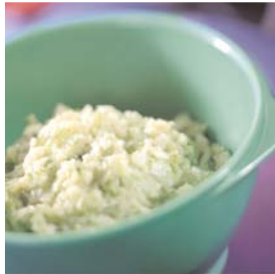


# Vegetarian pregnancy, vegetarian babies



'all the information you need'

Photo: Corin Jeavons



Vegan Kat has an active toddler  
and another baby on the way

# INTRODUCTION

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For many of us, thinking about parenthood, being pregnant or having a new baby can lead to a lifestyle reassessment: we all want to do our best for our children's health and, with new responsibilities, we want to be certain of our own health and fitness too. The best reassurance about the suitability of a vegetarian or vegan diet for pregnant women and babies comes from the people who really know: the women who have had trouble-free vegetarian and vegan pregnancies, and the proud parents of healthy vegetarian and vegan children. All the stories and photographs in this booklet are 'real': we think you'll agree that it makes an inspiring read!

# PRE-CONCEPTION

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The health of both mother and baby is influenced not only by diet during pregnancy but also by diet before conception. Eating a healthy diet before conception will give your body a good store of nutrients for the baby to draw on during pregnancy. The foetus is most susceptible to nutritional imbalance during the first few months of pregnancy because this is the time of most rapid development.

If you take the contraceptive pill, it is a good idea to come off and use an alternative method of contraception a few months before conceiving. This is because the pill can alter levels of some nutrients, particularly vitamin B6, folate and zinc. Ensure that you have a well-balanced diet with plenty of fresh fruit, vegetables (especially green vegetables) and wholegrain cereals, and try to avoid fatty foods, sweets, biscuits and cakes. Now is also the time to make other healthy lifestyle changes such as stopping smoking and cutting way back on alcohol.

If you find you are pregnant before you have had time to think about pre-conception, then don't worry, there is still plenty of time to make healthy changes to your diet.



I had two very straightforward pregnancies apart from some heartburn in the last couple of months. Dylan weighed 10lb 10z and Elias 9lb, so they were off to a good start. Both were born by emergency caesarean and I made a very rapid recovery from both and surprised even the midwife!

Rachel

# PREGNANCY

Pregnancy is a time when good nutrition is vital, for vegetarians and non-vegetarians alike. It is a time of readjustment as well as growth. The nine months are divided up into three divisions of three months each called trimesters. Many women experience changes in mood, activity and appetite with the different stages of pregnancy. There is no truth in the old saying that pregnancy means eating for two. The extra energy needed averages less than 200 kilocalories a day for nine months. This is equivalent to two slices of bread with margarine or a small jacket potato with baked beans or

cheese. Some women do feel a lot more hungry than this and if they are gaining weight at the right rate, they should eat according to their appetite.

The 'Balance of Good Health' advice given to the general population equally applies to vegetarians. A healthy diet includes plenty of fruit and vegetables and starchy foods, moderate amounts of alternatives to meat and fish, and moderate amounts of dairy produce or alternatives, and small amounts of foods containing fat and sugar.

The following advice need not be strictly adhered to every day, but as long as the general diet essentially follows the guidelines outlined a balanced and healthy diet should be achieved.

## THE BALANCE OF GOOD HEALTH

### ✓ Fruit and vegetables

5 portions daily

Fresh, frozen, juiced, canned or dried fruit and vegetables.

Supply in particular vitamins, minerals and fibre.

### ✓ Alternatives to meat and fish

2-3 portions daily

Include a variety of pulses, nuts, seeds, eggs and other soya, Quorn™ and wheat proteins in the diet to ensure adequate intakes of protein, minerals and vitamins.



### ✓ Foods containing fat, foods containing sugar

0-3 portions daily

Although some fat is needed in the diet, eat these foods sparingly, and look out for low fat alternatives.

### ✓ Bread, other cereals and potatoes

5 portions daily

Make these starchy foods the basis of most meals. Try to include wholemeal or wholegrain versions when possible. Avoid adding too much fat. Supply carbohydrates, fibre, protein and some vitamins and minerals.

