

# Nutrition Guidelines for the Under Fives

*Guidelines for managers of under fives facilities, catering staff and others involved in feeding young children in education and social work services, day care, residential care and hospitals*



## 2001 NHS Tayside, Health Promotion Department

Designed and illustrated by:

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## Foreword

What could be more important than a healthy diet for young children? There is a huge amount of advice on nutrition available to people working with children from a wide range of sources, but much of this advice is conflicting and it is hard for people to know which advice they should be following.

These guidelines solve that problem. They have been put together by a working group in Tayside, based on the very best evidence and advice from the literature and experts throughout the country. They have been written in a way that is both concise, but also easy to understand by people who are not themselves experts in nutrition. The writers have a very clear understanding of the real challenges there are in providing healthy food for children, and they are to be congratulated on producing a document which will be immensely useful to all who use it. The guidelines themselves have been endorsed by all of the local organisations which have an interest in child nutrition, so we can be confident that the recommendations will be implemented - but we will of course monitor this.

Nutrition is a major priority for all of these partner organisations in Tayside, and I hope that we will see further guidelines written for other vulnerable groups in the future. In the meantime we do hope that you find these helpful, and that you will let us know of any alterations or improvements you would like to see in future editions, as we intend to revise these guidelines periodically.

Dr Drew Walker,  
Director of Public Health, Tayside.

I fully endorse Dr Walker's comments and congratulate Angus Health for All, Healthy Dundee and Perth and Kinross Health for All on the production of these excellent practical guidelines.

Mrs Caroline Selkirk,  
Commissioner for Children's Health,  
Tayside.

## Finding your way around the guidelines

We are suggesting that certain parts of this document will be of more interest than others to each group of carers. Check below.

Who are you?	Read part 1	Read part 2	Read part 3
Nursery teachers	✓	✓	✓
Nursery nurses	✓	✓	✓
Childminders	✓	✓	
Playgroup leaders	✓	✓	
NHS nursing staff	✓	✓	
NHS medical staff	✓	✓	
Health Visitors	✓	✓	
Dietitians	✓	✓	✓
Catering staff	✓		✓
Centre managers	✓	✓	✓
Nursery owners/managers	✓	✓	✓

## Why nutritional guidelines are needed

Healthy eating and physical activity are essential for growth and development in childhood. To help children develop healthy eating patterns from an early age, it is important that the food and eating patterns to which they are exposed - both at home and outside the home - are those which promote positive attitudes to good nutrition.

Angus Health for All, Healthy Dundee and Perth & Kinross Health for All have included the Scottish Diet Action Plan in their health strategies. The recommendations have also been endorsed by Tayside Primary Care NHS Trust in their 5-year Health Promotion Plan. We hope that these recommendations will help all our carers to implement the plan.

In 1993 the Scottish Diet report was published by the Scottish Office. They reported that children's "dietary problems begin during the mother's pregnancy; Scottish women have a low vegetable intake and have relatively low folic acid intakes before and after conception. The susceptible mothers are particularly prone to having babies with neural tube defects and Scottish women also have a high rate of low birthweight babies. A special survey now reveals drastically low rates of breastfeeding in Scotland; breast milk provides not only immunological protection against a plethora of problems, including childhood diabetes, but also contains specific essential long chain fats required for brain development. In parts of Scotland less than 10% of mothers are breastfeeding one day after delivery. Scottish infants are weaned too soon, introduced to cereals and cow's milk too early and transferred on to an inappropriate diet within the first two years of life as they acquire their family's unhealthy eating patterns. These dietary practices may explain the high rates of iron deficiency in infants and young children which is a cause for concern in relation to brain development as well as anaemia. The high prevalence of dental decay in Scotland's children is also not surprising given their poor intake of fluoride and frequent consumption of sugary drinks and foods" (Scottish Office, 1993, P1).

The Report also set targets for us to achieve by year 2005, including:

- All children over 2 years of age should be eating 3-4 portions of fruit and vegetables per day.
- Whole grain or granary bread and cereals should be consumed twice daily
- 75% of children over 2 years should consume semi-skimmed milk.
- 75% of children should be eating fish twice weekly
- 75% of children should be eating meat products less than twice weekly.
- Confectionery consumption in children should have fallen by a half.



In 1996 an action plan was published to ensure that all the report's recommendations would be implemented. The Scottish Diet Action Plan (Scottish Office 1996) makes the following recommendations, among many others:

- Health Boards should continue to encourage the achievement of local breastfeeding targets and to promote with hospitals the breastfeeding criteria specified by WHO and UNICEF as appropriate to a "Baby Friendly Hospital".
- Health Boards and local authorities should ensure that health professionals and residential and day care staff with care responsibilities for children under five have a working knowledge of the dietary and nutritional needs of young children and that they put such knowledge into practical effect. In this context local authorities should ensure that, in relation to their care responsibilities, the standards and competencies for SVQ in care recognise this requirement.
- Health Boards should encourage health professionals who work with small children, in particular health visitors, to provide dietary and nutritional advice and guidance to the parents of children under five years of age. Local authorities should similarly encourage staff in nurseries and playgroups and childminders.
- Special initiatives to encourage children under five years of age to eat healthily should be explored by local authorities, including the value of employing the services of home economists and / or dietitians to provide advice and support on diet and nutritional matters to families with young children.



# Part 1 - Core Information

## Infant nutrition (up to one year)

Children in the first year of life are following individual feeding and sleeping patterns. It is recommended that these are not disrupted but wherever possible integrated into the carer's timetable for the day.



## Breast v. bottle milk

- Breast milk is the best food for infants. Carers should support breastfeeding mothers and encourage them to continue providing breast milk. Mothers who are breastfeeding and who may wish to feed their baby in the childcare setting should have warm, private facilities made available to them. Other mothers will usually provide expressed breast milk in a bottle for the carer to give to the infant. Breast fed babies should not be given any other milks or drinks, except cooled boiled water, without the permission of the baby's mother, as this can interfere with successful breastfeeding.
- If expressed breast milk is not provided in a bottle, infants should be given an appropriate infant milk or formula in a bottle. This should be made up with cooled boiled water according to the manufacturers' instructions on the package.
- Bottled drinking water may be used to make up feeds in situations where the water may be unsafe or difficult to obtain, for example when travelling. Only certain bottled waters are suitable. They must be still, not carbonated, and have a sodium (Na) level of less than 150mg/litre. (Scottish Executive, 2001). The label on the bottle should give this information. Bottled water must still be boiled and then cooled before making up the feed.
- Babies who are bottle fed should be held and have warm physical contact with an alternative adult while being fed. Babies should be fed by the same person at each feed.
- Babies should never be left propped up with bottles, as this is both dangerous and inappropriate to babies' emotional needs.
- From 6 months of age, infants should be introduced to drinking from a cup or a beaker, and from the age of 12 months, they should be discouraged from drinking from a bottle.
- Babies receive all their nutritional requirements from milk up to 4 - 6 months of age. Cow's milk is not suitable as a main drink for infants under 12 months. However, from 4 - 6 months, whole cow's milk can be used as an ingredient in weaning foods - for example to moisten mashed potato.
- No drinks other than breast or infant milk, or cooled boiled water are necessary. However we know that people will continue to use flavoured drinks in the mistaken belief that infants need them. If drinks other than milk or water are ever given - for example baby juices or baby drinks - these should be diluted with at least 8 parts water and should be confined to mealtimes. Because of the risk to dental health, children over 6 months should never be given these drinks in a feeding bottle. Water given to children under 9 months, either directly or in a diluted drink should be boiled and cooled first.

Carers and parents should be reminded regularly that infants do not need any other fluids than an appropriate milk and cooled, boiled water.

- Adult-type soft drinks or 'diet' drinks, tea and coffee are never recommended for infants.

