



Nutrition for Under 5s

A balanced, nutritious diet is vital for **healthy growth and development** in childhood.

During this time we create **lifelong food preferences** and also set the foundations for **long-term health**, making children far more **nutritionally vulnerable** at this point than in any other phase of their life.

Dietary Shortfalls

There is evidence that the diets of under 5s in the UK are too low in **vitamins A & C**, too low in **iron and zinc** and, for some groups, **vitamin D**.

Children's diets also contain **too few fruits and vegetables**, too much of the type of **sugars** that most contribute to tooth damage, and too much **salt**.

As a result, food served to children in childcare has never been higher on the **political, media and parental agenda**.

Those who provide childcare are in a unique position to have a **positive influence** not only on the nutritional intake of these children but also on the **knowledge and attitudes** the children have towards food and a healthy lifestyle.

Nutritional Guidelines

A varied diet is associated with better health as it is more likely to contain all the nutrients the body needs. **Food and nutrition standards** help to ensure that young children have the best chance of getting all the nutrients they need to grow well, be active and stay healthy.

**Eat better,
start better**

Nursery Food Requirements

- **Pre 1998** - No guidelines in existence for children in childcare settings across the UK
 - **1998** - First edition of the Caroline Walker Trust report published
- **2012** - Children's Food Trust introduce a set of voluntary food and drink guidelines
 - **2017** - Children's Food Trust guidelines taken over by Action for Children due to financial difficulties, but guidelines remain unchanged

The **Eat Better Start Better** guidelines detail how often, how much and which types of food should be provided for children aged 1 - 5 years. They also list food and ingredients that should be **limited or avoided**.



The food and drink guidelines are underpinned by a **Nutrient Framework**, which defines the level of **12 different nutrients** that children should gain from their nursery food.

A menu that is **compliant with these guidelines** for the under-5's in childcare will **satisfy the nutritional needs** of this age group.

How does school food compare?

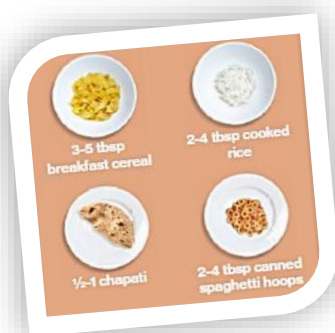
- o **2008** - Became **mandatory** for primary schools to adhere to government regulations for food-based and nutrient-based standards for school meals.
- o **2009** - Standards became **mandatory** for secondary schools

There have been calls for nursery food to be regulated in the same way. However, in the absence of mandatory guidelines, **voluntary resources** such as **Eat Better Start Better** are **essential tools** for nurseries and catering providers looking to make sure they are doing the right things, at the right times, to get children off to the **best start in life**.



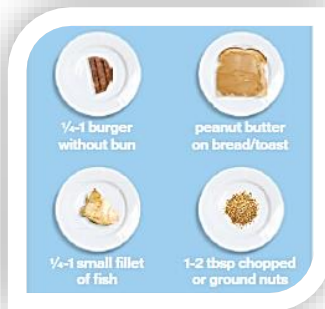
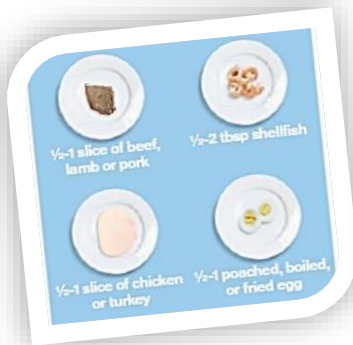
Starchy foods

- ✓ Needed for **energy, fibre, B vitamins & iron**
- ✓ **1 portion of starchy foods** - such as bread, rice, pasta and potatoes - **each day**
 - ✓ **3 different types** of starchy foods provided **across each week**
 - ✓ **Wholegrains** (i.e. brown rice/wholemeal pasta/wholemeal bread) provided at least **once a week**



Protein

- ✓ Need for growth, a source of **iron & zinc, omega 3 fats, vitamins A & D**
- ✓ **1 source of protein** - including a variety of meat, fish, cheese, eggs, beans, pulses and meat alternatives - **each day**
- ✓ **Meat products** (such as sausages and meatballs) no more than **once a week**
- ✓ **A variety** of meat, fish & meat alternatives (i.e. soya mince, Quorn) **across the week**
- ✓ **Oily fish** (salmon/mackerel/sardines/herring/anchovies) at least once **every 3 weeks**
 - ✓ One **vegetarian lunch** provided **each week** - a nod towards animal welfare and sustainability



Milk & dairy



- ✓ Needed for calcium - healthy **bones and teeth** and **vitamin A**
- ✓ **1 dairy product** - including milk, cheese, yoghurts, milk-based sauces, custard and puddings made from milk - **each day**



Additional guidelines are provided regarding **specific ingredient choices** - limiting products containing added salt and sugars (such as tinned foods and condiments), processed meat products (such as meatballs and burgers), fried starchy foods, pastries, crisps and other convenience foods - plus acknowledging **food safety** by warning against nuts and partially cooked eggs.

