Vegetarian Diet for Children and Teens

A well-planned vegetarian diet can provide all the calories, protein, vitamins and minerals a child needs to grow and develop. This handout will help you plan this diet for your child.

Types of Vegetarian Diets
There are many diet options for people who want to eat less meat. Vegetarian diets are named for the foods that are eaten.

- Semi-vegetarians, or flexitarians, eat a plant-based diet most of the time. They may include meat, poultry and fish every now and then.
- Pesco-vegetarians eat plants, dairy, eggs and fish. They avoid red meat and poultry.
- Lacto-ovo vegetarians eat plants, dairy and eggs. They avoid red meat, poultry and fish.
- Lacto-vegetarians eat plants and dairy. They avoid eggs, red meat, poultry and fish.
- Vegans eat only plant foods. They avoid all foods of animal origin.

A vegan diet is much more limited in food choices. You will need to plan your meals well to make sure your child gets the nutrients they need.

Calories
Your child needs calories from food to grow and develop. Vegetarian diets are often high in fiber, which can cause young children to feel full before they have eaten enough calories.

Ideas to Increase Calories
- Spread hummus or nut butters on breads, vegetables and fruits.
- Offer granola cereals and dried fruits.
- Add avocado, olives, nuts or seeds to dishes (be careful if you give nuts or seeds to children under 5 as these are choking hazards).
- Cook with healthy fats like olive oil or canola oil.
- Use beans and peas in stews, soups and casseroles. Prepare tofu or other meat substitutes.

Note: Just like diets that contain meat, vegetarian diets can be unhealthy if there are too many full-fat dairy products and refined starches.

Protein
Protein from food is used for building and maintaining body tissues. A well-planned vegetarian diet can provide enough protein. The key is to include different kinds of protein foods. This ensures that you get all the amino acids or protein building blocks that your body needs. Most cow milk substitutes (coconut, almond, rice milk), except soy milk, have only a small amount of protein.

<table>
<thead>
<tr>
<th>Plant Sources of Protein</th>
<th>Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (2.5 oz) soy/veggie burger</td>
<td>13-15 g</td>
</tr>
<tr>
<td>½ cup tofu</td>
<td>10 g</td>
</tr>
<tr>
<td>½ cup beans or lentils</td>
<td>8-10 g</td>
</tr>
<tr>
<td>¼ cup nuts or seeds</td>
<td>6-10 g</td>
</tr>
<tr>
<td>2 tbsp. nut butter</td>
<td>5-8 g</td>
</tr>
<tr>
<td>¼ cup hummus</td>
<td>5 g</td>
</tr>
</tbody>
</table>
Calcium
You need calcium for strong bones and teeth. Dairy products are the most common source of calcium. Leafy green vegetables, nuts and beans also contain small amounts. Fortified non-dairy milks, juices and cereals are also good ways to add calcium to a vegan diet.

**Daily Recommended Intake for Calcium**
- Age 1-3 years: 700 mg
- Age 4-8 years: 1000 mg
- Age 9-18 years: 1300 mg
- Pregnant or lactating girls < 19 yrs: 1300 mg

**Calcium Food Sources 100-150 mg**
- Cottage cheese, ½ cup
- Ice cream, frozen yogurt or pudding made with milk, ½ cup
- Cooked greens (spinach, collard greens, bok choy), ½ cup
- Cooked broccoli or soybeans (edamame), 1 cup
- Almonds, 30 whole nuts
- Blackstrap molasses, 1 Tbsp.