Parents leaflets about **Breastfeeding and Bottle feeding** are available from your Health Visitor or from the Health Promotion Centre

## **Weaning (from 4-6 months)**

A suggested feeding guide is provided in the booklet "**Weaning on to family foods**" available from health visitors or from the Health Promotion Centre. More detailed information is also available in Thompson J M (ed) (1998) **Nutritional requirements of infants and young children: practical requirements**. Blackwell, Oxford.



Weaning should not begin before four months of age. Up to four months of age babies receive all their nutritional requirements from breast milk, infant milk or formula. No food should ever be added to a baby's bottle.

First solids should be pureed vegetables or fruits, or rice (use flaked rice as it is softer when cooked). It is important to offer very small amounts of a variety of flavours and pureed or soft textures at first.

Pureed cooked meat, fish and pulses (for example peas, beans and lentils) are suitable foods to begin to include in the diet a couple of weeks after weaning has begun. Between 6 and 12 months, food should be given which allows the infant to learn to chew and accept a wide variety of food textures. The texture can very gradually be changed after six months, from pureed to mashed, then to chopped up small. Eggs can also be introduced from 6 months of age. Eggs given to babies or toddlers should always be cooked until both the yolk and the white are solid.

Naturally sweet fruits (such as bananas) can be used to sweeten foods rather than adding sugar. Sugars, honey and artificial sweeteners should not be added to foods for infants.

Foods containing gluten (such as bread, porridge, pasta or chapatis) should not be given to infants under 6 months.

Salt should not be added to food for infants.

Commercial baby foods are available for appropriate ages and stages. These are particularly useful for days out and when travelling. If using commercial weaning foods, follow the manufacturer's instructions carefully.

## Normal fluid requirements

Age	Fluid requirements (metric)	Fluid requirements (imperial)
0 – 6 months	150 mls per kg of body weight per day	2.5 fl.oz. per lb. of body weight per day
7 – 12 months	120 mls/kg/day	2 fl.oz/lb/day

## Which milks are suitable to give infants as a main drink?

(Infants = children under 12 months.)

<b>Breast milk</b>	<b>From birth onwards</b> Breast milk provides the best source of nourishment for the early months of life.
<b>Infant milk</b>	<b>Birth to 12 months</b> Cow's milk specially modified for infants is labelled as such. Follow the instructions given on the packet or tin when choosing and preparing infant formula.
<b>Soya infant formula</b>	<b>Birth to 5 years</b> Not suitable for general use. Developed for infants with proven lactose intolerance or cow's milk protein intolerance. May be given from birth, if advised by a doctor. These formulae contain sugar in the form of glucose which is more harmful to teeth than the lactose in infant milk based on cow's milk. Care should be taken that infants are not left with bottles for long periods and children should be given soya infant formula in cups, preferably with meals.
<b>Follow-on infant milk</b>	<b>Suitable from 6 months onwards</b> No reason to change to this from infant milk or formula if under 12 months..
<b>Whole cow's milk*</b>	<b>Not suitable for infants.</b> Can be used in cooking but not as a main drink until 12 months of age.
<b>Semi-skimmed cow's milk*</b>	<b>Not suitable for infants</b>
<b>Skimmed cow's milk*</b>	<b>Not suitable for infants</b>
<b>Evaporated milk</b>	<b>Not suitable for infants</b>
<b>Condensed milk</b>	<b>Not suitable for infants</b>
<b>Soya drinks (other than soya infant formula)</b>	<b>Not suitable for infants</b>
<b>Goat's milk*</b>	<b>Not suitable for infants unless recommended by a paediatrician.</b>
<b>Oat drinks and rice drinks</b>	<b>Not suitable for infants</b>

\* Milks used for under fives must always be pasteurised.

## Food hygiene and safety issues for infants

Expressed breast milk provided for babies in child care should be clearly labelled with the child's name and the date, stored in the refrigerator (between 0°C and 5°C) and only used for that child. Any expressed milk left over at the end of the day should be returned to the parent or guardian. A leaflet "**Guidelines for expressing, freezing, storing and thawing breast milk**" is available from health visitors and the Health Promotion Centre.

Parents of children who take infant milk or formula should be encouraged to prepare their child's own feeds. Feeds should be labelled with the child's name and the time and the day the feed was made, and should be stored in a refrigerator. Any infant milk or formula left over at the end of the day should be returned to the parent or guardian. A leaflet "**Bottle Feeding**" is available from health visitors or the Health Promotion Centre.

Check fridge temperatures daily and keep all bottles of breast and infant milk in the main body of the fridge, not in the fridge door.

If the carer is making up infant milk or formula, it is preferable if it can be made in a separate milk preparation area. Feeds must also be made up according to the instructions on the pack.

Carers should take particular care if milk is heated in bottles. Ideally a bottle warmer should be used. If the bottle is heated by standing it in hot water, this should be done in an area which children do not have access to. A microwave should not be used to heat milk, as the milk can become very hot even though the container still feels only warm.

Bottles and teats for infants under 9 months of age should be thoroughly cleaned and sterilised. The teats of bottles for older infants should be thoroughly cleaned.

If dummies or comforters are used they should be thoroughly cleaned and sterilised for infants under 9 months, and thoroughly cleaned for older infants. These recommendations also apply to dummies or comforters which are dropped.

Carers also need to be aware of food safety issues such as storage of weaning foods and leftover food, and thorough cooking or heating of foods.

If the carer is serving food from a can or jar and the child is unlikely to eat all the contents, a portion should be spooned into a separate dish or container before serving it to the child. Any unused portions should be stored according to the manufacturer's instructions. (If there are no instructions, the safest option is to throw the unused portion away.) If food is served straight from the jar and the child does not finish it, the remainder should be thrown away.

However, any uneaten food which parents have brought in should be returned to them at the end of the day.

## Nutrition for children aged 1 to 5 years

After weaning on to a variety of food tastes, children should be encouraged to eat a variety of foods from each of the four main food groups every day.

The four main food groups are:

**1. Fruit and vegetables.**

Number of servings per day:

2 vegetables and 2 fruits

Useful as snacks. Try some raw vegetables.

Offer vegetable soups.

Offer a wide variety including fresh, frozen, canned or dried.

**2. Bread, cereals and potatoes**

Number of servings per day:

4 or more

Try to include some at each meal.

Also useful as snacks

Include some wholemeal and whole grain varieties.

**3. Milk and dairy foods**

Number of servings per day: 3

Children aged one to five need about one pint of whole milk a day.

Drinking more than a pint may spoil the appetite for other foods.

Semi-skimmed milk may be given from the age of 2 years provided the child is eating a wide variety of foods and is growing and gaining weight normally. Cheese, yoghurt, fromage frais and milk puddings are useful alternatives.

**4. Meat, fish and alternatives**

Number of servings per day: 2

Encourage children to try different foods from this group, e.g. beef, pork, lamb, chicken, turkey, fish, eggs, baked beans, lentils and other types of pulses. (Nuts should not be given to children under five because of the risk of choking).



The fifth food group, the fats and sugars, should be restricted to special occasion foods only.

### What is a serving?

This depends on the age of the child and the stage they have reached. It is better to give a little of a food and wait for the child to reach (or ask) for more, than to give them too much. This also saves waste. The more foods a child tries, the more likely they are to enjoy a varied diet, but don't expect them to eat a full portion at every meal.

A varied diet is associated with better health as it is more likely to contain all the nutrients the body needs.

### Specific nutrients for consideration

Vitamin C is important in maintaining good health and has a role in helping the body to absorb iron if both nutrients are present in the same meal. Under-5s should be encouraged to eat foods containing vitamin C - for example most fruit and fruit juices, potatoes, broccoli, and other green vegetables, tomatoes and peppers. Eating four portions of fruit and vegetables a day will ensure an adequate vitamin C intake.