### ✓ Milk and dairy products

2-3 portions daily

Good sources of calcium, protein and some vitamins. If avoiding dairy foods, choose fortified soya, rice or oat drinks or ensure other foods high in calcium are included.

# NUTRIENTS

## ■ Fluid

You may find that you are more thirsty during pregnancy. This is natural as fluid intake should increase. Never allow yourself to become over thirsty and include plenty of fresh water, dilute fruit juices, milk (soya or cow's) and herb teas. Drinks containing caffeine (tea, coffee and cola) should be limited and alcohol should be avoided altogether if possible.

## ■ Protein

Increased protein needs in pregnancy are usually met simply by the extra calories from more foods. Protein can be found in dairy products, cereals, pulses, nuts, seeds, eggs and other soya, mycoprotein and wheat proteins. Intake of dairy products and eggs should not increase dramatically since it is possible that excessive amounts may sensitise the baby in the womb to allergies towards these foods.

## ■ Iron

The need for iron is increased during pregnancy, especially during the later stages. Anaemia, due to iron deficiency, is common in pregnancy whether you are vegetarian or not. Good vegetarian sources of iron are

wholegrain cereals, pulses, leafy green vegetables and dried fruits. Iron absorption is increased dramatically if taken with a good source of vitamin C, which can be found in fresh fruit and vegetables, so having a glass of fruit juice with a main iron rich meal is ideal.

Iron levels normally decrease during pregnancy as the blood becomes more dilute. If a blood test demonstrates your iron stores are low, your doctor may prescribe iron tablets, so if you are not sure you are eating enough iron rich foods, you may wish to consider taking an iron supplement, but, as with all supplements, be careful to follow instructions.

## ■ Calcium and Vitamin D

The body needs extra calcium during pregnancy, especially in the later stages, to enable the baby's bones to develop. Calcium absorption from the gut is more efficient during pregnancy and this should provide enough to meet requirements, however, vegans and vegetarian women who consume few dairy products need to be particularly careful to ensure adequate calcium in the diet. Some vegan women, especially if they intend to breast-feed, may decide that a

## TRIMESTER GUIDE

### ■ 0~3 Months

Women usually feel different and may experience tiredness or sickness particularly in the morning. Calorie needs are only about 100 kilo-calories more in the early stages of pregnancy and some women do not experience much increase in appetite until the end of this period.

### ■ 3~6 Months

Appetite usually increases after the first three months though since considerable reductions usually occur in physical activity and metabolic rate this helps to compensate for the increased needs. Extra calorie needs should be met by cereals, pulses, nuts and seeds, dairy products (unless vegan) and starchy vegetables such as potatoes.

### ■ 6~9 Months

The baby is maturing now and this is a time for easing up on activity and preparing for the birth, though this is the period when an extra 200 kilo-calories a day are needed. The baby takes up a lot of space and may press on the stomach, reducing the capacity for food, so many women feel they need to eat small meals more frequently at this stage. Normal weight gain during pregnancy is one and a half to two stones (10 to 12.5kg). Weight gain often slows down during the last few months of pregnancy.

calcium supplement is a wise precaution, although with a good vegetable intake of calcium it may not be necessary. Good sources of calcium include green vegetables, almonds, sesame seeds or tahini, cow's milk, tofu, cheese, yoghurt, wholegrain cereals and pulses.

Vitamin D is essential for calcium absorption and can be obtained from sunlight, margarine and dairy products. If you have dark skin, cover much of your skin or spend little time outside you should consider taking a vitamin D supplement, especially in the winter months.

### ■ Folate / Folic Acid

Folate is one of the B vitamins needed in increased amounts during pregnancy, a lack of which has been shown to contribute to the possibility of birth defects. Vegetarians

usually have a high intake since the best sources of this vitamin are green leafy vegetables, fruit, peanuts, yeast extract and wholegrain cereals. Research has shown that long term vegetarians have a particularly good folate status, however all women not using contraception are advised to take a 400 microgram supplement (400 µg) of folic acid every day, and for the first twelve weeks of your pregnancy.