Perfect Portions

Although the guidance gives examples of portion sizes, these will vary for toddlers of different sizes, ages and appetites. In order to ensure that the energy and nutrient needs of those in the group with the **highest requirements** are met, average portion sizes are based on estimated average energy requirements for **children aged 5** (1000 - 1400 calories per day).

A large, active toddler will have higher energy requirements than a smaller, less active or younger child. **Reduced portion sizes** may therefore be appropriate.



Nutrient		1-2 year olds	3-4 year olds	1-4 year olds
Energy	kcal	1,100	1,480	1,290
	MJ	4.6	6.2	5.4
Total fat	g	42.8	57.6	50.2
Carbohydrate	g	146.7	197.3	172.0
Non-milk extrinsic sugars (NME sugars)	g	32.3	43.4	37.8
Protein	g	14.5	17.1	15.8
Iron	mg	6.9	6.5	6.7
Zinc	mg	5.0	5.8	5.4
Calcium	mg	350	400	375
Vitamin A	µg	400	450	425
Vitamin C	mg	30	30	30
Sodium	mg	800	1,000	900
Salt	g	2	2.5	2.3

Studies have shown that most adults tend to consume **similar quantities** of food each day whereas the amount toddlers consume **fluctuates** from day-to-day, and from meal to meal.

It's important to remember that children's **food preferences and appetites** vary (often in line with growth and activity) so let toddlers decide how much to eat and **keep offering** new foods alongside familiar favourites. It's important not overly encourage or restrict children's consumption - a healthy relationship with food relies on recognising internal signals of hunger and fullness.

For **fussy eaters** or **overweight children**, it is good practice to offer small portions and then allow them to go for seconds if they are still hungry (rather than initially providing a large portion)

Children Under 1

Our standard menus are developed in line with guidelines for **1-5 year olds**. Before this age, babies' nutritional requirements will **differ slightly**. However, the below example demonstrates how nurseries could modify our meals to meet their needs (with specific adaptations by nursery shown in **green**):

Standard menu

Main Course	Side Dish	Dessert
Vegetable Korma Curry	White Rice	Orange Jelly with Mandarins



Adapted Menu (infants aged 7-12 months)

Main Course	Side Dish	Finger Food	Dessert
Vegetable Korma Curry (blended/chopped/ mashed as needed)	White Rice	Broccoli Florets	Mixed Fruit



It is important to remember that infants develop at **different rates**. Progression from first foods to a range of blended, mashed or chopped foods (alongside a reduction in breast milk/formula feeds) should be a gradual process based on each infant's **developmental readiness**, rather than age alone.

It is also important that settings work closely with families to ensure a consistent approach in food provision both at home and within the setting.

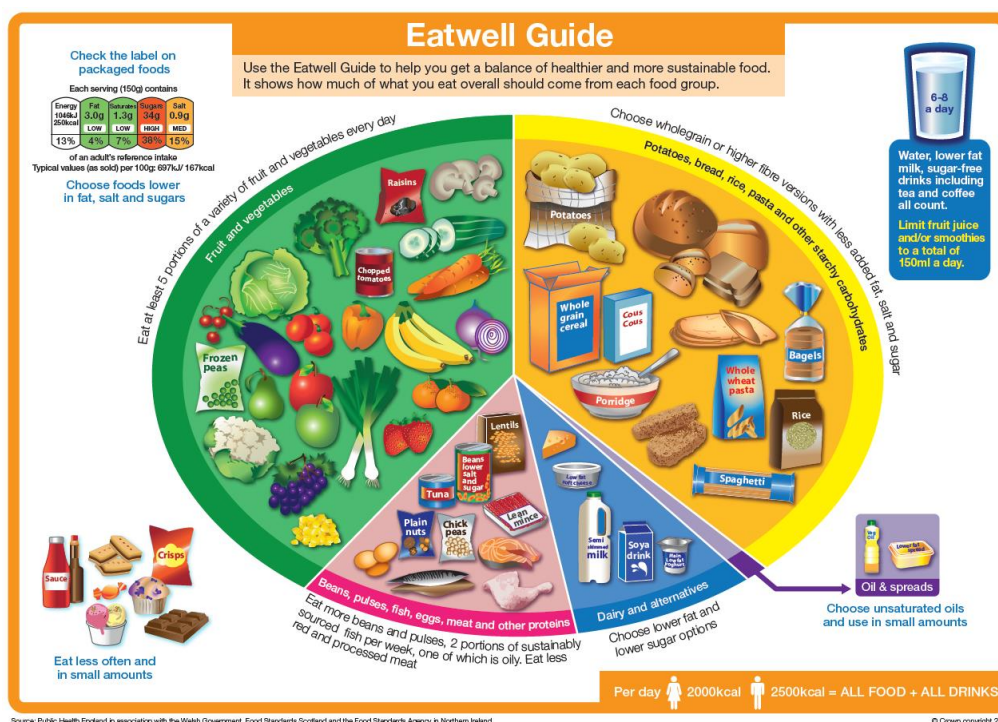
Please note that Zebedees also offer a range of **100% organic baby food** (containing a mix of fruits, vegetables, grains and meat), which are specifically developed for under 1s.