It is recommended that children up to the age of 5 years should receive vitamin drops containing vitamins A, C and D. This is the responsibility of the parents or guardians but carers may wish to remind parents of the importance of giving vitamin drops to under-5s, and to provide information about where to find out more about them.

They are normally available from the health centre or baby clinic, or from Child & Family centres. Vitamin drops are available free to families receiving Income Support or income-based Jobseeker's Allowance. Parents can get more information from their Health Visitor.

### Sugar

The intakes of the type of sugars in the diet which most contribute to tooth decay are higher than recommended among the under-5s. If children have sugary foods, these should be given with meals rather than as snacks between meals. Further information about dental health can be found on page 24. Children do not need sugary foods such as sweets, chocolate, soft drinks or honey for energy. Starchy foods - such as potatoes, bread, rice, pasta and yam - are better sources of energy as these foods contain other important nutrients too.



### Energy

It is important that the under-5s get enough energy (calories) for growth and development. While adults and children over 5 are encouraged to eat a diet that is high in starchy foods and low in fat, younger children on this sort of diet may not have the appetite to eat enough food to provide all the nutrients they need.

### Fat

The current advice for adults and children over 5 years is to consume a diet in which about 35% of their daily energy needs are provided by the fat in food and added to food. The fat intake of children under 2 should not be restricted as the under-2s need foods which are energy-dense and nutrient-dense - that is, foods which pack a lot of calories and other nutrients into a small amount of food.

## Iron

The iron intake of children under 5 is sometimes lower than currently recommended and there is some evidence to suggest that low iron status occurs in this age group. Under-5s should therefore eat a diet that is high in iron-rich food such as meat, poultry and fish as well as fruits and vegetables. (Meat and meat dishes are also a good source of zinc).

Iron in the diet of children in childcare should be enhanced to provide 80% of the recommended amount in full day care. Iron will be particularly provided by main meals. Drinks (including milk) and many snacks are likely to be low in iron, so it is important that children receive the bulk of their iron from their meals. A leaflet is available from health visitors or the Health Promotion Centre - **"Is your child getting enough iron? Advice for parents of children aged one to five"**

Care needs to be taken when menu planning for children who do not eat meat. They should have a varied diet containing foods such as cereals, pulses (peas, beans and lentils), vegetables and fruits to ensure they obtain sufficient iron. For more information about vegetarian diets see page 14.

## Drinks for 1 to 5 year olds

Encourage children to drink water if they are thirsty. Water quenches thirst, does not spoil the appetite, and does not damage teeth. Tap water is preferable as some bottled drinking waters have a high content of salts and may not be suitable for regular use. Bottled drinking water may be used in situations where the water may be unsafe or difficult to obtain, for example when travelling.



## Normal fluid requirements

Age	Fluid requirements (metric)	Fluid requirements (imperial)
1 – 3 years	95 mls per kg of body weight per day	1.5 fl.oz per lb of body weight per day
4 – 6 years	85 mls/kg/day	1.25 fl.oz/lb/day



Promote milk as a drink. The following chart explains which milks are suitable for this age group. It is strongly recommended that child care providers should not offer any drinks other than water and milk.

Diluted pure fruit juice is a useful source of vitamin C. At home, children may have **one** glass of pure fruit juice diluted with water per day, with their main meal or with breakfast as this may also help the body to absorb iron. However it should not be given as a regular drink through the day as the sugar content is too high.

Children who bring their own drinks to childcare should be encouraged to bring a plastic flask or a lidded plastic cup containing preferably water or milk. Otherwise they should bring an appropriately diluted drink.

If children are given soft drinks containing the intense sweetener saccharin, these should be diluted more than they would be for an adult or older child - for example. 1 part squash to at least 8 parts water.

Discourage children from having fizzy drinks and squashes (including fruit squashes/diluting juice) both diet and non-diet, as these can erode tooth enamel and contribute to tooth decay. Also they provide little in the way of nutrients, and children who drink them frequently may have less appetite to eat well at mealtimes.

Many ready-to-drink cartons of squashes, fruit drinks and fruit juices have a high sugar content and cannot be diluted if they are drunk straight from the pack.

Tea and coffee are not suitable drinks for under-5s as they contain tannic acid, which interferes with iron absorption.

## Which milks are suitable to give to children aged one to five years as a main drink?

<b>Breast milk</b>	<b>From birth onwards</b> Breast milk may continue to be given until mother and baby choose to stop feeding.
<b>Soya infant formula</b>	<b>Birth to 5 years</b> Not suitable for general use. Developed for infants with proven lactose intolerance or cow's milk protein intolerance. These formulae contain sugar in the form of glucose which is more harmful to teeth than the lactose in infant milk based on cow's milk. Children should be given soya infant formula in cups, preferably with meals.
<b>Whole cow's milk*</b>	<b>Suitable for most children from 12 months of age</b>
<b>Semi-skimmed cow's milk*</b>	<b>Not suitable for children under 2 years. Suitable from 2 years</b> , provided that the child is a good eater and has a varied diet. In group settings we recommend the use of whole milk from 1 to 5 years.
<b>Skimmed cow's milk*</b>	<b>Not suitable for children under 5 years</b>
<b>Goat's / Ewe's milk*</b>	<b>Not suitable as nutritionally incomplete.</b> Not known to be less allergenic than cow's milk. If pasteurised may be given after 1 year of age if giving appropriate vitamin and mineral supplementation (under supervision of doctor / state registered dietitian)
<b>Oat drinks and rice drinks</b>	<b>Not suitable for children as nutritionally inadequate</b>
<b>Soya drinks</b> (other than soya infant formula)	<b>Not suitable for children under 2 years</b> as low in energy and nutritionally incomplete.  If given after age of 2 years, make sure the drink is calcium-fortified. Drinks should be given in cups at mealtimes, because of the sugars content.
<b>Evaporated milk</b>	<b>Skimmed milk varieties are not suitable for children</b>
<b>Condensed milk</b>	<b>Not suitable for children</b>

\*Milks given to under-5s must be pasteurised.

## **Vegetarian**

A vegetarian diet which provides a variety of cereal foods, vegetables, pulses, fruits and dairy products is likely to supply sufficient nutrients.

It is possible for a child to get the energy and nutrients he or she needs from a vegetarian diet, but a little extra care is needed, for example, picking meat out of a dish is not acceptable. The vegetarian dish should be prepared first and the meat added later for other children.

Nutrient-rich foods such as milk, cheese and eggs can provide protein, vitamin A, calcium and zinc but obtaining enough iron from a meat-free diet may be more difficult. If the child eats fish, iron can be found in oily fish such as sardines, pilchards and tuna. Iron is also found in pulses such as beans and lentils, in dried fruit and in breakfast cereals. The iron is more easily absorbed if the child has foods or drinks that are high in vitamin C.

## **Vegan diets**

Parents of vegan children must take their own responsibility for their children's diets and can get advice from The Vegetarian Society or The Vegan Society.

Vegetarian Society  
Parkdale  
Dunham Road  
Altrincham  
Cheshire WA14 4QG  
Tel: 0161 9280793  
Web: [www.veg.org/veg/org/vegsocuk](http://www.veg.org/veg/org/vegsocuk)

Vegan Society  
47 Highland Road  
Leatherhead  
Surrey  
Web: [www.vegansociety.com](http://www.vegansociety.com)

## Ethnic Food Choices

This is a guide to some of the differences in food choice commonly observed by those from different religious and cultural groups. It is important to emphasise that there may be individual differences in food choices between families, and those providing childcare should not make assumptions about anyone's food preferences. It is important to find out about each child from his or her parent or guardian.

'Some' means that some people within a religious group would find these foods acceptable.