### ■ Vitamin B12

This vitamin is essential to the growth and development of your baby. If adequate amounts of dairy products, eggs and fortified products such as yeast extract are included in your diet, then you should have enough vitamin B12. It is especially important for vegans to include a reliable source of vitamin B12 in the diet during pregnancy.

Some vegan foods, such as certain brands of soya milk, margarines, yeast extracts and veggieburger mixes are fortified with this vitamin, however, if you feel that your intake of vitamin B12 from your diet is unreliable, then a supplement is highly recommended.

### ■ Omega 3 fats

It is now recognised that long chain omega 3 fatty acids perform an important part in the development of the baby's brain and eyesight while in the womb, so you should try to optimise your intake of omega 3 fats yourself. The simplest way to do this is by including two teaspoons of flax seed oil in your diet each day, taken either on its own or mixed into dressings etc. Flax oil is also available in vegetable capsules, as is algal oil, which is a direct source of DHA.

Being vegan and bringing up my son vegan is no problem. It's such a healthy diet and Lucas is always bouncing with energy. I haven't needed iron supplements with either of my pregnancies – unlike many meat-eating mums I know. Also, all the 'danger' foods are meat or dairy, so as a vegan I am automatically protecting my unborn child and myself from a number of health risks!

Kat



Photo: Corijn Jeavons

# GENERAL ADVICE

## Morning sickness

Studies show that about three quarters of all women experience nausea and vomiting during pregnancy, especially in the first few months, although it can last throughout pregnancy. Morning sickness can be relieved by having a dry biscuit or toast before getting up. Avoiding long intervals between meals helps, as nausea often occurs at the same time as hunger. Starchy foods, such as bread and potatoes, should be eaten regularly as they help maintain blood sugar level and fill the stomach, helping to relieve sickness.

## Food safety

Vegetarians routinely avoid many of the foods that should be avoided in pregnancy, but remember to avoid soft cheeses such as Brie and mould ripened cheese such as Stilton, because of the risk of listeria. Cottage cheese or hard cheeses, such as Cheddar, should be used instead. Both free-range and battery eggs have been found to contain salmonella, so raw or lightly cooked eggs should be avoided. Vitamin A supplements should also be avoided (even if part of a multi-vitamin).

If the pregnant woman or the baby's father, or any previous children have a history of hay fever, asthma, eczema or other allergies, it is recommended that peanuts and foods containing them (including groundnut oil) be avoided in the diet while pregnant and breastfeeding.

## Digestive problems

Heartburn is very common in the later stages of pregnancy. It can be alleviated by avoiding large meals and instead choosing small frequent meals or snacks. It can help to sit up very straight when eating and avoid activity just after a meal. Spicy and fatty foods, fizzy drinks and citrus fruits can make the problem worse. During pregnancy, the digestive system absorbs nutrients more efficiently and this can contribute to constipation. Iron tablets often make the problem worse. Constipation can be relieved by increasing fluid intake and including plenty of wholegrain cereals, pulses, fruits and vegetables in the diet.

## CONCLUSION

A healthy vegetarian diet can provide you with all the nutrients you need during



Vegetarianism has been a way of life for me for the last 20 years, so I had no worries at all about providing a healthy nutritious diet for both myself and the little person growing inside me. My daughter Leilani was born on her due date weighing a healthy 8lb 10oz, so I must have been doing something right!

Charlotte

your pregnancy and give your baby the best possible start in life. A vitamin and mineral supplement should not be needed if a good balanced vegetarian diet is followed, but will not cause any harm if taken as a precaution, but choose one without vitamin A.



Welcome to the world, Rose!



# BABY

Once your baby is born, if you decide to breastfeed you must still take care with your own diet.

