

A Nutrition Guide for vegans under five years old



This guide provides information about totally plant-based nutrition for children. With a bit of knowledge and planning, you can provide your child with the nourishment they need for a great start in life. This guide is not designed to replace advice from health professionals. Please talk to a health professional about supplements to ensure that they are suitable for your child. If you have any concerns about your child's diet, ask your doctor for a referral to a registered dietitian.

Infants less than six months old

The best food for your baby is your breastmilk. If breastfeeding is not an option, infant formula is recommended. Soya-based infant formula can be fed to vegan infants when breastfeeding is not an option¹, but please speak to your health visitor or doctor before using it. Please note that soya-based infant formula contains vitamin D3 from sheep's wool. The definition of veganism recognises that it is not always possible or practicable to avoid the use of animals.

Vitamin D

Vitamin D helps to make your baby's bones strong. If your baby is breastfed, it is recommended that you give them vitamin D drops from birth to ensure that they meet the recommended safe intake of 8.5-10 micrograms per day². Vitamin D2 is animal-free. Vitamin D3 usually comes from sheep's wool, but some supplements contain vitamin D3 from a vegan-friendly source called lichen. If your baby is formula fed, vitamin D supplementation is not required until they are drinking less than 500ml daily because vitamin D is added to the infant formula².

First foods from six months

Drinks

Breastmilk (or infant formula) should be your baby's main drink until they are one year old. If possible, continue to breastfeed your child until they are at least two years old. Once your baby is six months old, start to introduce them to drinking tap water from a baby cup.

First foods

It is recommended that you wait until your baby is six months old before introducing food. However, every baby should be considered individually. If you are thinking about introducing food to your baby between four and six months, please speak to a health professional. Food should not be introduced before your baby is four months old³.

There are a couple of ways of introducing food to your baby:

- Smooth or mashed food on a spoon (little chewing needed)
- Finger food that your baby can explore and chew

There are advantages and disadvantages to both approaches, and you can use both together. The table below contains some tips about preparing your baby's first foods:

Food type	Preparation advice	General tips
Smooth	Cook it Use a sieve, blend it with breastmilk/unsweetened fortified soya milk or mash it Use potato/sweet potato as a thickener if required	Do not add salt or sugar Wash raw food well Cool before serving
Mashed	Raw or cooked food Add breastmilk/unsweetened fortified soya milk as required Use potato/sweet potato as a thickener if required	
Finger	Choose food that is soft/easy to chew Avoid whole grapes, nuts, popcorn and chunks of carrot/apple Remove any pips, stones, tough skin or stringy bits The ideal size is a little bigger than your baby's fist	

Unsweetened fortified soya milk can be used in cooking once your baby is six months old. It is readily available, and may be cheaper than other plant milks. It is a source of protein, calcium, riboflavin and vitamin B12.

If your baby has been diagnosed with a soya allergy, choose unsweetened fortified oat milk. This option contains less protein than soya, but more calories. In this situation, ask your doctor for a referral to a registered dietitian for individual dietary advice.

Please do not give rice milk to children under five years old. It may be unsafe for little ones due to traces of arsenic⁴.

When you are offering food to your baby, ensure that they are sitting in a safe position and supervised at all times. Let your baby progress at their own pace. It may take several tastes before they get used to eating a new food. As you gradually increase the amount of food, your baby will reduce their breastmilk (or infant formula) intake.

It is a good idea to offer some first foods that are rich in iron, including beans, chickpeas, lentils and tofu. The amount of iron absorbed may be increased by offering good sources of vitamin C too, such as pepper, broccoli, cabbage and mango.

Peanuts

Although whole nuts should be avoided until your child is five years old, peanut butter could be a valuable first food. If your baby already has a diagnosed food allergy, or there's a history of allergy in their immediate family (such as asthma, eczema or hay fever), talk to a health professional before giving them food containing peanuts for the first time⁵.

Vitamins A, C and D

Following on from the recommendation about vitamin D drops for breastfed babies from birth, the Department of Health recommends that children aged between six months and five years are given daily supplements containing vitamins A, C and D (unless they are drinking more than 500ml infant formula daily). This is because some children do not get enough vitamin A and vitamin C in their diets⁶, and it is difficult to get enough vitamin D from food⁷. These are the recommended daily intakes for infants between six months and one year old:

Vitamin	Recommended daily intake from six months to one old ^{7,8}
A	350mcg (micrograms)
C	25 milligrams
D	8.5 - 10mcg

Please see earlier advice for information about vegan-friendly forms of vitamin D.

Infants seven to nine months old

At this stage, a typical daily intake might be three meals (including mashed and finger foods) and four milk feeds. Encourage your baby to sip water from a baby cup too.