	Jewish	Hindu <sup>1</sup>	Sikh <sup>1</sup>	Muslim	Buddhist	Rastafarian <sup>2</sup>
Eggs	No blood spots	Some	Yes	Yes	Some	Some
Milk/yoghurt	Not with meat	Yes	Yes	Yes	Yes	Some
Cheese	Not with meat	Some	Some	Possibly	Yes	Some
Chicken	Kosher	Some	Some	Halal	No	Some
Mutton/lamb	Kosher	Some	Yes	Halal	No	Some
Beef & beef product	Kosher	No	No	Halal	No	Some
Pork & pork products	No	No	Rarely	No	No	No
Fish	With fins & scales	With fins & scales	Some	Some	Some	Yes
Shellfish	No	Some	Some	Some	No	No
Butter/ghee	Kosher	Some	Some	Some	No	Some
Lard	No	No	No	No	No	No
Cereal foods	Yes	Yes	Yes	Yes	Yes	Yes
Nuts/pulses	Yes	Yes	Yes	Yes	Yes	Yes
Fruits <sup>3</sup> /vegetables	Yes	Yes	Yes	Yes	Yes	Yes
Fasting <sup>4</sup>	Yes	Yes	Yes	Yes	Yes	Yes

1. Strict Hindus and Sikhs will not eat eggs, meat, fish, and some fats
2. Some Rastafarians are vegan.
3. Jains have restrictions on some vegetable foods. Check with the individuals.
4. Fasting is unlikely to apply to young children.

(Caroline Walker Trust, 1998)

## **Special diets**

Parents of children who need a special or therapeutic diet should have been referred to a State Registered Dietitian for dietary advice and should be asked to produce a letter of support from their dietitian.

Allergic reactions can be very serious. There should be a careful plan for choosing a safe and nutritious diet for any individual child with a true allergy.

## **Food intolerance**

While many parents believe that their children are sensitive to certain foods, the true incidence is likely to be very much lower than reported. Parents requesting special diets for their children because of food allergy should be encouraged to seek advice from a doctor or State Registered Dietitian if they have not already done so. It is unwise to restrict food choice among young children without appropriate help and advice.

However, it is important to note that a Department of Health Expert Panel recommends that, in children with a family history of atopic disease (asthma, eczema, hay fever or food allergy), peanuts and peanut products should be avoided until the child is 3 years old. Whole nut products should not be given to children under the age of five because of the risk of choking.

## **Children with special needs and disabilities**

When planning food provision and menus, carers need to consider children who have special needs or disabilities. Some children may have particular dietary requirements or may need specific help with eating, both of which are outside the scope of this report. Advice can be obtained from a State Registered Dietitian. Parents or guardians and carers may also find it useful to contact support groups associated with the child's particular disability or need.

## **Worries about overweight in children**

Parents or guardians, who are concerned about their child being, or becoming overweight, should encourage and enable the child to increase the amount of exercise he or she does each day. This can include activities done as part of the daily routine such as walking and climbing stairs, as well as physically active play such as running, ball games or playing in the playground.

Children are unlikely to become overweight if they eat, while in childcare, the amount and types of food recommended in this booklet and if they follow the general advice it gives about healthy eating and physical activity. However, if they eat a significant amount of other foods as 'extras', particularly if these are high in calories but contain few other nutrients (for example sweets or soft drinks), then a child may take in more calories than they use up in their daily activities.

Restricting food intake among children (i.e. giving them less to eat than they would choose, or using 'low calorie' foods that are designed for adults) may prevent children

from getting all the nutrients they need for normal growth and development. If parents or guardians have concerns about their child's weight they should ask their GP or Health Visitor for advice. The GP might refer the family to a State Registered Dietitian. Further information is also available from the children's section of the following website: [www.hebs.scot.nhs.uk/learningcentre/weightmanagement](http://www.hebs.scot.nhs.uk/learningcentre/weightmanagement)

## Menu planning

Planning menus ahead will ensure that the best food choices are made and that meals are varied. When choosing meals to include in menus, remember that:

- A variety of foods should be served throughout the menu cycle.
- It is recommended that everyone include more fruit and vegetables in their diet. Including fruit and vegetables at meals and as snacks will help to achieve this. Raw and cooked vegetables and fruit, diluted fruit juice and dried fruit all contribute to daily fruit and vegetable portions.
- Children need starchy foods for energy. These include bread, pasta, rice, potatoes, yam and sweet potato.
- Choose combinations of colours to make the food attractive. Three or four defined areas of colour look good on a plate. A combination of different textures increases appeal. Children will appreciate crisp, crunchy, chewy, smooth and soft foods.
- Taste should be varied but meals containing too many different or new flavours may not be acceptable to children.
- Some finger foods as well as foods which require cutlery allow variation at meal times.

## Part 2 - Caring for Children Under Five



A real partnership between parents or guardians and carers should be fostered. This could include:

- making menus available to parents
- giving parents adequate notice of any changes to meals, food choice or any other aspect of food provision, and allowing them to comment on and discuss the changes before they are introduced.
- Carers should give parents or guardians clear information each day about what food has been eaten and if their child has eaten well. Even older children may not be accurate in reporting what they have eaten.

Carers should seek advice from parents and guardians if they are serving food which the carers themselves are not familiar with.

Such food should not only contain the right ingredients but should look and taste right too.

### Organisation of mealtimes and snacks

#### Timing of meals and snacks

Breakfast is a particularly important meal and fortified breakfast cereals can make an important contribution to daily vitamin and mineral intakes. Parents and guardians should work together with carers to ensure that children have breakfast, either at home or in childcare.

Children need to eat regularly and it is recommended that children are offered something to eat at least every three hours.

Children need nutritious snacks between meals. The best snacks are those which are low in added sugar. A variety of snacks should be offered including fruit, vegetables and any type of bread such as sandwiches, teacakes or fruit buns.

### Ideas for nutritious snacks

- Dairy foods such as cheese or plain yoghurt with added fruit
- Fresh fruit
- Dried fruit such as raisins or dried apricots
- Raw vegetables such as peeled carrots, sweet pepper, tomato, cucumber or celery (all well washed)
- Home-made plain popcorn
- Low sugar breakfast cereals



- Plain biscuits such as rich tea, oatcakes, breadsticks, cream crackers, matzos, rice waffles, melba toast or crispbread
- Any type of bread including fruit bread, crumpets, teacakes, muffins, fruit buns, malt loaf, bagels, pitta bread or sandwiches. Suitable fillings for sandwiches might be cheese, yeast extract, banana, salad or combinations of these.

## **Creating the right atmosphere and encouraging social skills**

Meals can be times of pleasant social sharing. It is good practice for carers to sit with children during meals. It is important that what the carer eats and drinks in front of the children provides a good role model for healthy eating.

Mealtimes offer an opportunity to extend children's social and language skills. Children can learn from the carer about table manners, and can practise their speaking and listening skills. To encourage this, distractions such as television are best avoided during mealtimes.

Children aged 2 - 5 years should be allowed to serve themselves during snack time as this may encourage them to try different kinds of foods. Finger foods of all kinds, particularly fruit and vegetables, will encourage children under 2 years of age to feed themselves and try new foods. Child-sized utensils, crockery, tables and chairs may also make it easier for children to serve themselves and learn to eat independently.

It is important to ensure that a variety of foods are offered. Encourage children to try all the food offered to them. The behavioural norms and expectations of specific cultures should be respected.

Some children may eat slowly. It is important to ensure that all children have enough time to eat. Do not hurry children as they eat.

