

## Why vegan diets for babies come with significant risks

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There are now more than <u>1m vegetarians and 500,000 vegans</u> in the UK – and numbers are thought to be growing. While these people, identified through research commissioned by the Vegan Society, are over 15 years



of age, the growing numbers make it likely an increasing number of infants are also being brought up on vegetarian or vegan diets.

But making sure <u>babies</u> get the right amount and balance of nutrients can be a tricky job even without restrictions on what they can eat. Even in developed countries, a large proportion of children don't get enough vitamins and minerals, and there is some evidence that vegan diets might be adding to this. So how hard is it for vegetarian or vegan parents to get this right while passing on their <u>food preferences</u>?

Babies need a lot of nutrients. They may triple their birth weight in the <u>first 12 months</u>, indicating just how much skin, bone, blood and organ tissue they need to lay down. They also have particular needs when it comes to the type and balance of nutrients they need. Adult <u>healthy</u> <u>eating recommendations</u>, encouraging people to eat less fat and more fibre, are totally inappropriate for children under two.

For the first six months, babies can get all the nutrients they need from breast milk or a reputable infant formula, with the World Health Organisation recommending they be exclusively <u>breastfed where</u> <u>possible</u>. But after this period, babies need to be started on high-quality <u>complementary foods</u> alongside <u>breast milk</u> or formula for at least the first year of life.

Their diet should comprise good sources of protein and fat, mixed with vegetables, fruits and cereals – although not too much fibre because it can be too filling without providing enough nutrients. They should have as little highly processed <u>food</u> as possible and no added salt. Sugar can be useful to help meet energy needs but should come as a component of foods that have lots of other nutrients. The more variety of foods a baby eats, the less likely they are to be lacking any nutrients.

It's a common myth that it's hard for vegans and vegetarians to get



enough protein. <u>Approximately half</u> of the protein that people in developed countries eat comes from plants. It's true that plants (except seeds) are predominantly made up of carbohydrates and (except soya) contain lower amounts of the essential amino acids that make up proteins. Whereas animal products (and soya) contain good amounts of these amino acids in a small portion of food.

But all this just means a plant-based diet should contain a mix of protein sources. For example, meals of baked beans on toast, peas and rice, and pasta and lentil "bolognase" would provide the variety babies need.

## Vitamins and minerals

What's more of an issue with a plant-based diet is getting enough of certain vitamins and minerals, such as iron, calcium, iodine, zinc and vitamins B12 and D. In plants, these minerals are not only restricted to certain sources but are also harder for the body to absorb because they can bind to the fibre in plants.

But because these vitamins and minerals are found in dairy and eggs, a varied vegetarian diet that includes these foods is unlikely to cause concerns, providing the baby has a good appetite.

Getting enough iron is a particular concern for babies once they start eating solid foods because they need <u>proportionately more</u> than older children and adults. Anaemia from a lack of iron is the most common nutrient deficiency around the world, and under-fives are <u>most</u> <u>vulnerable</u> to it. But babies can get iron from eggs, pulses such as lentils, nut butters (providing they aren't allergic), dark green vegetables such as broccoli, fortified cereals, fortified white flour and breast or formula milk.

However, things are more difficult for vegans. Even a varied vegan diet



has the potential to cause a range of problems for babies' growth and development. Not eating dairy or eggs removes an easy way to supply those vital vitamins and minerals. A <u>vegan diet</u> is also lower in fats (an important energy source for a small growing body) and may be lower in natural sugars because of the lack of milk, a natural source of the sugar lactose.

Without eating any <u>animal products</u>, the only reliable sources of vitamin B12 are <u>fortified foods or supplements</u>, and not getting enough of the vitamin can lead to <u>nerve damage</u>. Iodine is also difficult to come by, but is vital for <u>mental development</u>. You can buy iodised salt but this wouldn't be suitable for babies, and nor would iodine supplements because of the risk of giving them too much. One solution is to eat seaweed, which can be very versatile, although it can take some time to learn how to use it in the kitchen. Some plant milk alternatives are fortified with iodine, but not all of them.

## A plant-only diet is less than ideal

Children are surprisingly resilient. They survive in less than ideal circumstances. But what we really want is to encourage optimal growth and development based on the evidence. Relying on only plant-based foods to provide all a baby's needs is not out of the question, but is less than ideal.

We don't yet have enough evidence to say how current vegan practices affect babies' health at a population level. But it's not hard to find examples of vegan diets <u>being blamed</u> for a variety of child health problems. Research on children in the Netherlands being fed a particularly strict plant-based macrobiotic diet showed they suffered <u>nutrient deficiencies and retarded growth</u>, mainly between the ages of six and 18 months. There have even been incidents of vegan parents accused of child abuse related to <u>their children's poor growth</u>.



However, if parents have a sensible attitude and are well-established vegans, there is no reason why a baby cannot largely follow a varied, mainly <u>vegan diet</u>. This would ideally have limited amounts of bulky wholegrains and some occasional egg and milk to complement their plant-based foods.

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