play a vital role in promoting the scheme to those families entitled to the vouchers. Healthy Start will also provide vitamin supplements free to all beneficiaries. Infants and children can claim one pack every eight weeks containing vitamins A, C and D. Pregnant and breastfeeding women can claim packs containing vitamins C, D and folic acid. It is the responsibility of each PCT to order the vitamins from NHS Supply Chain and make them available to Healthy Start beneficiaries. Non-beneficiaries can purchase them from PCTs.

To join Healthy Start those eligible should fill in an application form, ask a healthcare professional to sign it and send it in by post. The vouchers arrive every four weeks by post. More information on Healthy Start is available from: www.healthystart.nhs.uk

KEY LEARNING POINTS

- Optimal nutrition is vital for the healthy growth and development of toddlers, but has been under researched compared to other age groups
- The most common nutritional problems of toddlers in the UK are: iron deficiency anaemia, dental caries, obesity, faltering growth, constipation and rickets
- Virtually all toddlers are at risk of nutritional problems, whether affluent or poor
- In the UK children from Asian, African and Middle Eastern populations are more at risk of developing vitamin D deficiency or rickets
- Vitamin A & D supplementation is recommended for toddlers in the UK to prevent rickets and ensure normal growth and development
- Iron deficiency in toddlers is associated with anaemia and in the long term, may impair cognitive development if untreated. It is an underestimated and under treated problem
- Simple dietary measures such as eating meat, oily fish and other iron rich foods can prevent iron deficiency
- Constipation is a common problem in childhood and is usually due to diets deficient in fibre and / or fluids
- Food refusal is a normal phase of toddler development which toddlers pass through
- Children need to be exposed to the foods that their parents want them to eat; the earlier the better
- Encouraging the family to eat together can be an important part of toddlers' learning to like new foods by copying other children and adults
- With extreme food refusers, parents should make energy intake the main priority
- Healthy Start is a new government initiative that replaces the Welfare Food Scheme and healthcare professionals should advise low income families about the potential benefits it can give them
- Under Healthy Start healthcare professionals need to give appropriate health and lifestyle advice about diet in pregnancy, infant feeding, weaning and the benefits of milk, fresh fruit and vegetables and vitamin supplements.

YOU CAN NOW REGISTER FOR THE 2007 STUDY DAYS AT: www.infantandtoddlerforum.org

UNDERSTANDING AND PROMOTING HEALTHY GROWTH AND DEVELOPMENT IN TODDLERS

London	Thursday September 27th 2007
Birmingham	Wednesday November 28th 2007
Leeds	Thursday December 13th 2007

General Information

- The Infant & Toddler Forum brings together representatives from paediatrics, neonatology, health visiting, dietetics and child psychology who share a common professional interest in infant and child health nutrition
- A goal of the Forum is to improve the access of healthcare professionals to reliable, evidence-based nutritional information relevant to their practice, which will equip them to advise and support the parents of infants and young children
- The Forum is supported by an educational grant from Danone UK
- If you would like to register for the toddler education series contact www.infantandtoddlerforum.org

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