## **Dealing with food refusal**

If a child refuses a food even after gentle encouragement to eat, remove the food without making a fuss or passing judgement. It is useful to encourage children to try different foods. Words of praise and encouragement to try foods and eat a variety of foods may help some children at mealtimes. It may be useful to adopt the approach that a food refused is 'not liked today'. Food fads often do not last more than a couple of weeks and children may, at another time, accept a food that was previously rejected

While it can be distressing for carers (and parents or guardians) to have food they have prepared rejected, keeping your own attitude to eating friendly and relaxed will help children to feel that eating is a pleasurable way to satisfy hunger rather than a battleground.

A child's opinion about what they like and dislike should be respected and it is better not to 'disguise' foods that they have rejected. Changing the form a food is given in however may make a food more acceptable. For example, a child might refuse cooked carrots but enjoy raw ones or may refuse pasta coated in sauce but prefer the pasta and sauce served separately.

The following ideas may help you to cope:

- Never force children to eat, and do not bribe or threaten - this will probably make the situation worse.
- Although it is an extremely difficult thing to do, try not to show anxiety or annoyance at mealtimes. If a food is not eaten, take the plate away without comment. Ignoring the problem may make it go away.
- Show children that you are pleased when they do eat. Reward them with your attention, e.g. smiling and playing with them.
- Have regular mealtimes (at home and in child care), and try to make them enjoyable social occasions. Sit at a table and use brightly coloured and attractive plates and cups.
- Many children are easily distracted. Try to eat in a quiet relaxed environment, without the television on.
- Children may well be slow to eat, but do not rush a meal. However try not to let them drag on for more than about 30 minutes.
- Offer regular meals and between meal snacks. However, do try to avoid too many crisps, cakes and biscuits and fizzy drinks.
- Give small portions of food and offer more if the meal is completed. Do not take food away and offer something different if the first meal is refused.
- Avoid giving drinks or snacks immediately before a meal.
- Allow the child to play with food and do not worry if they make a mess.
- Do not give chocolate, sweets or biscuits if a meal is refused as the child is then filling up on the wrong type of foods.
- Don't let children rule what is offered at mealtimes. But don't at this stage offer too many new or unfamiliar foods.
- Stop feeding the child if they indicate that they have had enough. This may be by turning their head away, screaming, spitting food out repeatedly or holding food in their mouth and refusing to swallow.

If the problem shows no sign of improving, or if you are worried that the child is losing weight, the parent or guardian should contact their Health Visitor who may be able to offer further advice.

## **Packed lunches - nurseries and playgroups without lunch facilities**

Children attending childminders, playgroups or some nurseries may also need a packed lunch, or even just a family day out may necessitate carrying some food.

Many of these ideas would be useful for nursery and playgroup snacks as well.



A balanced packed lunch contains a variety of foods. Include foods from the main food groups (see page 9) such as:

- Cheese sandwich (bread and dairy)
- yoghurt (dairy)
- grapes (fruit and vegetable)
- drinks



### Tips for preparing packed lunches

- Wrap sandwiches individually, or use a small easily opened sandwich sized container. This is easier for children to handle.
- Use an air-tight container.
- Some sandwiches (depending on filling) can be made in advance and frozen.
- Avoid crumbly food e.g. biscuits.
- Make sandwiches more interesting by using biscuit cutters to cut out bread.
- Pack food items separately, children can then choose which order they want to eat their lunch e.g. chopped vegetables, tuna dip, chopped fruit and crusty bread



### Packed lunch ideas

- Pinwheel sandwiches are a change from the usual
- Quiche or pizza
- Miniature cheeses
- Pasta salad - use different coloured pasta and pasta shapes. Mix with light mayonnaise or salad cream, grated carrot, sweetcorn, chopped pepper, dried fruit, grated or cubed cheese. Rice or couscous can be used instead of pasta.
- Fill a small tub with finger foods such as:
  - cubes of cheese and pineapple
  - chopped vegetables e.g. cucumber, carrot, pepper
  - chopped fruit e.g. orange, kiwi, fruit, grapes
  - fruit salad
- Dips for vegetables e.g. pickle/chutney, garlic/curry yoghurt dip, hummous or tzatziki.
- Tuna and pasta salad with light mayonnaise and sweetcorn.
- Try dried fruit in sandwich fillings, e.g. cheese and raisins.
- Slices of cheese cut into shapes with biscuit cutters.
- Chutney or relish add flavour.
- Cream cheese and tinned pineapple (drained of juice).
- Hummous and cucumber.

- Mashed, tinned sardines mixed with chopped tomato and grated cheese.
- Grated carrot, apple and cheese mixed with a small amount of light salad dressing.
- Tinned tuna in brine, sweetcorn and light mayonnaise.
- Creamed cheese with chopped, dried apricots
- Grated cheese and pickle/chutney.
- Cheddar cheese, Marmite and sliced tomato.
- Creamed cheese and chopped grapes.
- Egg, cress and light mayonnaise.
- Creamed cheese with cranberry/redcurrant jelly.
- Grated Edam cheese mixed with a small amount of light mayonnaise.
- Tinned salmon, chopped egg and light mayonnaise.



Commercial salad dressings or mayonnaise should be those which are 'light', low fat or reduced calorie. Once open they should be kept in the fridge.

Cream cheese, eggs, tuna, salmon and mayonnaise should all ideally be refrigerated. The use of cool bags with frozen blocks is recommended.

At home and/or where refrigeration is possible snacks could also include cold meats.

Peanut butter is another good source of protein, but it should be used with caution in a group setting because of the risk of allergy in other susceptible children. Peanut butter should also never be given to a child under 3 who has a parent, brother or sister with an allergy such as eczema or asthma.

Whole and chopped nuts should not be given to children under five because of the risk of choking.

## Dessert ideas

There are many interesting and appealing alternatives to the fatty and sugary foods sometimes included in packed lunches, for example mini bread sticks or crackers instead of crisps. Other less sugary ideas include:

- Fruit - fresh, tinned in natural juice, fruit salad
  - Fromage frais and yoghurt make a good dip for slices of fresh fruit
  - Natural yoghurt flavoured with fresh or stewed fruit depending on which fruit are in season, e.g. stewed apple, raspberries, strawberries
  - Scones
  - Carrot cake or gingerbread (without icing)
- Plain biscuit, e.g. digestive, oaty-type fig roll
- Malt loaf
- Chocolate crispie cakes with sultanas



## Drinks

As stated before, children should be encouraged to drink plain water or milk. There is no need to have diluting juices, fruit juices or cans of fizzy drinks.

## Food hygiene and safety issues

- Children under 5 should never be left alone while they are eating, in case they choke.
- All highchairs should be fitted with a safety harness, which should be used at all times when children are in the chairs. Children should never be left unsupervised while in a high chair.
- Carers should always wash their hands with soap and water before preparing food or helping children to eat, and after changing nappies and toileting children. If carers use a handkerchief while preparing food, they should wash their hands before continuing.
- Children's hands should always be washed with soap and water before meals and snacks, and after going to the toilet.
- Carers also need to be aware of food safety issues such as storage of food and leftover food, and thorough cooking or heating of foods.
- Carers need to be aware of the requirements of the Food Safety Act. It is recommended that all carers who handle food should complete a REHIS Elementary Food Hygiene Certificate course. Further information from:

Environmental & Consumer Protection  
Dundee City Council  
Standards House  
296 Strathmore Avenue  
DUNDEE  
DD3 6SH

Environmental & Consumer Protection  
Angus Council  
Municipal Buildings  
Castle Street  
FORFAR  
DD8 3LG

Environmental Services  
Perth & Kinross Council  
Pullar House  
35 Kinnoull Street  
PERTH  
PH1 5GD

## Practical hints

- Do not leave perishable food at room temperatures for more than two hours. Perishable food brought from home, including sandwiches, should be kept in a fridge or cool place below 5°C.
- Insulated cool boxes, or a cool box with cool packs, should be used for carrying food when taking children on trips or outings.