Continue to provide first foods that are good sources of iron along with good sources of vitamin C. Here are some ideas to help you put together balanced meals for your baby:

- **Breakfast:**
 - Oats or iron-fortified cereal mashed with unsweetened fortified soya milk and puréed/mashed/grated/chopped fruit
 - Soft fruit finger food
- **Lunch or evening meal:**
 - Starchy food, such as rice or mashed potato/sweet potato, or macaroni offered as finger food
 - Mashed vegetables, including beans, chickpeas or lentils (consider adding unsweetened fortified soya milk, plain fortified soya yoghurt or nut/seed butter)
 - Finger food, such as sweetcorn, avocado or cooked broccoli, green beans, pepper or carrots (if the mashed meal does not contain lentils, beans or chickpeas, stir-fried tofu fingers could be offered to boost protein, iron and zinc intakes)
 - Puréed/mashed/grated/chopped fruit with plain fortified soya yoghurt or custard/semolina/rice pudding made with unsweetened fortified soya milk

Calcium

Calcium is important for teeth and bones. Breastfeeding your child until they are at least two years old will help them to get enough. Fortified unsweetened soya alternatives to milk and yoghurt and calcium-set tofu are valuable sources of calcium because both the content and absorbability are good. Plant milk can be used in cooking, but should not be offered as a drink until your child is one year old. Other sources of calcium include kale, pak choi, okra, chopped and softened dried figs, ground chia seeds and almonds (ground or butter).

Vitamin B12

Include foods fortified with vitamin B12 in your child's daily diet. There are some examples of foods that might be fortified on the following page (check the label).

- Unsweetened soya milk (do not offer as a drink until your child is one year old)
- Plain soya yoghurt
- Breakfast cereal
- Vegan spread
- Nutritional yeast flakes (available from health food retailers)

Vitamins A, C and D

See earlier advice

Iodine

All vegans need to ensure that there is a source of iodine in their diets because the content of most plant foods is low and variable. At this stage, the recommended iodine intake for your baby is 60 micrograms per day⁸. If your baby is breastfed, the need to add a source of

iodine to their diet increases as their intake of breastmilk decreases. A supplement can provide a reliable source of iodine. Please seek advice from a health professional because it is important that your baby does not get too much iodine.

Omega-3 fats

Omega-3 fats are important in the development of your child's brain, nerves and eyes. Your child's daily diet should include a good source of omega-3 fat, such as ground chia seeds, ground linseed, ground hemp seeds or ground walnuts. You can also use vegetable (rapeseed) oil as your main cooking oil. The omega-3 fat in these foods is called is alpha-linolenic acid (ALA). Our bodies can convert ALA into other omega-3 fats, including eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). The European Food Safety Authority recommends a daily DHA intake of 100 milligrams for infants from six months to two years old⁹. DHA is not found in plant foods. DHA from microalgae can be provided to vegan infants through supplementation. However, we require research into the health benefits of supplementation for vegans.

Nursery school

When you are choosing a nursery school, find out how much members of staff know about vegan nutrition. Talk to them about how to promote an inclusive eating environment. It is helpful to highlight that vegan options are suitable for most children.

Infants ten to twelve months old

At this stage, a typical daily intake might be three meals (including minced and chopped foods) and three milk feeds. Your baby will be developing their biting and chewing skills, and hard food can be introduced in bitesize pieces. They will also be developing their ability to feed themselves. For instance, you can introduce them to using a spoon. Water can be offered in a baby cup with the aim of no longer offering any drinks in a bottle by the time your child is one year old.

Continue to provide foods that are good sources of iron along with good sources of vitamin C. Here are some ideas to help you put together balanced meals for your baby:

- **Breakfast:**
 - Oats or iron-fortified cereal mashed with unsweetened fortified soya milk and fruit
 - Fruit finger food or fingers of toast with nut/seed butter
- **Lunch or evening meal:**
 - Starchy food, such as macaroni, white rice, fingers of wholemeal bread, mini rice cakes or potato/sweet potato (either in bitesize pieces or mashed)
 - Protein-rich food, such as beans, chickpeas, lentils, tofu or soya mince

- Finger food, such as carrot sticks, sweetcorn, avocado or cooked green beans or peas
- Fruit with plain soya yoghurt or custard/semolina/rice pudding made with unsweetened fortified soya milk
- Fruit finger food

Calcium, vitamin B12, vitamins A, C and D, iodine and omega-3 fats

See earlier advice

Children one to four years old

Little ones need meals and snacks that provide lots of energy and protein for growth, but they might have small appetites. Here are some helpful tips about making the most of your child's food:

- Offer some lower fibre starchy foods (such as white rice and pasta) because they are valuable sources of energy
- Quinoa contains more protein than rice, pasta or potato
- Add energy to meals and snacks by adding ground nuts and seeds, nut and seed butters, vegetable oil and vegan spread
- Avoid lower fat products

Once your child is two years old, you can gradually adjust their diet so that it is balanced in a similar way to your diet by the time they are five years old. Avoid giving whole nuts to children younger than five years, and limit their intake of sugar and salt. Ensure that your child's daily diet contains calcium-rich foods, and offer plenty of iron-rich options combined with good sources of vitamin C.