## Breastfeeding

Breastfeeding gives your baby the best possible start in life. During lactation, the breastfeeding mother will need to increase their energy intake by only around 500 kilo-calories a day since most women's bodies are very efficient at making breast milk. Make sure that you eat

plenty of protein and vitamin rich foods. Recommended intakes for calcium and zinc are also increased so extra food sources of these may be an appropriate choice. It is important to drink enough fluids and keep your intake of alcohol as low as possible. The same advice on eating peanuts in pregnancy still stands. While breastfeeding all mothers are recommended to take appropriate vitamin D supplements, and keep up their intake of omega 3 fats.

## Formula Milk

A wide range of cow's milk or soya based infant formula

milks are available that are suitable for vegetarians. You may wish to look for cow's milk based brands which contain DHA (an omega 3 fatty acid) derived from algae.

Well-planned vegan and other types of vegetarian diets are appropriate for all stages of the life-cycle including during pregnancy, lactation, infancy, childhood, and adolescence.

American Dietetic Association and Dietitians of Canada 2003



Bringing our two boys up vegetarian offers them the best of both worlds – eating a healthy diet and being kind to all animals – not just our three cats! Proud dad Paul with baby Aidan

# WEANING

Taking the first steps in bringing your child up as a vegetarian isn't difficult. Remember that the nutritional requirements of a small baby are high, they need proportionally more protein, calcium and most other nutrients than at any other time of their life.

Bringing up your child as a vegetarian, you will want to get them used to a wide variety of foods, including cereals, pulses (beans), nuts and seeds, dairy and soya produce, fruit and vegetables. Your baby may initially reject stronger tasting foods, such as broccoli, cauliflower and cabbage, at six months but may like them several months later, so never give up.

It is quite safe to bring up your baby as a vegan, with no animal foods at all, as long as you make sure that plenty of nutrient rich foods are included. Vegan babies, as all babies, need good sources of calcium, vitamin B12, vitamin D and protein.

Weaning is a gradual process that begins when you start to replace milk with solid foods. Infants should not be given solid foods before the age of four months except on the advice of a health professional. A mixed diet

should be offered by the age of six months, at which stage babies need a source of iron in their diet as breast or formula milk can no longer provide enough.

## STAGES OF WEANING

### ■ 4-6 months

Before the age of four months babies can't properly digest any foods other than breast or formula milk, which remains the most important source of nutrition at least up to the age of six months. Babies should, however, be introduced to solids before the age of six months. Start by introducing one teaspoon of pureed fruit or baby rice mixed with breast or formula milk after a milk feed or in the middle if this works best for your baby. Always take care that the food is adequately cooled. The nutrition of the food is not so important at this stage as milk still supplies all the baby's needs. Just one solid feed a day initially should be enough for most babies.

Other foods to start with are:

- Puréed vegetables, such as potatoes, carrot, courgette
- Puréed fruit, such as banana, cooked apple, pear
- Baby rice, corn meal, sago or millet can all be given as a thin porridge.

As the weeks go on milk remains the most important

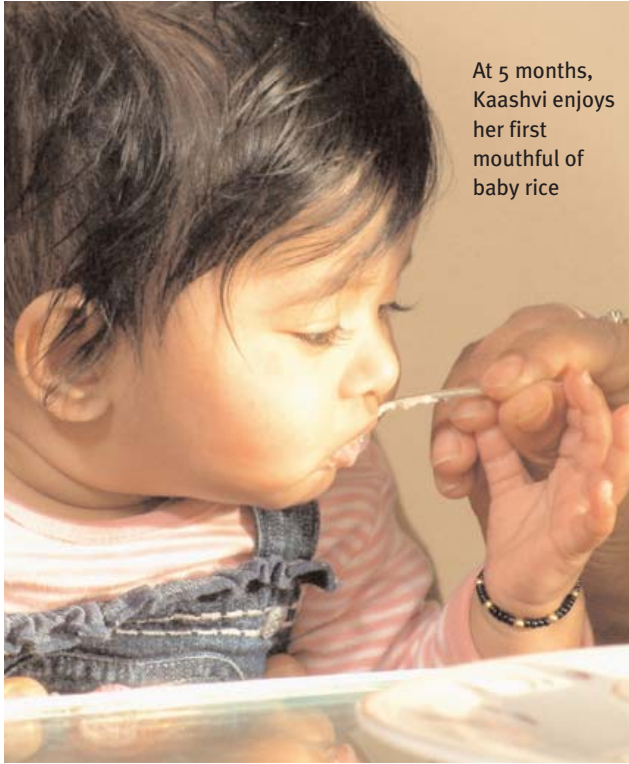
food in your baby's diet, but you can gradually increase the number of times solid food is given from once to twice and then three times a day, depending on your baby's appetite. As time goes on try mashed lentils with some added vegetable oil and a wider variety of fruit and vegetables such as avocado and green vegetables.