- Eggs should be kept in the fridge.
- Food stocks should be rotated and food beyond its use by date discarded.
- If food is to be eaten warm it should be re-heated until piping hot (minimum temperature of 83°C) and then cooled down before serving
- Avoid keeping food hot for long periods (It must be above 63°C and kept no longer than 1½ hours).
- Cool leftover food quickly and refrigerate.
- Do not use unpasteurised milk or milk-based products, such as cheese and yoghurt, made from unpasteurised milk.
- Root vegetables such as carrots and parsnips should always be peeled and topped and tailed. Fruit and vegetables to be eaten raw should be peeled for very young children, and washed well.
- Whole pieces of nut should not be given to under-5s in case of choking. In addition do not give peanut products to children under 3 years where there is a family history of atopic disease (asthma, eczema, hay fever or food allergy).

## Dental health: How carers can help reduce tooth decay in children



Pre-school children should have their teeth brushed twice a day with a fluoride toothpaste. If brushing is carried out in day care, it should be done about twenty minutes after eating or drinking. Brushing sooner after eating may weaken the enamel. Each child should have their own, labelled toothbrush and toothpaste. A smear of normal adult strength toothpaste should be used.

All children are being issued with toothpaste and a toothbrush at their 8 month screening by the Health Visitor.

Reduce both the total amount and especially the frequency of sugar and sugary foods that children eat and drink.

If children are having sugary foods and drinks, these should be given with meals rather than between meals. This is because children's teeth are prone to decay if they are frequently in contact with sugars.



To help the healthy development of teeth, children should not be given sweet drinks (such as fruit juice, squashes or other soft drinks) in a bottle or dinky feeder. A cup or beaker should be used if these drinks are given with meals.

If a child uses a dummy or comforter it should never be dipped into sugar or sugary drinks, as this can contribute to tooth decay.

Some soft drinks, which claim to have 'no added sugar' still contain sugars, which are harmful to the teeth. Diet drinks, both fizzy and still, can also be harmful. This is because they may be acidic and erode the dental enamel, especially if sipped frequently. The use of these drinks should be avoided or limited.

We accept that at times these drinks will be given to children, so if they are used, they must be included as part of a meal.

## Learning through food

Food can be used in a variety of educational ways, for example to teach children about food sources, growing cycles and other people's ways of life. Learning how to choose and enjoy many different nutritious foods in early childhood can provide the foundation for a lifetime of wise food choices.

Carers should involve children in preparing food and laying and clearing tables.



Holidays, festivals and religious occasions provide a valuable opportunity for children to learn about special events and different cultures and the variety of foods associated with these events.

## Food-related activities

- Making pictures with food - for example using dried pasta and pulses, rice, seeds or bay leaves.
- Cutting out food pictures from magazines for collages, murals or mobiles.
- Food prints: halved small potatoes, carrots, apples or parsnips.
- Making a seed ball for the birds.
- Papier maché fruit and vegetables
- Growing mustard and cress or sprouting seeds.
- Making playdough or salt dough.
- Having a pretend café or shop
- Food tasting
- Food smells game - for example spices, vinegar, orange, onion, strong cheese
- Food-related songs and rhymes - for example five currant buns, five little peas in a pea-pod pressed, mix a pancake, ten fat sausages.



Carers should positively encourage both boys and girls to participate in all activities, including food-related activities such as cooking.

## Food for special occasions

Food is often eaten to celebrate special occasions. For example, sharing a birthday cake may be an important social activity.

Foods given as treats to mark special occasions are often based around sweet cakes and biscuits and there is nothing wrong with the occasional treat. Where a large number of children are cared for together, however, there may be so many birthdays and other special occasions (for example Christmas, Easter, Diwali, Eid-ul-Fitr, Halloween, Chinese New Year, or birth of new brothers or sisters) that they are almost daily events.



Carers may therefore wish to think of other special ways of celebrating. The children are also likely to celebrate outside of their childcare so are unlikely to miss out on special foods. Decorating the room with balloons and streamers, encouraging children to dress up or wear party hats, playing party games and presenting foods in interesting shapes can make a party without the need for sweets, crisps, biscuits and cakes. A birthday cake made out of play dough with real candles will allow the ritual 'blowing out' of the candles to make the birthday child feel special.

Holidays, festivals and religious occasions of various cultures provide a valuable opportunity to include special occasion food and to involve the parents. The mix of children being cared for will determine which festivals in particular are celebrated, but it is important for children to learn and celebrate occasions and cultures not represented among them too. These events provide a springboard for all sorts of activities, not just those related to foods, and are an important part of the curriculum for children in school.

## Some of the most common festivals and celebrations throughout the year

<b>January</b>	1 <sup>st</sup> : New Year 6 <sup>th</sup> : Epiphany: Three Kings Day 7 <sup>th</sup> : Rastafarian New Year	<b>Late January/ early February</b>	Chinese New Year Jewish New Year for Trees
<b>February</b>	3 <sup>rd</sup> : Japanese bean scattering 14 <sup>th</sup> : Valentine's Day 40 days before Easter: Pancake Day (Shrove Tuesday)	<b>Late February/ early March</b>	Caribbean Carnival Chinese Festival of Light Purim (Jewish)
<b>March</b>	17 <sup>th</sup> : St. Patrick's Day Baha'I New Year Holi (Hindu Harvest Festival)	<b>March/ April</b>	Mothering Sunday Passover (Jewish festival of Pesach) Easter
<b>May</b>	1 <sup>st</sup> : May Day Wesak: Buddhist festival, first day of full moon in May	<b>Late May/ June</b>	Shavout: Jewish Festival of Weeks Tuan Yang Chieh: Chinese Dragon Boat Festival
<b>August</b>	Raksha Bhandhan: Indian celebration of brotherly/sisterly love	<b>September/ early October</b>	Jewish New Year: Yom Kippur Chinese Kite Festival Harvest Festival
<b>October/ November</b>	31 <sup>st</sup> : Halloween Diwali: Hindu Festival of light	<b>November</b>	5 <sup>th</sup> : Guy Fawkes Thanksgiving 30 <sup>th</sup> : St. Andrew's Day
<b>December</b>	6 <sup>th</sup> : St. Nicholas Hanukkah (Jewish Festival) 25 <sup>th</sup> : Christmas Day 26 <sup>th</sup> : Boxing Day		

Festivals such as Eid-ul-Fitr, the Islamic festival of fast breaking linked to Ramadan, occurs at a different time each year: parents will be able to advise carers on these dates.

For a current calendar of religious festivals contact:

The Festival Shop Ltd  
56 Poplar Road  
King's Heath  
BIRMINGHAM B14 7AG  
Tel: 0121 444 0444  
Fax: 0121 444 5404  
email: [info@festivalshop.co.uk](mailto:info@festivalshop.co.uk)

## Physical activity

Children should be encouraged to be physically active and carers should timetable periods of activity into the children's daily routine throughout the year. Physical activity helps to ensure that children eat enough food and get all the nutrients they need. It also builds up muscle strength and overall fitness, develops physical skills such as balance and co-ordination, and provides a

release for children's energy. Children who are physically active when they are young are more likely to maintain a healthy active lifestyle as they get older. This is important as an active lifestyle reduces the risk of ill health in adulthood.



It is essential that there is outdoor space where children can play, or access to an outside area such as a garden, park or other safe open space. Exposure to summer sunlight in outdoor play helps children to maintain their vitamin D status. However, childcare settings should have a 'sun policy', with guidelines on how long children can remain outdoors in strong sunshine, and on the use of protective clothing such as sun hats and sunscreen. All under-5s should be appropriately supervised at all times while outdoors.

Children in childcare should have access to toys or active play - for example balls, hoops and skipping ropes. In Dundee for example, staff from Leisure and Recreation organise sessions called Little Gym time at local leisure centres. The private sector organisation Tumble Tots is also active in the local area.