**Calcium Food Sources 250-300 mg**
- Cow’s milk, 1 cup
- Fortified soy, almond or rice milk, 1 cup
- Yogurt, 1 cup
- Fortified orange juice, 1 cup
- Tofu (made with calcium sulfate), ½ cup

**Calcium Food Sources 150-250 mg**
- Cheese, 1 oz
- Cheese pizza, 1 slice (1/8 of 15” pie)
- Macaroni and cheese from box, 1 cup
- Cream soup made with milk, 1 cup
- Au gratin potatoes, ½ cup
- Textured vegetable protein, ½ cup

Iron
Children require high amounts of iron. The iron in plant foods is not absorbed as well as the iron in animal foods. Try to include foods with vitamin C along with iron rich plant foods at the same meal. Vitamin C can help the body absorb more of the iron. Cooking with non-enameled cast iron pans may also help improve iron intake. If you give your child an iron supplement, do not give it with dairy products, which can limit the amount of iron that is absorbed.

**Food Sources High in Vitamin C**
- Broccoli
- Strawberries
- Citrus fruits and juices
- Melons
- Baked potatoes
- Spinach
- Tomatoes
- Kiwi

**Daily Recommended Intake for Iron**
- Age 1-3 years: 7 mg
- Age 4-8 years: 10 mg
- Age 9-13 years: 8 mg
- Age 14-18 years:
  - Males: 11 mg
  - Females: 15 mg
- Pregnant or lactating girls < 19 yrs: 27 mg
### Iron Sources 2+ mg

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bran flakes, ¼ cup</td>
<td></td>
</tr>
<tr>
<td>Oatmeal (fortified), ¾ cup</td>
<td></td>
</tr>
<tr>
<td>Cream of wheat, ½ cup</td>
<td></td>
</tr>
<tr>
<td>Baked potato with skin, 1 medium</td>
<td></td>
</tr>
<tr>
<td>Lentils, kidney, lima or navy beans, ½ cup cooked</td>
<td></td>
</tr>
<tr>
<td>Soybeans, ½ cup</td>
<td></td>
</tr>
<tr>
<td>Tofu, ½ cup</td>
<td></td>
</tr>
<tr>
<td>Spinach, 1 cup</td>
<td></td>
</tr>
<tr>
<td>Dried prunes, 4 pieces</td>
<td></td>
</tr>
</tbody>
</table>

### Iron Sources 1-2 mg

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kale, 1 cup cooked</td>
<td></td>
</tr>
<tr>
<td>Dried apricots, 7 halves</td>
<td></td>
</tr>
<tr>
<td>Raisins, 5 tbsp.</td>
<td></td>
</tr>
<tr>
<td>Whole wheat bread, 1 slice</td>
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</tr>
<tr>
<td>Cashews, walnuts, brazil nuts, 1 oz</td>
<td></td>
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</tbody>
</table>

### Zinc

Meats are the best source of zinc in our diets. Nuts, beans, wheat germ, tofu, dairy products and whole grain pastas, cereals, and breads also supply zinc. Enriched bread products are not good sources of zinc.

### Vitamins

Children who eat many types of fruits and vegetables as well as whole grains, beans, nuts and seeds should be getting enough of most essential vitamins. Vitamin B12 and vitamin D are exceptions.

### Vitamin B12

Vitamin B12 is found only in animal products. A vegetarian diet including milk products and/or eggs will supply enough B12. Children who follow a vegan diet (no animal products) will need to take a B12 supplement or eat food products that have added B12.

#### Products Fortified with Vitamin B12

- Some non-dairy milks.
- Ready-to-eat breakfast cereals.
- Meat substitutes (such as veggie burgers).
- Nutritional yeast (Red Star Vegetarian Support Formula). Note that non-supplemented yeasts do not contain vitamin B12. Although it may take months or years for a B12 deficiency to appear, it is very serious.

### Vitamin D

The body can make vitamin D when skin is exposed to sunlight. Most children need to take a vitamin D supplement, especially in the winter. Ask your health care provider or dietitian.

#### Food Sources of Vitamin D

<table>
<thead>
<tr>
<th>Food Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortified milk</td>
</tr>
<tr>
<td>Fortified ready-to-eat cereals</td>
</tr>
<tr>
<td>Some mushrooms</td>
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<tr>
<td>Fatty fish like salmon</td>
</tr>
</tbody>
</table>

### Summary

Give your child many types of foods like fruits, vegetables, whole grain breads and cereals, legumes, nuts and seeds, milk and cheese.

