

# Health Facts for you

# **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.

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 helps build and maintain 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.

| <b>Plant Sources of Protein</b> | Protein |
|---------------------------------|---------|
| 1 (2.5 oz) soy/veggie burger    | 13-15 g |
| 1/2 cup tofu                    | 10 g    |
| ½ cup beans or lentils          | 8-10 g  |
| ½ cup nuts or seeds             | 6-10 g  |
| 2 Tbsp nut butter               | 5-8 g   |
| ½ cup hummus                    | 5 g     |
| 1 cup soy or pea milk           | 8 g     |

| <b>Animal Sources of Protein</b> | Protein |
|----------------------------------|---------|
| 1/2 cup cottage cheese           | 12 g    |
| 6 oz container yogurt            | 5-12 g  |
| 1 cup cow milk                   | 8 g     |
| 1 ounce cheese                   | 7 g     |
| 1 egg                            | 6 g     |

#### Calcium

You need calcium for strong bones and teeth. Dairy products are the most common sources. 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 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 < | 1300 mg |
| 19 yrs                        | _       |

#### Calcium Food Sources 250-300 mg

- Cow's milk, 1 cup
- Fortified soy, almond, 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

## 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, soybeans/edamame 1 cup
- Almonds, 30 whole nuts
- Blackstrap molasses, 1 Tbsp.

#### 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 the body absorbs.

# Food Sources High in Vitamin C

- Broccoli
- Strawberries
- Citrus fruits and juices
- Melons
- Baked potatoes
- Spinach
- Tomatoes
- Kiwi

# Daily 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               |       |
| <ul> <li>Males</li> </ul>     | 11 mg |
| <ul><li>Females</li></ul>     | 15 mg |
| Pregnant or lactating girls < | 27 mg |
| 19 yrs                        |       |

# Iron Sources 2+ mg

- Bran flakes, <sup>3</sup>/<sub>4</sub> cup
- Oatmeal (fortified), <sup>3</sup>/<sub>4</sub> cup
- Cream of wheat, ½ cup
- Baked potato with skin, 1 medium
- Lentils, kidney, lima or navy beans, ½ cup cooked
- Soybeans, ½ cup
- Tofu, ½ cup
- Spinach, 1 cup
- Dried prunes/plums, 4 pieces

## **Iron Sources 1-2 mg**

- Kale, 1 cup cooked
- Dried apricots, 7 halves
- Raisins, 5 tbsp.
- Whole wheat bread, 1 slice
- Cashews, walnuts, brazil nuts, 1 oz

#### 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 that includes 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). Nonsupplemented 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

- Fortified milk
- Fortified ready-to-eat cereals
- Some mushrooms
- Fatty fish like salmon

#### Tips

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 store-bought soy or cow's milk formula alone. This will provide the nutrition they need.

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. Whole grains include 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)

# 2-3 Years

Grains\* 3 servings
Vegetables 1 cup
Fruits 1 cup
Protein\*\* 2 ounces
Dairy 2 cups
Fats 3 tsp

#### 4-8 Years

Grains\* 5 servings
Vegetables 1 ½ cups
Fruits 1-1 ½ cups
Protein\*\* 4 ounces
Dairy 2 ½ cups
Fats 4 tsp

#### **9-13 Years**

Grains\* 5-6 servings
Vegetables 2-2 ½ cups
Fruits 1½ cups
Protein\*\* 5 ounces
Dairy 3 cups
Fats 5 tsp

#### 14-18 Years

Grains\* 6-8 servings
Vegetables 2 ½-3 cups
Fruits 1 ½-2 cups
Protein\*\* 5-6 ½ ounces

Dairy 3 cups Fats 5-6 tsp

# \*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 <u>www.choosemyplate.gov</u> 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 <a href="http://www.vegetariannutrition.net">http://www.vegetariannutrition.net</a> has information on different vegetarian diets, cookbooks, websites, and other resources.

Kids Health at <a href="http://www.kidshealth.org">http://www.kidshealth.org</a> (search for "vegetarian")

The Vegetarian Resource group at <a href="http://www.vrg.org/">http://www.vrg.org/</a>

Check out your local library for access to vegetarian cookbooks.

#### Who to Call

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 <a href="https://www.uwhealth.org/nutrition">www.uwhealth.org/nutrition</a>.

Nutrition clinics for UW Hospital and American Family Children's (608) 890-5500

Nutrition clinics for UW Medical Foundation (608) 287-2770

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 © 8/2020. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Clinical Nutrition Services Department and the Department of Nursing. HF#198