## Sample nutrition policy

All settings should have a nutrition policy. The following ideas could be included in such a policy:

- The weekly menu will provide children in childcare with a tasty, varied diet.
- All the children in childcare will have suitable food made available for them.
- Breakfast is very important and children are encouraged to have breakfast. Parents and guardians and those providing childcare will work together to ensure that children have breakfast.
- Milk or water will be offered with morning and afternoon snacks.
- All dairy products will be full fat.
- Parents or guardians will be advised if their child is not eating well.
- Parents of children who are on special diets will be asked to provide a referral letter and a diet sheet provided by a State Registered Dietitian. In some cases they may be asked to provide the food themselves.

- Carers will sit with children while they eat meals and will provide a good role model for healthy eating.
- Withholding food will not be used as a form of punishment.
- Children will be encouraged to develop good eating skills and table manners and will be given plenty of time to eat.
- Food and drink served will be chosen to limit the damage to children's dental health. Sweets will not be used as rewards.
- Children will be encouraged to play outside every day, weather permitting. This will ensure that they have an opportunity to be exposed to sunlight, which helps their bodies to make vitamin D.

## **Part 3 - Care In Large Group Settings**

### **Under fives in childcare**

The number of children under the age of five, spending some time being cared for outside the family home, has risen substantially as an increasing number of mothers of young children return to the workforce. The type of childcare used by parents and guardians of the under-5s depends on what is available and what they can afford, and may change as the child gets older. Parents may choose nursery schools or pre-school playgroups to socialise and stimulate their children before schooling begins, rather than primarily as a form of childcare. In many cases there is a combination of these forms of care: for example, a childminder may look after a child during parental working hours when the child is not at nursery school or playgroup. A working parent who pays for childcare for pre-school children commits an average of 30% of their take-home pay to the cost of childcare (Working for Childcare, 1995).

### **Food provision in childcare**

Although many aspects of childcare outside the home are regulated, the provision of food is not, and there are few guidelines to enable this process. Although parents or guardians have the main responsibility for providing adequate and appropriate food for their children, day care providers supply an increasing proportion of the total food eaten by children in their care.

There is very little research information available about food for children under 5 in childcare either. There are no published, large-scale studies which compare the diets of children in the U.K. attending childcare facilities with the diets of those remaining in the family home. Nor are there many published studies which determine the proportion of nutrients children receive from the food they have while in childcare. There is a particular lack of information about the food provided by childminders, even though this group of carers represent the largest form of paid childcare in the U.K. These guidelines are intended to offer providers with appropriate advice.

### **Children in half-day care**

Half-day care, involving either a morning or afternoon session, is likely to include a snack and may also include a meal.

In order to set meaningful recommendations and to allow for the fact that lunch is likely to be the most substantial meal of the day, the nutritional guidelines for children in half-day care differ depending on whether lunch or tea is included in the childcare schedule. 'Tea' in this context is defined as the afternoon 'meal', not as the afternoon snack.

### **Half-day care excluding a meal**

Children in childcare for a morning or afternoon period which does not include a meal should receive a snack during this period if the period of care exceeds two hours, and two snacks if this period is five hours or more but does not include a meal (for example 12.30pm - 5.30pm care, missing lunch and leaving before tea).

For children who have only snacks and drinks while in childcare it is suggested that snacks and drinks offered are of similar nutritional value to those included in the menus outlined for children in longer periods of day care. They should also conform to the general guidelines given about snacks and drinks.

## Nutritional guidelines for food prepared for children in HALF-DAY CARE

The following recommendations, which were compiled by the Caroline Walker Trust, are the amounts of energy and nutrients that should typically be provided for a group of children aged under five who receive meals and snacks in childcare. They are represented as a percentage of the total daily intake of the nutrients an average child requires.

### Summary of recommendations (Caroline Walker Trust 1998)

	Half-day including lunch and a snack	Half-day including tea* and a snack
Energy	40% of the EAR	30% of the EAR
Protein	Not less than 40% of RNI	Not less than 30% of RNI
Fat	Less than 35% of food energy	
Carbohydrate	About 50% of food energy	
of which NME sugars	Not more than 10% of food energy	
Thiamin	Not less than 40% of RNI	Not less than 30% of RNI
Riboflavin	Not less than 40% of RNI	Not less than 30% of RNI
Niacin	Not less than 40% of RNI	Not less than 30% of RNI
Vitamin C	Not less than 40% of RNI	Not less than 30% of RNI
Vitamin A	Not less than 40% of RNI	Not less than 30% of RNI
Iron	Not less than 45% of RNI	Not less than 35% of RNI
Calcium	Not less than 40% of RNI	Not less than 30% of RNI

\*Tea is defined as the afternoon 'meal', not as the afternoon snack.

#### Estimated Average Requirement (EAR)

The amount of a nutrient, which satisfies 50% of the children in a group (defined by age and sometimes by gender).

#### Reference Nutrient Intake (RNI)

The amount of a nutrient, which is sufficient to meet the dietary requirements for about 97% of the children in a group (defined by age and sometimes by gender). Intakes above this amount will almost certainly be adequate.

#### Percentage (%) of food energy

This refers to the percentage of kilocalories consumed

A more detailed analysis of nutrient intakes can be found in the Dietary Reference Values report (Dept of Health, 1991).

## **Children in childcare for a full day (6 hours or more)**

Children in childcare for a full day will receive the majority of their food while in childcare and therefore it is recommended that the food provided gives the children at least 70% of their daily requirement for energy and nutrients. The remaining 30% will come from breakfast and from any drinks, snacks or light meals the child receives at home.

School lunches should supply approximately 30% of the child's daily nutritional requirements, but this is only guidance in Scotland at present.

All children are encouraged to have breakfast. Parents and carers should work together to ensure that children have breakfast either at home or in child care. Fortified breakfast cereals in particular provide a valuable source of some important vitamins and minerals. The recommendations for daily intakes of nutrients do not include the contributions made by breakfast.

## Nutritional guidelines for food prepared for children in FULL-DAY CARE (6 hours or more).

The following recommendations, which were compiled by the Caroline Walker Trust, are the amounts of energy and nutrients that should typically be provided for a group of children aged under five who receive meals and snacks in childcare. They are represented as a percentage of the total daily intake of the nutrients an average child requires.

### Summary of recommendations (Caroline Walker Trust 1998)

Nutritional guidelines for food prepared for children in full-day care are given in the table below. It is recommended that for these children there is provision for two meals (called here 'lunch' and 'tea') and two snacks (mid-morning and mid-afternoon snack). Food should be offered to children at intervals not exceeding three hours.

<b>Energy</b>	70% of the EAR
<b>Protein</b>	Not less than 70% of RNI
<b>Fat</b>	About 35% of food energy
<b>Carbohydrate</b>	About 50% of food energy
<b>of which NME sugars</b>	Not more than 10% of food energy
<b>Thiamin</b>	Not less than 70% of RNI
<b>Riboflavin</b>	Not less than 70% of RNI
<b>Niacin</b>	Not less than 70% of RNI
<b>Vitamin C</b>	Not less than 70% of RNI
<b>Vitamin A</b>	Not less than 70% of RNI
<b>Iron</b>	Not less than 80% of RNI
<b>Calcium</b>	Not less than 70% of RNI

#### **Estimated Average Requirement (EAR)**

The amount which satisfies 50% of the children in a group (defined by age and sometimes by gender).

#### **Reference Nutrient Intake (RNI)**

The amount of a nutrient, which is sufficient to meet the dietary requirements for about 97% of the children in a group (defined by age and sometimes by gender). Intakes above this amount will almost certainly be adequate.