Age	Variety
Stage 1 and up	Fruit Purees
Stage 1 and up	Vegetable Purees
Stage 2 and up	Vegetable & Meat Purees
7 months +	Vegetable & Meat Dinner Purees

Adult vs Child

You cannot simply take **standard adult guidelines** for nutrition and healthy diet and **cut them by a percentage** based on a child's size. Children's bodies are in the process of **rapid growth and development**. This progression creates a nutritional demand which is different than an adult's needs.





Generic guidelines such as the **Eatwell Guide** provide a useful starting point for pre-school settings to begin to educate children on what a balanced and nutritious diet should look like, but some of the suggestions are **not suitable** for under 5s:

Base all meals on potatoes, bread, rice, pasta or other starchy carbohydrates
(**choosing wholegrain versions where possible**)

Whilst it is good practice to provide toddlers with whole grains for at least one breakfast, lunch and tea each week, young children shouldn't consume **ONLY** whole grain options.

These foods are so full of fibre that toddlers can fill up before they have taken in all the energy they need. Zebedees therefore provide a variety of wholegrain and white starchy foods across the nursery menu each week.



Consume some dairy or dairy alternatives (such as soya drinks),
choosing lower fat and lower sugar options where possible

Children need more calcium and fat than adults in their diet – making reduced fat products unsuitable for this age group (despite being recommended for adults, who **don't burn fat as easily**). Soya milk is suitable in moderation but only if fortified with calcium.



Yoghurts are naturally high in lactose (milk sugar) and toddlers have a natural preference for sweet, energy-dense foods (and some a tendency to overeat when given unlimited access to such foods) – so **reduced sugar / no added refined sugar** yoghurts are a sensible suggestion.

Vitamins

DH recommends that children aged 6 months to 5 years, including those who are breastfed or consuming less than 500 ml of formula milk per day, **should be given supplements providing vitamins A, C and D.**

This is particularly important if children are fussy eaters, have food allergies or intolerances or do not eat a varied diet. Vitamin drops are available from NHS centres through the Healthy Start scheme and some families with children under the age of 4, who are receiving certain benefits, can get **free vitamin supplements and weekly vouchers** to spend on milk, fruits and vegetables through this scheme (www.healthystart.nhs.uk).

Despite the recognised need for such nutrients (particularly vitamins D), the vitamin scheme is currently very underutilised.





Sources of Daily Calcium





Distribution of Nutrients

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 around 90% of their daily requirement** for energy and most other nutrients.

It's important to remember that while children have high energy and nutrient requirements, but only have **small stomachs**, so they need to eat little and often. Children under 5 therefore shouldn't go more than **three hours** without eating while they are awake.



Breakfast: 20%

Snack am: 10%

Lunch: 30%

Snack pm: 10%

Tea: 20%



This leaves approximately 10% left to be **given at home in the evening**. This also bridges the gap between tea and breakfast which, due to nursery meal timings (often earlier than meals at home due to various logistical considerations) is a significant length of time.

Eating together as a family in the evening is also to be encouraged if possible, as this helps further promote healthy food behaviours.

Packed Lunches

Putting the onus on busy parents to provide packed lunches that meet nutritional guidelines is challenging and doesn't always lead to **positive outcomes** for children.



Many nurseries do great work with parents to improve the standards of packed school lunches but we know that some still contain high levels of salt and sugar and lack nutritional variety. Statistics suggest that **more 8% of children consume their 5 a day**, with crisps and confectionery frequently replacing fruits and vegetables as daily staples in nursery and school packed lunches.