For the first few months of life, feed infants breast milk or commercial soy or cow’s milk formula alone. This will provide the nutrition they need.

Continue to supplement the diet with breast milk or formula until about 12 months of age. This will make sure they get the protein they need.
Use whole grain products to increase intake of iron, zinc and fiber. Some examples of whole grains are whole wheat, bulgur, barley, brown rice, cornmeal and oatmeal.

Consult a dietitian/nutritionist to help you plan a vegetarian diet that is right for your family and fulfills your child’s nutrient needs.

**Vegetarian Meal Planning Guide (By Age)**

<table>
<thead>
<tr>
<th>Age</th>
<th>Grains*</th>
<th>Vegetables</th>
<th>Fruits</th>
<th>Protein**</th>
<th>Dairy***</th>
<th>Fats</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 Years</td>
<td>3 servings</td>
<td>1 cup</td>
<td>1 cup</td>
<td>2 ounces</td>
<td>2 cups</td>
<td>3 tsp</td>
</tr>
<tr>
<td>4-8 Years</td>
<td>5 servings</td>
<td>1 ½ cups</td>
<td>1-1 ½ cups</td>
<td>4 ounces</td>
<td>2 ½ cups</td>
<td>4 tsp</td>
</tr>
<tr>
<td>9-13 Years</td>
<td>5-6 servings</td>
<td>2-2 ½ cups</td>
<td>1 ½ cups</td>
<td>5 ounces</td>
<td>3 cups</td>
<td>5 tsp</td>
</tr>
<tr>
<td>14-18 Years</td>
<td>6-8 servings</td>
<td>2 ½-3 cups</td>
<td>1 ½-2 cups</td>
<td>5-6 ½ ounces</td>
<td>3 cups</td>
<td>5-6 tsp</td>
</tr>
</tbody>
</table>

* 1 Serving of Grains:
  - ½ cup cooked cereal, pasta, or rice
  - 1 slice bread
  - 1 cup cereal

** 1 Ounce of Protein:
  - ¼ cup cooked beans, tofu, tempeh, or textured vegetable protein
  - 1 egg
  - 1 Tbsp of peanut or nut butters
  - 2 Tbsp hummus
  - 12 large nuts
  - 24 small nuts

*** Use whole milk in children less than 2 years of age to meet fat needs.

Go to [www.choosemyplate.gov](http://www.choosemyplate.gov) to find out more about sizes and to learn more about servings for legumes, nuts and seeds.

To find out more about vegetarian diets and recipes:
The Academy of Nutrition and Dietetics Vegetarian Resource Site at [http://www.vegetariannutrition.net](http://www.vegetariannutrition.net) has information on different vegetarian diets, cookbooks, websites, and other resources.

Kids Health at [http://www.kidshealth.org](http://www.kidshealth.org) (search for “vegetarian”)


Check out your local library for access to vegetarian cookbooks.
Teach Back:
What is the most important thing you learned from this handout?
What changes will you make in your diet/lifestyle, based on what you learned today?

If you are a UW Health patient and have more questions please contact UW Health at one of the phone numbers listed below. You can also visit our website at www.uwhealth.org/nutrition.

Nutrition clinics for UW Hospital and Clinics (UWHC) and American Family Children’s Hospital (AFCH) can be reached at: (608) 890-5500. Nutrition clinics for UW Medical Foundation (UWMF) can be reached at: (608) 287-2770.

If you are a patient receiving care at UnityPoint – Meriter, Swedish American or a health system outside of UW Health, please use the phone numbers provided in your discharge instructions for any questions or concerns.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 3/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Clinical Nutrition Services Department and the Department of Nursing. HF#198