#### **Percentage (%) of food energy**

This refers to the percentage of kilocalories consumed

A more detailed analysis of nutrient intakes can be found in the Dietary Reference Values report (Dept of Health, 1991).

## Menu planning for children in childcare

Menus should be planned on a four-week cycle. The two sample menus shown are given as a guide to the sorts of foods, quantities and distribution of food throughout the day, which follow the nutritional guidelines and healthy eating advice in these guidelines.

The menus assume that children are drinking a third of a pint of whole cow's milk per day while in childcare and that this is only part of their daily intake. Milk is an important part of the diet of children. Those children who do not drink milk will need to eat larger portions of food to make up the calories and other nutrients, which would have been provided by milk. For children who do not want to drink milk it can be included in the menu in custard, milk puddings, fromage frais, yoghurt and milk-based sauces. These foods should be encouraged for children who drink no milk for whatever reason. Advice on substitutes for milk drinks is given elsewhere in these guidelines.

### Sample menus

Menus 1 and 2 meet the nutritional guidelines for an average 3 year old in childcare for a full day. A 4-5 year old will require, and want, larger portions at meals and snacks, as will children who do not drink milk. Water should always be available as a drink.



**Menu 1** is a sample menu for a one-week period. The foods and drinks in this menu provide the recommended amounts of energy and nutrients for children in childcare for a full day. Children in half-day care including lunch would get the recommended amounts by having the mid-morning snacks and lunches shown on the menu. Children in half-day care including tea would get the recommended amounts by having the mid-afternoon snacks and teas.

**Menu 2** is a sample one-week menu, which would be suitable for vegetarian children.

## Sample Menu 1 - An example menu for a child in full day care

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Example Breakfast</b>	Pure orange juice 25ml (diluted with water), cornflakes 15g, milk 50ml, brown toast 15g, margarine 3g, honey/jam 5g. Breakfast is encouraged either at home or in childcare. This is not included in the nutritional analysis.				
<b>Mid-morning snack</b> e.g. at 10am	Milk, small glass (4fl.oz/100ml) 1 savoury scone with margarine	Water 1 apple 50g Breadsticks (½oz/20g) Cheese (1oz/25g)	Milk 1 slice of fruit loaf with margarine	Milk 1 slice brown toast with margarine and a thin scraping of Marmite Raisins (½oz/20g)	Milk 1 scone with margarine
<b>Lunch</b> e.g. 12 noon to 1pm Water offered as a drink	Water, small glass. Chicken and vegetable curry (4oz/100g) Boiled rice (3oz/80g) Blackcurrant crumble with ice cream (3oz/80g)	Water Shepherd's pie (6oz/150g) Peas (1oz/30g) Stewed apple and dates (2oz/60g) Custard (2fl.oz/60g)	Water Tuna, bean and sweetcorn pasta (6oz/140g) Sponge pudding 60g Custard 60g	Water 1 lamb burger (3oz/80g) Carrots (2oz/40g) Oven chips (2oz/50g) Rice pudding with sultanas (4oz/100g)	Water Fish fingers (2oz/60g) Potatoes (2oz/60g) Broccoli (1½oz/40g) Milk jelly (4oz/100g/¼pt)
<b>Mid-afternoon snack</b> e.g. at 3.00pm	Water Carrot sticks (1oz/30g) 1 slice brown bread with margarine and slices of hard-boiled egg (about half an egg)	Milk 1 crumpet with margarine	Water Banana (2oz/50g) Plain popcorn (½oz/20g)	Milk 2 oatcakes with margarine	Water Flapjack (1oz/30g) Grapes (1oz/30g)
<b>Tea</b> e.g. at 5.00pm	Milk Baked beans (3oz/80g) 1 slice brown toast with margarine 1 apple with 1 small pot of fromage frais (2oz/60g)	Milk 1 slice of brown toast with margarine Cheese (1oz/30g) Celery (½oz/20g) Fruit salad (2oz/60g)	Milk 1 scone with margarine Ham (½oz/20g) Cucumber (½oz/20g) Tinned pineapple (2oz/50g)	Milk Pizza (2oz/60g) 1 small tomato 1 apple with ½ carton of fruit yoghurt (2oz/60g)	Milk Pasta with (2oz/60g) tomato sauce (2 fl.oz/40g) and grated cheese (½/20g) Mandarin oranges (2oz/50g)

Milk may be offered as a hot milky drink e.g. Ovaltine, Horlicks or drinking chocolate.  
Do not add sugar.

Polyunsaturated margarine is fortified with Vitamin D e.g. Flora.

## Sample Menu 2

This menu includes examples of meals, snacks and drinks, which are **suitable for vegetarian children and for particular ethnic groups**. Individual menu planners will need to use their skill to provide meals that are acceptable to the particular group of children in their care.

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Example breakfast</b>	Pure orange juice (1fl.oz/25 ml) (diluted 50:50 with water). 2 tbsp. cornflakes with milk 1 slice brown toast with margarine and honey or jam. Breakfast should be provided either at home or in childcare. This is not included in the nutritional analysis.				
<b>Mid-morning snack 10am</b>	Milk Carrot sticks (1oz/30g) 1 slice brown bread with margarine and hard-boiled egg (about ½ an egg/25g)	Milk 1 crumpet with margarine	Milk Banana (2oz/50g) Plain popcorn (½oz/20g)	Milk 2 oatcakes with margarine	Milk Flapjack (1oz/30g) Grapes (1oz/30g)
<b>Lunch between 12 and 1pm</b> Water offered as a drink	1 slice wholemeal tomato and egg quiche (4oz/100g) with baked beans (3oz/80g) Banana (2oz/50g)	Fried tofu (2oz/60g) with stir-fried vegetables (3oz/80g) and noodles (2oz/60g) ½ carton of milk or soya fruit yoghurt (2oz/60g)	Potato curry (2oz/60g) with boiled rice (3oz/80g) and dahl (2oz/50g) and chapati (1oz/20g) 1 small orange in segments	Pasta (3oz/80g) with tomato sauce (1½oz/40g) and grated cheese (½oz/20g) Broccoli (1½oz/40g) Dried fruit salad (4oz/100g)	Baked sweet potato (3oz/80g) Rice and peas (3oz/80g) Spinach (1oz/30g) Pineapple (3oz/80g)
<b>Mid-afternoon snack 3pm</b>	Milk 1 English muffin with margarine	Milk 1 apple Breadsticks (½oz/20g) Cheese (1oz/25g)	Milk 1 teacake with margarine	Milk 1 slice brown toast with margarine and thin scraping of Marmite Raisins (½oz/20g)	Milk 1 scone with margarine
<b>Tea 5pm</b>	Milk Cheese (1oz/30g) 1 slice brown toast with margarine 1 apple 1 small pot fromage frais (2oz/60g)	Milk Scrambled egg (2oz/60g) 1 slice brown toast with margarine Celery (½oz/20g) Fruit salad (2oz/60g)	Milk 1 savoury scone with 1 tbsp hummous and cucumber 1 egg custard tart (2oz/60g)	Milk 1 slice pizza (2oz/60g) 1 small tomato 1 apple with ½ carton of fruit yoghurt (2oz/50g)	Milk Pasta (3oz/60g) with 1/8 pint cheese sauce Sweetcorn (1oz/30g) Mandarin orange (2oz/50g)

## **Contact telephone numbers**

If you have any difficulties with the content of these guidelines or you require further help and support, please contact one of the local telephone numbers:

### **Angus Council**

- for Social Work or Education: 01307 461460

### **Dundee City Council**

- Social Work Dept: 01382 434000
- Early Years Education: 01382 433950

### **Perth & Kinross Council**

- Education & Children's Services: 01738 476211

### **NHS Tayside**

- Your local Health Visitor or G.P. surgery could also give you a contact number for your local Community Dietitian.

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## **Members of the working group**

### **Chair**

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