Name: More healthy packed lunch ideas

Class: Each day a healthy packed lunch should include:

A portion of starchy food White or wholegrain bread, rolls, pitta bread or wraps, plain naan bread, bagels, cooked pasta, rice, noodles, couscous or potato as a salad.	At least one portion of fruit and/or vegetable Fresh, frozen, canned or dried, these can all count towards 5-A-DAY. Vegetables: carrot, cucumber, pepper or celery sticks, tomatoes, grated carrot in sandwiches or wraps, sweetcorn, peas or pulses in salad. Fruits: sliced apple or melon, plums, grapes, strawberries, kiwi, satsumas, chunks of pineapple, or dried fruit.
A portion of meat, fish, eggs, beans or other non-dairy sources of protein Sliced meat, chicken, fish, sliced egg in sandwiches, rolls or wraps, meat alternatives such as tofu or pulses like kidney beans and chickpeas in salads.	A portion of milk or dairy foods Yoghurt or fromage frais, cheese in sandwiches or wraps, whole milk (for children aged one to two) or semi-skimmed (for children aged two and over).

Sugar Intake

Government dietary advice on sugar changed significantly in 2015.

In its report on Carbohydrates and Health, the **Scientific Advisory Committee on Nutrition (SACN)** recommended that sugar intakes should be assessed using a definition of **free sugars**, replacing non-milk extrinsic sugars (NMES) - on which recommendations had been based for the previous 25 years.

SACN also recommended that **free sugars should not exceed 5% of total dietary energy intake** for adults and children from the age of 2 years, halving the previous recommendation for NMES.

Free sugars = All monosaccharides and disaccharides **added to foods** by the manufacturer, cook or consumer, plus sugars naturally present in honey, syrups and unsweetened fruit juices. The sugars **naturally present in milk and milk products** (lactose) and the sugars in the cellular structure of foods are excluded.



ZEBEDEES PUDDING POLICY

Children aged 1-5 have a high requirement for vitamins and minerals because of the rapid rate of growth and bone development and high activity levels during these years.

In fact, pre-school age children need more nutrients and calories per kilo body weight than a grown man. A healthy diet for young children must therefore differ from that of older children and adults.

Early years settings are encouraged to meet the **Voluntary Food & Drink Guidelines** for Early Years Settings in England, introduced in 2012, including those for non-milk extrinsic sugars, often added to foods & beverages during processing.

As part of these guidelines, desserts, puddings and cakes made with cereals (such as rice or oats), milk and fruit can be included as part of a healthy, balanced diet for young children. With this in mind, our menus

include a variety of different pudding options, balanced out across the 3-week menu cycle. Any desserts made with ingredients that contain added sugar (such as the ice cream and the custard) only contain amounts that are well within suggested limits, with ingredient quantities reviewed and adapted where appropriate.

Should parents prefer for their child to receive just fruit for pudding in place of desserts containing any refined sugar, we are happy to accommodate this. However, when the guidelines were developed, it was found that where settings provided only fruit as a dessert option, children often weren't getting enough calories, carbohydrate or nutrients (such as zinc and iron - needed for healthy growth and immunity), which a variety of different dessert options can help to provide.

Furthermore, we believe that establishing an **"everything in moderation"** approach from a young age, in the context of an otherwise nutritious and balanced diet, is important to help set healthy eating habits later in life.

* Please note that advice for children between birth and 12 months of age differs from those aged from 1 to 5 years old. The Department of Health recommends that all added sugar is avoided by children under 12 months of age, and we can supply fruit only puddings upon request. We also produce our own range of **organic frozen baby food purees**, which are completely additive and preservative free.

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

Eating is an important part of everyone's life. Encouraging children to eat healthily does not mean **denying them food they enjoy**. Healthy eating is about getting a varied, balanced diet and enjoying lots of different foods.

Despite the very best of intentions, **overly moralising** about children's dietary choices / particular ingredients won't necessarily lead to a healthy relationship with food. In contrast, a heavy-handed approach to nutrition education can be counterproductive - potentially creating distorted attitudes which may persist into adulthood.





Sugar Alternatives

Replacing refined sugar with honey, maple syrup, agave, coconut palm sugar etc. does not automatically make the recipe healthier. They all contain sugars with varying proportions of glucose and fructose and **all of them supply free sugars**. It is not somehow better because there is less processing, because the types of sugars in all of them are largely the same and have the **same effect on the body**.



There are trace amounts of some vitamins in unrefined sugars like maple syrup or molasses but not a significant amount compared to other foods. Agave is **very refined** too and cane sugar comes from plants! It's therefore important to take a common sense approach.



