

Vegetarian diets and children

Vegetarians are people who don't eat meat and meat products. People may be vegetarians for ethical, environmental, health or cultural reasons. If parents are vegetarians, they may want their children to eat the same way that they do.

For most healthy children, a vegetarian diet can provide a nutritious alternative to a diet that includes meat. However, special care needs to be taken with children on all vegetarian diets, especially vegan diets. Strict vegan diets are generally not recommended for very young children.

Types of vegetarians

There are different types of vegetarians, determined by the types of foods a person does not eat. Vegetarians can be classified into the following groups:

- **Lacto-ovo vegetarians** – exclude red meat, offal, fish and poultry. Obtain protein from dairy products, eggs, beans, legumes, pulses and nuts.
- **Lacto-vegetarians** – exclude red meat, offal, fish, poultry and eggs. Obtain protein from dairy products, beans, legumes, pulses and nuts.
- **Vegans** – exclude red meat, offal, poultry, fish, eggs and dairy products. Obtain protein from beans, legumes, pulses, nuts and soy products like tofu.

The type of vegetarian diet most commonly associated with significant nutritional problems in children is the vegan diet.

Vegetarian mothers and breastfeeding

If your diet is healthy, breast milk alone will be enough until your baby is around six months. Make sure you eat plenty of the following foods because they contain important vitamins and minerals:

- Protein foods such as nuts, eggs, dried beans and lentils, and tofu
- Dairy products such as cows milk, cheese and yoghurt or soy products fortified with calcium
- Cereal and grain foods, including fortified or wholegrain cereals and grains
- A variety of fruit and vegetables, including green leafy vegetables
- Polyunsaturated or monounsaturated oils.

A severe lack of vitamin B12 in breast milk can cause brain damage to your baby. It can also cause anaemia in the mother. Vitamin B12 deficiency could occur if your diet has excluded all foods of an animal origin over a number of years. Vitamin B12 is found mainly in animal products, milk and eggs.

Mushrooms are often claimed to be a source of B12. However, this is not accurate. They contain a compound with a similar structure to B12 but it doesn't work like B12 in the body.

If you are a vegan and are breastfeeding, you may need vitamin or mineral supplements. Talk to your doctor or dietitian.

Children need good nutrition

To make sure your child gets enough of all the nutrients needed for a growing child, their vegetarian diet must include:

- Protein alternatives such as nuts, eggs, legumes and tofu
- Energy for growth and development
- Iron to prevent anaemia
- Vitamin B12
- Vitamin D and calcium to prevent bone disease

- Suitable fats from non-meat sources
- Food in the correct form and combination to make sure nutrients can be digested and absorbed.

Breast milk or formula will remain an important food for babies up until 12 months. Talk to your child and maternal health nurse about the introduction of solids.

Recommended sources of protein

Meat provides an easily absorbed, concentrated source of protein but other foods can also provide a good source of protein. These include dairy products, eggs, grains, legumes, pulses and various soy foods (such as tofu, tempeh and seitan). It is possible to consume enough protein for proper growth and development by following a vegan or vegetarian style of eating.

Beans and legumes

Small serves of protein should be included at each main meal. Suggestions for beans and legumes include:

- Baked beans
- Lentils
- Chickpeas and hummus
- Red kidney beans
- Butter beans
- Cannellini beans
- Borlotti beans
- Three bean mix
- Haricot beans
- Smooth nut butters.

Pulses should be thoroughly cooked to destroy toxins and to help digestion. Undercooked pulses can cause vomiting and diarrhoea.

Children's high-energy needs

Young children have high-energy needs and a small stomach. You should include a mixture of refined and unrefined (wholegrain) cereals and a variety of energy-giving foods in your child's diet. These can be found in the following foods:

- **Cereals** – all types of cereal are suitable for vegetarian diets. This includes baby cereals such as infant rice cereal and wholegrain cereals and refined cereals like pasta, flour, white rice and white bread.
- **Dairy products** – full fat dairy products are the most common choice. An alternative is soy milk with added calcium. Some soy milks also have added vitamin B12.
- **Fruit and vegetables** – include a wide variety of fruit and vegetables every day. As a guide, aim for two small serves of fruit and three small serves of vegetables.
- **Oils** – include soy and canola oils because they contain linolenic acid, which is important for brain and nervous tissue function. Oils also provide energy.

Be careful with fibre

Watch the amount of fibre in your child's diet. Too much fibre can lead to poor absorption of important nutrients including:

- Iron
- Zinc
- Calcium.

Too much fibre can also be extremely filling, which may prevent a child from eating enough food for their energy needs. Try to introduce a variety of high-energy foods, such as avocados and vegetable oils, to meet your child's energy needs.

Vegetarian diets for very young children

Suggestions for a vegetarian diet for baby and young child include:

- **Milk** – continue breastfeeding or using fortified infant formula until at least 12 months.
- **Solids** – don't delay the introduction of solids.

- **Grains, fruit and vegetables** – include baby rice cereal, fruits and vegetables (consider continuing with iron-fortified rice cereal for longer) as first solids.
- **Offer a variety of solids** – after six months begin with pureed fruit and vegetables. On advice from your child and maternal health nurse, you can later add soft cooked beans, lentils and pulses, tofu, pasteurised yoghurt, cheese, egg, avocado, smooth peanut and other nut pastes or sesame seed paste (tahini).

Tips for your child's vegetarian diet

For a family considering a change to a vegetarian diet, or for those who want to bring up a child on a vegetarian diet, it is important to:

- Understand what foods need to be substituted in the diet as energy, protein and vitamin sources may need to be 'topped up'.
- Encourage your child to eat a wide variety of foods.
- Alternate wholegrain and refined cereal products.
- Combine lower energy vegetarian foods, such as vegetables, with higher fat foods: for example, vegetable fritters.
- Increase the energy value of food by the use of nut butters, avocado, full fat dairy products, fat spreads and oils.
- Give your child regular meals and snacks.
- Combine foods containing vitamin C with foods that are high in iron. For example, offer an orange with baked beans on toast. Vitamin C enhances the absorption of iron.

If you are going to place your child on a vegetarian diet, it is a good idea to see a health professional for advice about a balanced diet and supplements.

Where to get help

- Your doctor
- Your Maternal and Child Health nurse
- An Accredited Practising Dietitian, contact the Dietitians Association of Australia
- Royal Children's Hospital Tel. (03) 9345 5522

Things to remember

- In healthy children a vegetarian diet can provide a nutritious alternative to a diet that includes meat.
- Vegetarian diets are prone to vitamin and protein deficiencies, so care must be taken that nutritional needs are met.
- Very young children and babies should not eat a strict vegetarian diet.

This page has been produced in consultation with, and approved by:

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