Do not give wheat, oats, milk, nuts, eggs or citrus fruit before the age of six months.

### ■ 6-8 months

Most babies will by now be eating solids although milk is still a large part in their diets. Solid foods now provide an important source of iron, and most babies will be having solids three times a day. From six months you can start to introduce wheat and oat based cereals such as bread and porridge. You can puree or sieve family foods to give variety, as long as they do not contain added salt.

Try introducing tofu and mashed lentils, if your baby is not already eating them, for protein. Silken tofu is particularly useful since it can be mixed in with fruit and vegetable purees. Dairy foods (yoghurt and cheese) can be introduced after six months, as can eggs as long as they are very well cooked, though you will find some experts recommend avoiding all dairy products and eggs until 12 months old.



At 5 months, Kaashvi enjoys her first mouthful of baby rice

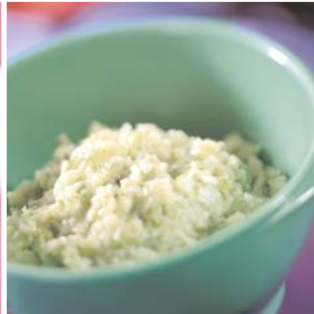
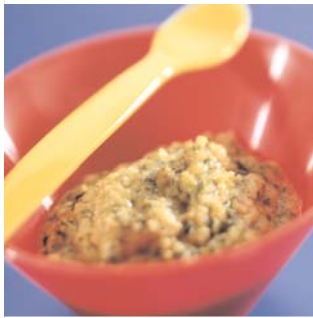
## ■ 8-12 months

Now your baby will gradually be able to cope with lumpier foods. Foods from the family table can be included in the baby's diet as long as they do not contain salt. Well cooked and mashed peas and beans can be introduced from around 8 months - they are a little difficult to digest and so can cause problems if introduced earlier. Avoid sweet biscuits and rusks if possible, but you don't have to be too puritanical. Try introducing pieces of peeled apple, raw carrot or crusts of bread. When your baby is able to chew, pieces of fruit, sandwiches and toast can become normal everyday foods. By the age of 12 months your baby should be enjoying three substantial meals a day.

Many companies produce baby foods suitable for vegetarians but it's quick and easy to prepare your own food for your baby. If you buy ready prepared food, always check the ingredients label and look out for The Vegetarian Society's Seedling symbol to be absolutely sure that it is totally vegetarian.

The vegetarian diet is adequate for the nutritional needs of infants.

British Medical Association  
1986



# IMPORTANT NUTRIENTS FOR A GROWING BABY

## ■ Iron

This is an important nutrient during weaning, as milk is a very poor source of iron.

Babies are born with their own store of iron but this will be depleted by six months.

Although iron is less easily absorbed from non animal sources, there are plenty of good vegetable sources. Iron rich foods suitable for babies after six months include puréed apricots, molasses, lentils, cereals, well mashed thin skinned beans and green vegetables. Avoid cereals that are very high in fibre as these may inhibit iron absorption. Vitamin C, found in fresh, frozen or juiced fruit and vegetables, aids absorption of iron from plant foods and so it helps to give sources of these

nutrients together. A diluted fruit juice offered with a meal is a good option.

