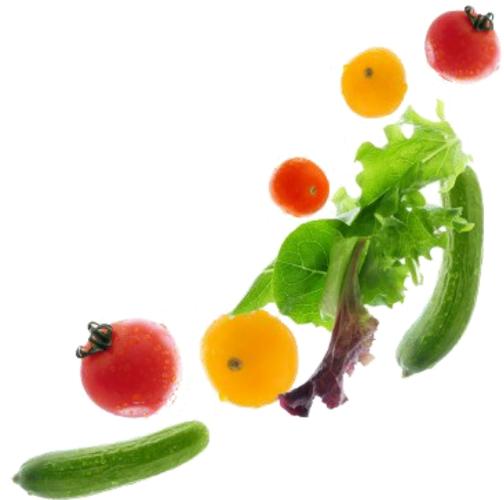




Vegetarian Kids

A meal without meat
can be nutritious and tasty!



Sources:

Nemours Foundation: Kids Health

www.cdc.gov/nutrition/everyone

USDA Choose MyPlate.gov

Mealtime Memo for Child Care No.3, 2010

www.vegetarianNutrition.net (a dietetic practice group of the American Dietetic Association)

www.health.harvard.edu/newsweek/Listing_of_vitamins

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Types of Vegetarian Diets

A vegetarian is someone who doesn't eat meat, and mostly eats foods that come from plants: grains, fruits, vegetables, nuts and seeds. Vegetarian diets vary in flexibility.

Many Types of Vegetarians:

- ◆ **Semi-vegetarian:** a person who eats fish and chicken, but no meat.
- ◆ **Pesci-vegetarian:** a person who eats fish, no chicken or meat.
- ◆ **Lacto-ovo vegetarian:** a person who eats dairy products (milk, cheese) and eggs, but no meat, chicken or fish.
- ◆ **Ovo-vegetarian:** a person who eats eggs, but no meat, chicken, fish, or dairy products.
- ◆ **Lacto-vegetarian:** a person who eats dairy, but no meat or eggs, fish, or chicken.
- ◆ **Vegan:** a person who eats no meat or animal products.

Why People Want to Eat Less Meat

Vegetarian eating is part of human history and common before modern refrigeration. The increase of meat consumption is a relatively new phenomenon of modern food production and storage. Today, the motivation to eat a vegetarian diet comes from many different sources.

Ethical: Some people are opposed to the killing of animals for food. By producing less meat for food, world agriculture could produce more food for hungry people:

- ◇ One acre of land can produce 40,000 pounds of potatoes, or 250 pounds of beef.
- ◇ Each pound of beef requires 16 pounds of edible grain and soybeans.
- ◇ Eighty percent of the corn and 95% of the oats grown in the U.S. is eaten by livestock.

Financial: It is estimated that the cost of meat accounts for about one-third the average food bill. Most plant foods are less expensive than animal foods.

Environmental: The United Nations' Food and Agriculture Organization estimates the meat industry generates nearly one-fifth of the man-made greenhouse gas emissions .

- ◇ Meat production produces more greenhouse gasses than cars or trucks.
- ◇ The water needs of livestock are tremendous, far above those of vegetables or grains.
- ◇ Moderating meat consumption is a great way to cut fossil fuel demand.

Religious: Some religious groups have traditionally been vegetarian.

Health: Following a vegetarian diet may reduce your risk of chronic preventable conditions like cancer, cardiovascular disease, diabetes and obesity.

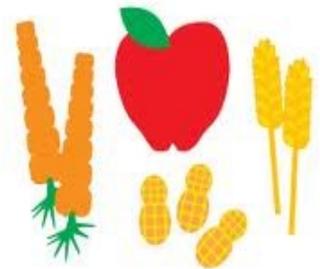
- ◇ Hundreds of studies suggest that diets high in fruits and vegetables may reduce cancer risk. Both red and processed meat consumption are associated with colon cancer.
- ◇ Recent data from a Harvard University study found that replacing saturated fat-rich foods (for example, meat and full fat dairy) with foods that are rich in polyunsaturated fat (for example, vegetable oils, nuts and seeds) reduces the risk of heart disease by 19%.
- ◇ Research suggests that higher consumption of red and processed meat increase the risk of type 2 diabetes.
- ◇ People on low-meat or vegetarian diets have significantly lower body weights and body mass.
- ◇ Consuming dried beans or legumes results in higher intakes of fiber, protein, folate, zinc, iron and magnesium with lower intakes of saturated fat and total fat.