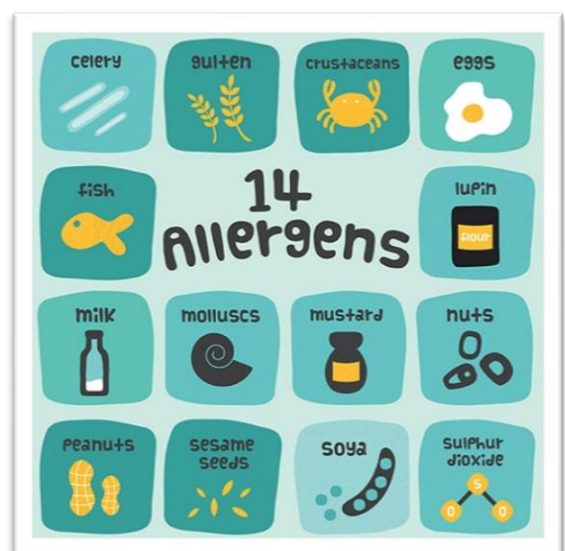
Food Allergies

Food allergies affect about **5-8% of children in the UK** and can be defined as a reproducible adverse reaction to a food involving the immune system. In food allergy there is an abnormal sensitivity to a substance present in food (usually a **protein**) which is generally considered harmless for the majority of people.

Most people grow out of food allergies in early childhood but reactions can be severe and in rare cases **life-threatening**. Childcare settings should therefore have an allergy plan in place.

Foods that can **commonly cause severe allergic reactions** include: peanuts, nuts, shellfish, sesame seeds, cow's milk, eggs, fish, citrus fruits, soya beans, wheat and other cereals.

While many parents believe that their children are sensitive to certain foods, the true incidence is likely to be very much lower than reported. Serious food allergies are more likely to occur in children with a **family history of allergies** such as asthma, eczema or hay fever.





Parents requesting special diets for their children because of food allergy should be encouraged to **seek advice from a doctor or a registered dietitian** if they have not already done so. It is unwise to restrict food choice among young children without appropriate help and advice – a healthcare professional will offer bespoke advice to ensure they are still getting all the **nutrients they need**.



Fussy Eaters

How can I encourage children to eat well?

- ★ Act as a **good role model** in the foods and drinks you choose for yourself
– **speak positively** about the food you are eating and the food served to them.
- ★ Children aged 2-4 years should be allowed to **serve themselves** during meals, 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.
- ★ Learning how to choose and enjoy many different nutritious foods in early childhood can inspire a lifelong love of good food. Encourage an interest in food and **where it comes from**, and involve children in growing, picking and preparing food as well as laying and clearing tables, serving others and even **cooking and baking**
- ★ Children should be allowed to make their own food choices. If a child refuses a food or meal, gently encourage them to eat, but children should never be forced to eat. Children often eat well in a **calm atmosphere** where others are enjoying their food
- ★ To minimise food refusal, it is important to ensure that **a variety of foods are offered** without **judgement**. Listen to what children request





when it comes to serving their food. Some children don't like different parts of the meal touching each other, some prefer to have food that they can see clearly (for example, not covered in sauce or gravy), and some may prefer certain food items on separate plates and bowls

- ★ Remember that children's **tastes change**. Use the phrase "It's alright if you don't like it today" when a food is refused, rather than assuming that they will never choose or like that food in the future. Foods **offered regularly** often become liked foods and it is important to serve a variety of foods even if they are not eaten, so that children get used to seeing them on their plate.

Eat a rainbow



By leaving certain coloured fruits and vegetables out of your diet, you are missing the opportunity to eat the full range of nutrients needed to keep you healthy, strong, give you energy and help you grow.

Try to fill at least half of your plate with rainbow coloured fruits and vegetables at each meal time - breakfast, lunch and dinner.



Eat a rainbow

We have all been told "eat your greens!" But what about your oranges, reds, purples and blues?

Eating a rainbow of colour does not apply to M&M's, but to fruits and vegetables. Different coloured fruits and vegetables contain different nutrients.

To get everything your body needs you should eat as many different coloured fruit and vegetables as you can every single day - eat a rainbow!

Orange & Yellow foods - to look after eyes & boost immunity



Red and Pink foods - to look after your heart and protect your skin



Blue & Purple foods - for strong joints and a healthy brain



Green foods - to help build strong bones and teeth



- How many of these can you name?
- What colour is your favourite food?
- What do they taste like? How do you eat them?
- How many different colours have you eaten today?

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