## ■ Calcium

Breast or formula milk contains all the calcium your baby needs initially. Good sources of calcium for the later weaning stages include cow's and formula soya milk, cheese, green vegetables, wholemeal bread, beans, lentils, ground almonds, sesame paste and tofu.

## ■ Protein

Because babies are growing rapidly they require more protein than adults compared to their body weight. Breast or formula milk will provide the major source of protein for the first eight months. After that choose from beans, lentils,

cereals, dairy products, eggs, soya products, nuts, seeds and products such as Quorn™ to add into the diet. A variety of foods should be given each day so the baby obtains the right balance of amino acids. For example, if a baby has toast, lentils and yoghurt during a day, that would give a good balance.

## ■ Energy

It is very important to remember that low fat healthy eating advice commonly targeted at the adult population is completely inappropriate for babies.

Babies between the age of 6 and 12 months require 700 to 1000 kilocalories a day, so they need concentrated sources of energy. Babies and

We've agreed to bring Luther up as a vegan until he is old enough to decide for himself. We're in Libya at the moment, and we can't get much ready-made food, but there is plenty of exotic fruit and veg, nuts and pulses to cook with. I believe we should give our children the opportunity to think with free minds as they grow up, so that they can make conscious decisions about how to live their lives. Nick





Kaashvi is a very bonny, cheerful and happy girl who is very inquisitive and is a source of great joy to her family. She is growing quite quickly on her current diet of milk and the odd mashed vegetable. Subahu

young children do not have the capacity to eat large quantities of food and so they need small and frequent meals. Their diet should not contain too many foods that are bulky, watery or high in fibre. Make sure your baby has some concentrated energy foods like lentils with vegetable oil, avocado, cheese or smooth nut butter. Adding a quality vegetable oil to other less energy dense foods is a simple way to increase its calorific value. Sugar however is not a good source of energy for babies.

### ■ Vitamin B12

Vitamin B12 is only naturally found in foods of animal origin. Very young babies will get all the vitamin B12 they need from formula or breast milk. Later vegetarian babies should obtain enough of this vitamin from dairy products and eggs, however it is particularly important to ensure that vegan babies get vitamin B12 from fortified foods such as soya formula, low salt yeast extract or veggie burgers.

### ■ Vitamin D

Vitamin D is found in dairy products, eggs and fortified foods like margarine and some breakfast cereals, and can be made by the action of sunlight on the skin. It is only naturally found in animal foods, but both vegetarian and vegan babies would benefit from a vitamin D supplement. Breast or formula milk should provide all the vitamin D needed initially.

### ■ Vitamin drops

From six months it is sensible to give your baby vitamin drops containing vitamins A, C and D unless they are drinking at least a pint of formula milk a day. Many brands are vegetarian.

### ■ Fibre

A diet too high in fibre will fill up a child before their nutritional needs have been met and can interfere with absorption of minerals, such as zinc, iron and calcium. Bran should never be added to a young child's diet – if you think your baby is constipated give extra fluid such as cooled boiled water or diluted fruit juices.

### ■ Milk

When your baby reaches the age of one year, full fat cow's milk can be introduced as a drink (cow's and other animal milks are too low in iron and other nutrients to introduce earlier, though they can be

used in cooking). Babies under two should not be given semi-skimmed milk and children under five should not be given skimmed milk because skimmed milk lacks the fat soluble vitamins A and D, and young children need the energy from fat. Soya milks must be specially formulated for babies if they are used instead of breast milk, and if avoiding animal milk products, soya formula must be used as a drink up to the age of 2 years, though fortified soya drinks can be used in cooking.