It's Easier Than Ever: Supermarkets provide a great variety of vegetables, and a wider variety of dried beans and grains. Restaurants are more likely to offer vegetarian options.

Nutrition for All

Vegetarian diets can meet all the recommendations for nutrients. The key is to eat a variety of foods to meet your needs. A well-planned vegetarian diet can meet the nutritional needs of children.

Children can be vegetarian, but they can't do it alone. They need grown-ups to help make sure they get the vitamins, minerals and protein they need. It wouldn't be healthy for children to stop eating meat without having an adult help them with some dietary changes.



Children who are vegetarian can get all the nutrients they need, especially following the less restrictive “ovo-lacto vegetarian” diet that includes dairy and eggs. The more foods that are off-limits, the harder it can be for anyone to get proper nutrition.

If you are caring for a child from a vegetarian family who wants their child to be served non-dairy milk, such as soy milk, you will need a written request from the parents on file. Please forward a copy to the YFCI office.

Nutrient Focus for Vegetarian Diets

Protein: Protein has many important functions in the body and is essential for growth and maintenance. Protein is part of every cell in the body and is an important part of hemoglobin in the blood.

Iron: Your body needs oxygen to stay alive. The body can't use oxygen, though, without iron! Iron is an important part of hemoglobin, the part of your red blood cells that carries oxygen throughout the body. This is especially important for the young growing brain.

Calcium & Vitamin D: Calcium helps your body build strong bones and teeth. Calcium also regulates heart function. Vitamin D helps calcium get into your bones. Your body can actually make Vitamin D when exposed to sunlight. With just 15 minutes a day playing outside without sunscreen, your body can make enough Vitamin D to meet daily requirements.

Zinc: Zinc helps your immune system function properly and helps cells grow. Zinc also helps the body heal cuts and scrapes.

Vitamin B12: Your body needs vitamin B12 to help build DNA and red blood cells. It also helps make your nerve cells work.

Nutrient	Non-Meat Food Sources
Protein	Legumes, dried beans, soy beans, peanut and other nut butters, dairy products, eggs; grains and many vegetables supply some protein to the diet.
Calcium	Dairy products, dark green leafy vegetables, broccoli, fortified orange juice.
Vitamin D	Fortified dairy products and some fortified breakfast cereals. Sunshine.
Iron	Eggs, dried beans, legumes, whole grains, iron-fortified cereals and breads, green leafy vegetables.
Vitamin B12	Eggs, dairy products, B12 fortified cereals and breads, nutritional yeast.
Zinc	Legumes, hard cheeses, whole grains, wheat germ, nuts, fortified cereals.



How Much Protein Do We Need?

Since protein in our food comes from both animal and plant sources, most Americans have no trouble getting enough protein. In fact, many of us eat 1 –2 times more protein than our bodies require for good health.

Maybe you have wondered how much protein you need each day. In general, it is recommended that between 10—35% of your daily calories come from protein.

Recommended Daily Allowance for Protein	
Age	Grams of protein needed each day
Children ages 1-3	13
Children ages 4-8	19
Children ages 9-13	34
Girls, ages 14-18	46
Boys, ages 14-18	52
Women, ages 19-70+	46
Men, ages 19-70+	56

Here are examples of protein in food:

- ◆ 1 cup of milk has 8 grams of protein
- ◆ 1/2 cup of dry beans such as kidney beans has 8 grams of protein
- ◆ 6 ounces of yogurt has 9 grams of protein
- ◆ 1 egg has 6 grams of protein
- ◆ 1/2 cup of broccoli has 2 grams of protein

The combination of these sources supplies adequate protein for children. This doesn't take into account other sources of protein such as from grains, that children eat during the day.

Rather than focusing on protein numbers, encourage an overall healthy eating plan that includes a variety of foods that supply all the nutrients a child needs.

