



Vegetarian Nutrition

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RDN Resources for Consumers:

Vegetarian Infants

Babies can grow and develop normally if they are given a well-planned vegetarian diet.

Breast milk is the best food for a baby. Breast milk is the only food infants need until they are 6 months old. If breastfeeding is not possible, use a commercial cow's milk or soy based iron-fortified formula.

At 6 months, solid foods should be introduced. Breastfeeding, ideally, or formula feeding should continue until at least 1 year. Vegetarian diets, including lacto-ovo, lacto, or vegan, can meet the needs of older infants. Fruitarian and raw food diets are not recommended for babies. These diets may be too low in calories and nutrients.

Breastfeeding

Vegetarian women who are breastfeeding need to eat foods and/or use supplements that contain vitamin B12 every day. Foods that provide vitamin B12 include fortified nutritional yeast, fortified soymilk or other plant milks, fortified cereal, fortified meat analogs, and dairy products. Breastfed babies need to be given an infant vitamin B12 supplement if the mother is not eating foods fortified with vitamin B12 and/or using a supplement providing vitamin B12 every day.

Breast milk is low in vitamin D. The American Academy of Pediatrics (AAP) recommends that all breastfed infants be given vitamin D drops providing 400 IU of vitamin D per day starting soon after birth.

Iron is needed for growth and development. If the baby's stores of iron are low, iron supplements may be needed. If the local water source is not fluoridated, breastfed infants should be given fluoride supplements after age

6 months. Use of supplements, particularly iron and fluoride, should be discussed with your baby's doctor first.

Infant Formula

Commercial iron-fortified infant formulas should be used for infants who are not breastfed. These formulas are also used for infants who are weaned before they are 1 year old. Lacto-ovo and lacto vegetarian infants who are formula-fed usually use a formula based on cow's milk. Soy formula is the only option for vegan infants who are not breastfed.

Solid Foods

Around age 6 months, babies begin to show that they are ready for solid foods. They can move food from a spoon into their throat. They can keep their head upright, and sit with little support. Although in most cases it does not matter which food is introduced first, the first solid food for infants is often iron-fortified infant cereal. Some baby cereals are fortified with both zinc and iron; it is a good idea to choose these foods, as these nutrients can be low in vegetarian diets. Cereal can be mixed with breast milk or formula to make a good consistency. Use of iron-fortified foods such as infant cereal or formula should continue throughout the first year.

When first foods are well accepted, new foods can be introduced with one new food every 2-3 days. This way you can see if your baby has any unpleasant reaction to a new food. Mash or puree fruits and vegetables at first. Later, your baby can have soft or well-cooked fruits and vegetables. As your baby gets

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better at chewing, serve soft, cooked pasta or rice, soft breads, dry cereals, and crackers. When your baby is 7-8 months old, add foods like well-cooked and mashed or pureed dried beans, mashed tofu, soy or dairy yogurt, cooked eggs, and cottage cheese.

If you choose to make your own baby foods, be sure to:

- wash fruits or vegetables,
- cook foods thoroughly,
- blend or mash foods, and
- prepare foods without adding salt or seasoning.

Babies need to have enough calories and fat in order to grow properly. As babies move from a liquid diet to a more solid diet, using some higher calorie foods can help to meet their needs. Nutritious foods for older vegetarian babies include mashed tofu, bean spreads, avocado, and cooked dried fruits. Fat intake should not be limited. Fat sources for older infants include avocado, vegetable oils, butter and soft margarine.

Breast milk and infant formula both provide calcium. Older babies also get calcium from calcium-set tofu, cheese and dairy yogurt, calcium-fortified soy yogurt, dark green leafy vegetables, and broccoli.

Breast milk or infant formula should continue throughout the first year, even after solid foods have been introduced.

Foods to Avoid

Plant-based milk substitutes (such as soy, rice, or almond milk), homemade formulas, cow's milk (other than in formula), and goat's milk should not be used to replace breast milk or commercial infant formula during the first year. These foods do not have the right amounts of protein, fat, and carbohydrate. They do not have enough of many vitamins and minerals that a baby needs.

Nuts, nut butters, vegetarian hot dogs, chunks of hard raw fruits and vegetables, grapes, hard candies, and popcorn are choking risks. They should not be given to babies. Honey and corn syrup should not be given to infants under 1 year.

Sample Menu for an 11-month old Vegan Infant

Breakfast: 1/4 cup iron- and zinc-fortified infant cereal, 6 oz breast milk

Snack: 1/4 slice whole wheat bread

Lunch: 1/4 cup tofu cubes, 2 tbsp steamed chopped kale, 2 tbsp applesauce, 2 tbsp brown rice, 2 tbsp mashed avocado, 6 oz breast milk

Dinner: 1/4 cup iron- and zinc-fortified infant cereal, 6 oz breast milk, 2 tbsp mashed lentils, 2 tbsp mashed carrots, 2 tbsp mashed banana

Snack: 6 oz breast milk

Dietary Reference Intakes (DRIs) for Key Nutrients for Infants

Nutrient	DRI for 0-6 mo.	DRI for 7-12 mo.
Protein	1.52 g/kg/d*	1.2 g/kg/d
Vitamin C	40 mg/d*	50 mg/d*
Vitamin D	10 mcg/d	10 mcg/d
Vitamin B12	0.4 mcg/d*	0.5 mcg/d*
Calcium	200 mg/d*	260 mg/d*
Iron	0.27 mg/d*	11 mg/d
Zinc	2 mg/d*	3 mg/d

*Adequate Intake (AI); values without an asterisk are Recommended Dietary Allowances (RDA)

Resources

Feeding Vegan Kids by Reed Mangels, PhD, RD. <http://www.vrg.org/nutshell/kids.htm>, 2011.

Becoming Vegan Express Edition by Brenda Davis, RD and Vesanto Melina, MS, RD. Book Publishing Company, 2013.

Vegan for Life by Jack Norris, RD and Virginia Messina, MPH, RD. Da Capo Press Lifelong Books, 2011.

A registered dietitian can help you develop a healthy vegetarian eating plan that meets your needs.



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