### ■ Salt, sugar and honey

These should be avoided in the diet of babies and young children. A baby's kidneys are not mature enough to cope with too much salt so it is important to ensure your baby consumes less than 1g of salt a day. Don't forget that many processed foods not specifically made for babies are high in salt, so always read the label. Sugary foods and drinks are a prime cause of tooth decay, and sugar gives calories without any associated vitamins or minerals. It is important to avoid introducing honey into your baby's diet before 12 months, because it may contain a bacterium that affects immature intestines.

### ■ Nuts

Whole or chopped nuts and seeds are not suitable for children under five because of the danger of choking, but

they can be used finely ground, or as smooth nut spreads. You will find some experts suggest avoiding nut products altogether in a small child's diet due to the risk of allergies developing. Certainly if the mother, father or any previous children have a history of hay fever, asthma, eczema or other allergies, it is important that peanuts and foods containing them (including groundnut oil) are excluded from the diet until at least the age of three years.

### ■ Quorn™ and processed soya/gluten based products

Quorn products are a useful addition to the diet of young children, but should not be relied on as the sole or major

source of protein since they are relatively low in calories and high in fibre so may satisfy the child's appetite before they have taken in enough energy. Textured vegetable protein and similar products may be difficult for young babies to digest, and some brands are relatively high in salt, but small amounts can be introduced from eight months.

Children who consume well-planned vegetarian diets should be able to achieve all their nutritional requirements for growth.

British Dietetic Association  
1995



Photo: Corin Jeavons

Raising Aidan as a vegan is such a natural, instinctive choice. We know we are giving him a positive and pure start to his life, not only is he a picture of health, he's also turning into a very compassionate, considerate and caring child. Corin & Lesley

■ **Opposition from family and friends**

You may come across some reluctance from relatives to accept that a vegetarian diet is best for your baby, but it is now widely recognised by bodies such as the British Medical Association and the Department of Health that a vegetarian diet can provide all the nutrients needed for growing infants. The Vegetarian Society is more than happy to provide fully referenced scientific evidence that such a diet is perfectly safe and, indeed, healthful.

Established in 1847, The Vegetarian Society is a national charity that promotes awareness and respect for vegetarian lifestyles through education and support.

The Society works across the community - with individuals, schools, colleges, government, media and industry. We provide expert advice on diet and nutrition, and information for food producers, enabling them to meet the needs of vegetarians with integrity. We also keep vegetarianism in the news ([www.vegsoc.org/press/index.htm](http://www.vegsoc.org/press/index.htm)) and feed the real facts to the press.

The work of The Vegetarian Society helps keep the standard of vegetarian food high – we help caterers offer vegetarians real choice. We give vegetarians a louder, stronger voice.

The Society relies on its members to fund our valuable work, and thanks to them we've been able to make a huge difference to the lives of millions of vegetarians. There's still plenty of work to be done but we can't do it without you – by joining The Vegetarian Society you can help us create a better vegetarian future for your children.

Members receive a glossy quarterly magazine ([www.vegsoc.org/vegmag/index.html](http://www.vegsoc.org/vegmag/index.html)), enjoy discounts in hundreds of veggie-friendly shops and cafés and gain exclusive access to our telephone information service.

To join simply dial 0161 925 2000.

■ **Further nutritional information**

The Vegetarian Society can provide more detailed information on the sources of all the specific nutrients mentioned in this booklet free of charge – just call us on 0161 925 2000.

■ **Recipes**

The following books are all endorsed by The Vegetarian Society, and contain a large variety of recipes for babies and young children, together with basic nutritional advice.



Great Healthy Food for Vegetarian Kids, Nicola Graimes

Veggie Food for Kids, Sara Lewis

Rose Elliot's Mother, Baby + Toddler Book

**The Vegetarian Society** is a registered charity (no. 259358) dedicated to promoting the benefits of a vegetarian diet. We campaign and raise awareness of vegetarian issues, provide information and educational materials, work closely with the food industry and strive to improve catering standards through our Cordon Vert Cookery School.

**design** temple design

**food photos** from Veggie Food For Kids © octopus publishing group/DAVID JORDAN



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