Nutrient Packed Fruits, Vegetables, Whole Grains, and Dairy

In addition to providing the nutrients of protein, iron, calcium, zinc, vitamin D and B12, non-meat foods provide many other nutrients. Whether you choose a type of vegetarian diet or not, including in your diet a wide variety of fruits, vegetables, whole grains, and low-fat dairy supply these additional important nutrients:

Vitamin & Minerals	Benefit	Good Sources
Vitamin A	Essential for vision, keeps skin healthy.	Carrots, squash, sweet potato, dark green leafy vegetables, broccoli, bell peppers
Vitamin C	Helps support healthy skin and wound healing. May lower risk of some cancers	Citrus fruits, fruits such as cantaloupe and berries, broccoli, potatoes, bell peppers, tomatoes
Folic Acid	Vital for new cell creation. Important for women of child-bearing age.	Fortified grains, spinach, legumes like garbanzo beans and black eyed peas
Thiamin (B ₁)	Helps convert food into energy.	Soy beans and other legumes, barley, wheat germ, watermelon, acorn squash
Riboflavin (B ₂)	Helps convert food into energy.	Milk, yogurt, whole grains, mushrooms,
Vitamin E	Acts as an antioxidant protecting against cell damage.	Unsaturated vegetable oils, nuts, wheat germ, leafy vegetables, whole grains
Niacin	Helps convert food into energy. Essential for healthy skin and nerves	Whole grains, lentils, mushrooms, potatoes, cottage cheese
Vitamin B ₆	Plays a key role in sleep, appetite, and mood	Legumes, soy beans, spinach, kale, bananas, avocados
Magnesium	Works with calcium in muscle contraction. Helps build bones and teeth.	Spinach, broccoli, legumes, nuts and seeds, whole wheat bread

Animal vs. Plant Protein

Complete proteins are from animal sources and have all essential amino acids—the building blocks of all our cells. Plant protein sources do not have all the essential amino acids in each food, but are easily combined to make a complete protein.

You don't need to combine proteins together at every meal. As long as you get a variety of proteins throughout the day, you'll get ample amounts of each amino acid.

What are legumes?

Legumes are plants with seed pods that split into two halves when ripe. Edible seeds from plants in the legume family include dried beans, dried peas, lentils, soybeans, and peanuts.

The legume family is the third largest among flowering plants. It is also the second most important to the human diet (grasses, such as rice, are first).

Legume seeds have twice as much protein as grains. Legumes are also high in iron and B vitamins. Grains and legumes are called complementary proteins because when you combine them, you get all of essential amino acids. Nuts and seeds are also complementary to legumes to provide essential amino acids.



Easy combinations that make complete protein dishes:

Rice and Red Beans

Home Made Macaroni and Cheese

Black Beans and Tortillas

Peanut Butter* and Whole Wheat Bread

Lentil Soup and Crackers

Hummus and Pita Bread

* Peanut butter is not to be served to children under the age of 3 due to choking hazard.

Presently, CACFP guidelines do not credit tofu or tempeh as there is no standard of identity and could vary from manufacturer to manufacturer.

Recipes for Vegetarian Kids Good for Everyone!

You may successfully use canned beans/lentils for any of the following recipes. If using canned beans, please rinse using running water to reduce sodium.

If you are using dry beans, follow a soaking method before cooking. For every pound of dry beans, any variety, add 10 cups of hot water with beans to a large pot. You may add a teaspoon of salt that helps the beans absorb more water. Heat to boiling and let boil gently for 2-3 minutes. Remove from heat, cover and let stand for at least 1 hour (quick soak method) Best method is to cover and refrigerate at least 4 hours, or overnight. The longer soaking will make the beans easier to digest.

To cook soaked beans, drain the soaking water and discard. Rinse beans and cook in a good size pot with 6 cups of water until desired tenderness. Simmer slowly to avoid breaking skins.

Vegetarian Chili

- 1 Tbs. olive oil
- 1 large onion, chopped
- 1 medium green pepper, seeded and chopped
- 2 cloves garlic, finely chopped
- 1 Tbs. chili powder
- 1 tsp. cumin
- 2 cans (15 oz. each) black beans or kidney beans, drained and rinsed
- 2 cans (14.5 oz. each) fire roasted or plain diced tomatoes, un-drained
- 1 cup water
- 1 cup frozen sweet corn
- ½ plain yogurt
- Shredded cheddar cheese, optional
- Chopped cilantro, optional



In large pot, sauté onions, pepper, and garlic until tender, about 5-7 minutes. Add chili powder and cumin. Heat 1 minute.