Calcium

Calcium is important for teeth and bones. Breastfeeding your child until they are at least two years old will help them to get enough. Unsweetened fortified soya milk can be offered as a drink from one year of age. 300ml provides a good daily intake of calcium. Plain fortified soya yoghurt and calcium-set tofu are also valuable sources. Other sources include kale, pak choi, okra, dried figs, ground chia seeds and almonds (ground or butter).

Iron

It's also important to make sure that your child's daily diet contains plenty of foods that are rich in iron. Beans, chickpeas, lentils, tofu, cashew nuts (ground or butter), ground chia seeds, ground linseed, ground hemp seeds, pumpkin seeds (ground or butter), quinoa, kale, raisins, dried figs, dried apricots and fortified breakfast cereals provide good amounts of iron. Recommended daily iron intakes are 6.9mg (milligrams) for one to three year olds, and 6.1mg for four to six year olds⁸. You can find out more about the iron contents of plant foods [here](#).

Adding vitamin C-rich food to meals helps with iron absorption. Good sources of vitamin C include pepper, broccoli, cabbage, Brussels sprouts, kiwi fruits, oranges, strawberries and pineapple.

Vitamin B12

Every vegan needs a reliable source of vitamin B12 in their diet, either fortified foods or a supplement. Here are some examples of foods that might be fortified (check the label):

- Unsweetened soya milk
- Plain soya yoghurt
- Breakfast cereal
- Vegan spread
- Nutritional yeast flakes (available from health food retailers)

Our suggestions about vitamin B12 for children have been worked out using UK recommended intakes and our recommendations for adults^{8,10}. If you are offering fortified foods to your child as a source of vitamin B12, aim for a daily intake of 1mcg (microgram) from one year of age, increasing to 2mcg by the time they are seven years old. These intakes are safe, and will help your child to absorb enough vitamin B12, especially if their intake of fortified foods is spread out across the day as much as possible. Alternatively, provide a supplement.

Vitamins A, C and D

Please see earlier advice for information about supplementation recommended by the Department of Health.

The table below displays the recommended daily intakes of vitamins A, C and D for infants from one to four years old.

Vitamin	Recommended daily intake from one to four years old ^{7,8}
A	400mcg (micrograms)
C	30 milligrams
D	10mcg

Please see earlier advice for information about vegan-friendly forms of vitamin D.

Iodine

All vegans need to ensure that there is a source of iodine in their diets because the content of most plant foods is low and variable. From one to three years old, 70mcg (micrograms) per day is recommended, and from four to six years old it increases to 100mcg⁸. If your baby is breastfed, the need to add a source of iodine to their diet increases as their intake of breastmilk decreases. A supplement can provide a reliable source of iodine. Please seek advice from a health professional because it is important that your baby does not get too much iodine.

Omega-3 fats

Omega-3 fats are important in the development of your child's brain, nerves and eyes. Your child's daily diet should include a good source of omega-3 fat, such as ground chia seeds, ground linseed, ground hemp seeds or ground walnuts. You can also use vegetable (rapeseed) oil as your cooking oil. The omega-3 fat in these foods is called alpha-linolenic acid (ALA). Our bodies can convert ALA into other omega-3 fats, including eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). DHA is not found in plant foods. The European Food Safety Authority recommends a daily DHA intake of 100mg (milligrams) for infants from six months to two years old, and a daily EPA and DHA intake of 250mg for older children⁹. EPA and DHA from microalgae can be provided to vegan children through supplementation. However, we require research into the health benefits of supplementation for vegans.

School

When you are choosing a school, find out how much members of staff know about vegan nutrition. Talk to them about how to promote an inclusive eating environment. It is helpful to highlight that vegan options are suitable for most children.

Summary

- If possible, breastfeed your baby exclusively until they are six months old, and continue until they are at least two years old
- It is recommended that breastfed babies are given vitamin D drops from birth
- Once your baby is six months old, introduce their first foods, including iron-rich options (such as beans, chickpeas, lentils and tofu) plus vitamin C-rich foods to help with iron absorption
- Offer calcium-rich food with every meal, such as unsweetened fortified soya milk (to be used only in cooking until one year of age), plain fortified soya yoghurt and calcium-set tofu
- Offer ground nuts and seeds or butters daily, including a good source of omega-3 fat, such as ground chia seeds, ground linseed, ground hemp seeds or ground walnuts
- Ensure that your child's diet contains sources of vitamin B12, either through fortified foods or a supplement
- The need to add a source of iodine to your child's diet increases as their intake of breastmilk decreases (a supplement is recommended)
- Introduce tap water in a baby cup from six months old, and aim to stop offering drinks in a bottle from one year of age

- In the UK, daily supplements of vitamins A, C and D are recommended for children from six months to five years of age (unless they are drinking more than 500ml infant formula daily)
- Once your child is two years old, gradually adjust their diet so that they are eating a balanced and varied diet similar to yours by the age of five years, including calcium-rich foods and plenty of iron-rich options combined with good sources of vitamin C

Further information

'Eating well: vegan infants and under-5s' written by Dietitian Dr Helen Crawley contains useful information and recipes:

http://www.firststepsnutrition.org/pdfs/Eating_well_for_veg_infants_for_web.pdf

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