Stir in beans, tomatoes, and water. Heat to boiling. Reduce heat and simmer, covered, for 30 minutes, stirring occasionally. Stir in corn, heat to boiling then reduce heat and simmer for 5 minutes longer. Stir in yogurt to blend. Serve with shredded cheese and cilantro, if desired.

8 servings for 3-5 year olds.

A ¾ cup serving provides 1½ ounce meat/meat alternate and 1 vegetable serving at lunch/supper. Can also be used as a taco or burrito filling.

Adapted from USDA recipes for Child Care NFSMI

Bean Dip

1 can (15 ounce) kidney or pinto beans, drained
1/2 red onion finely chopped
2 tsp. balsamic vinegar
1 Tbs. orange juice
1 garlic glove crushed
Salt and pepper to taste

Combine all ingredients in a blender or food processor. Blend or process until smooth.

12 (1/4 cup) servings for 3-5 year olds.
Each serving provides 1/2 ounce meat/meat alternate at snack



Recipe from Potpourri

Tuscan White Bean Soup

1 1/2 cups chopped onion
3 cloves minced garlic
1 Tbs. olive oil
2 tsp. rosemary
1/2 tsp. thyme
8 cups vegetable or chicken broth
3 cans (15 ounces each) Cannellini or Great Northern beans, drained and rinsed
Pepper to taste

Sauté onion and garlic in the olive oil in a large saucepan over medium heat until soft, stirring frequently, about 7 minutes. Add seasonings, broth and beans. Bring to a boil.

Reduce heat and simmer covered for 15-20 minutes. For a thicker soup, put 2/3 of mixture into blender or food processor and puree. Stir puree back into soup.



9-1 cup servings for 3-5 year olds.

**Each serving provides 1 1/2 ounce meat/
meat alternate at lunch/supper.**

A Cookbook Collection from Around the World

Lentil Patties

Make it yourself veggie burger! Better than ones purchased from the supermarket!

- 4 cups cooked lentils
- 1 cup shredded carrots
- 1 cup finely minced onions or scallions
- ½ cup oatmeal
- 2 eggs
- 1 tsp. poultry seasoning or seasoning blend of your taste



Combine all ingredients, cover and refrigerate overnight. Mixture should be like “play dough”-if too stiff add a bit of water. Form into 12 patties and sauté in 1 Tbs. olive oil for 5 minutes per side or bake a 375° F. for 12-15 minutes turning half way through the cooking time.

12 (1 patty) servings for 3-5 year olds.
Each serving provides 1½ ounce meat/meat alternate for lunch/supper

Recipe adapted from Meals to Please

Commercially prepared “veggie burgers” include ingredients that do not add to the protein content. These products credit for approximately 1/3 of the meat/meat alternate in a meal. Serve and record commercially prepared “veggie burgers” with an additional meat/meat alternate to credit at lunch/supper.

Egg Filling for Tacos or Burritos



- 6 eggs
- 1 Tbs. butter or olive oil
- 6 Tbs. chunky salsa
- 12 Tbs. Shredded cheddar cheese
- 6 taco shells or tortillas

Beat eggs. Heat butter or olive oil in skillet over medium heat. Add eggs and scramble until set but still moist. Add salsa and shredded cheese to egg mixture. Fold together to melt cheese. Spoon scrambled

egg mixture into taco shells or tortillas. Serve with extra salsa if desired.

6 (1 egg each) servings for 3-5 year olds
Each serving provides 1½ ounce meat/meat alternate at lunch/supper

Kids in the Kitchen!



Smoothies are very healthy and kids can make them easily. Provide the ingredients and they can make them with minimal help from adults. The only kitchen equipment needed is a blender. For safety, make sure the children understand never to stick hands or utensils into the blender while it is churning. It is best that the adult cuts up the fruit for the smoothies.

Yogurt Fruit Smoothie

Greek yogurt has been strained to remove liquid whey and gives a creamy texture to smoothies. The protein in yogurt helps keep children full longer, good especially for afternoon snacks.

6 ounces Greek yogurt

1½ cup fruit—frozen if possible

¼ cup water (or milk or orange juice)

3-4 ice cubes if fruit is unfrozen

Sweeten with 1 Tbs. of honey* if using plain yogurt

You can use any combination of fruits; let children help you decide. Some suggestions:

Strawberries and kiwis

Strawberries and bananas

Pineapple and mango

Blueberries and pear

3 (¾ cup) servings for 3-5year olds

A serving provides 1 fruit and 1 meat alternate at snack.

* Do not serve honey to children under the age of 1, due to danger of botulism. Use an alternate sweetener if needed.



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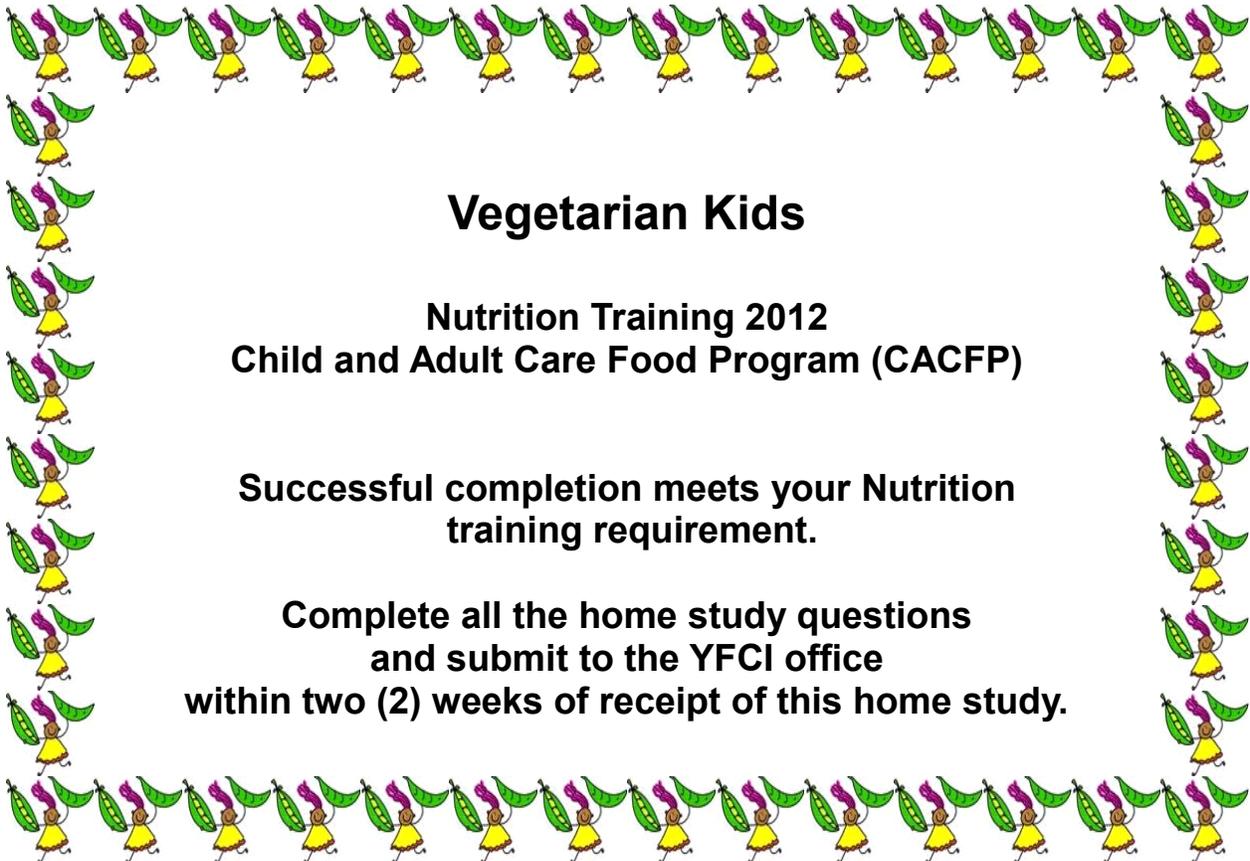
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***Vegetarian Kids
May 2012***

TO:

***Nutrition Training
FY 2012***



Vegetarian Kids

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**Complete all the home study questions
and submit to the YFCI office
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