

The University of North Texas
Dining Services
White Paper: A Vegetarian Diet

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What is a Vegetarian?

A vegetarian is a person who does not eat meat (including fowl) or seafood, or products containing these foods (1). People who follow a vegetarian diet never or rarely eat meat, fish, or poultry (2). It is the position of the American Dietetic Association that vegetarian diets are healthful and nutritionally adequate when appropriately planned, and provide health benefits for the prevention and treatment of some diseases. It is estimated that 2-6% of American adults consume only vegetarian diets (3). There are many reasons people choose a vegan or vegetarian diet: health, environmental reasons, ethical reasons, religious or cultural influences, political reasons, or taste preferences and variety. Certain religions have beliefs requiring specific dietary restrictions which could include animal products. Others choose a vegetarian lifestyle because of their views on animal rights and concerns for the treatment of animals.

Types of Vegetarians

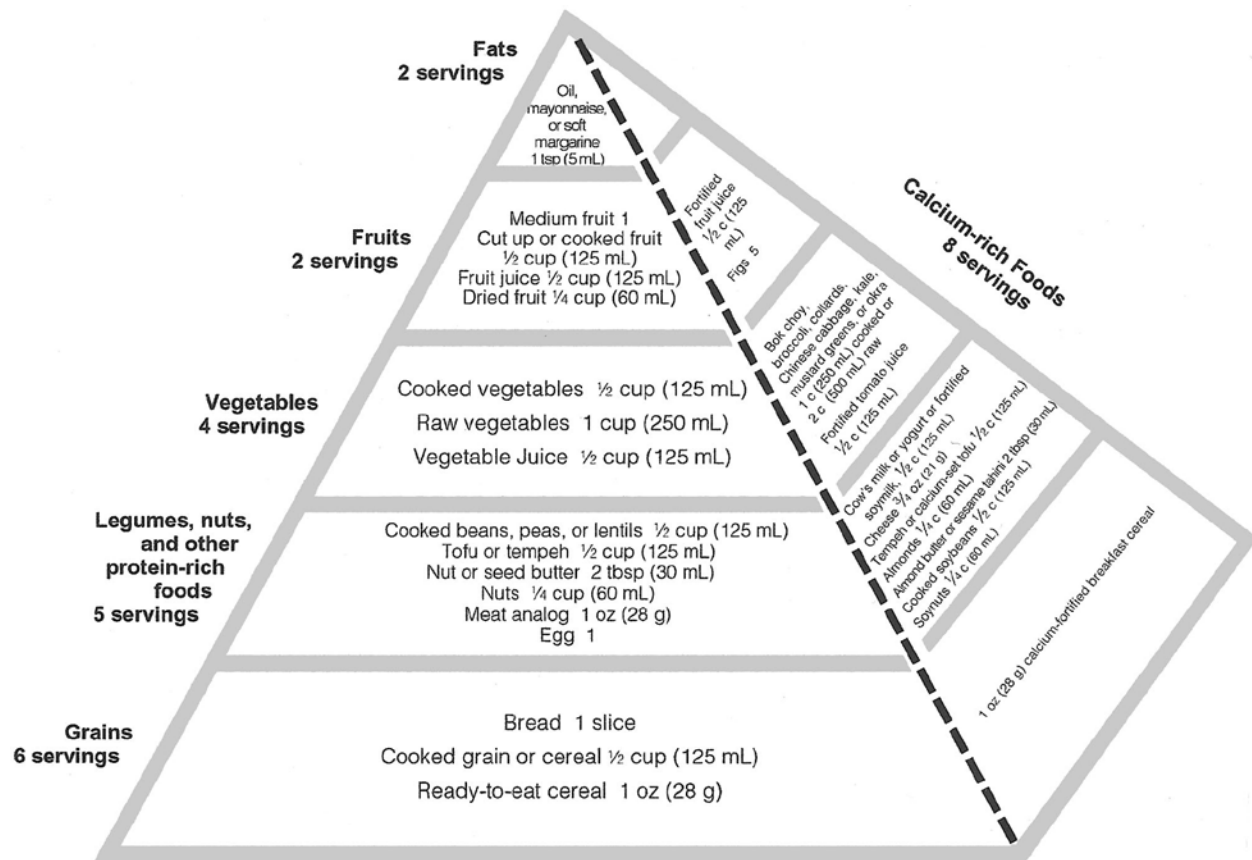
There are different types of vegetarians. Some vegetarians eat dairy products while other vegetarians eat fish or poultry. The chart below outlines the different types of vegetarian diets:

Type of Vegetarian	Diet Includes:	Diet Excludes:
Lacto-Ovo	Milk and dairy products Eggs	Meat, fish, and poultry
Lacto	Milk and dairy products	Meat, fish, and poultry Eggs
Semi or Partial	Occasionally eats fish or poultry, dairy products, eggs	Red meat
Vegan	Vegetables and fruit Grains	All products made from animals

	Seeds, nuts, and beans	
Macrobiotic	Vegetables and fruit	Processed sweeteners
	Grains	Some vegetables
	Seeds, nuts, and beans	Red meat

A Vegetarian Diet

A healthy vegetarian or vegan diet consists primarily of plant based foods such as fruits, vegetables, whole grains, legumes, nuts, and seeds. The illustration below is an example of a vegetarian food guide pyramid:



Source: http://www.metabolicdiet.com/pdfs/veg_food_guide.pdf

Meal Planning

A vegetarian diet should consist of a variety of foods in order to meet nutritional needs. The diet should be plant-based and foods should be an array of colors. Some nutrients that are commonly found in animal proteins should be consumed in other forms in order to avoid a nutritional deficiency.

Health Benefits of a Vegetarian Diet

Vegetarians consume higher amounts of fiber and vegetables compared to non-vegetarians which can contribute to positive health effects. Studies show that vegetarian and vegan diets may lower rates of heart disease and can lower the risk of developing type 2 diabetes, certain cancers, and obesity. Vegetarians also have lower blood pressures as compared with non-vegetarians (4, 5). As previously stated, a vegan and vegetarian diet can be nutritionally adequate if properly planned. However, with the elimination of animal products and the restriction of animal by-products, vegans should be hyper vigilant in making sure they have a nutritionally balanced diet. The following are some potential nutritional concerns for vegans that may aid in achieving a balanced diet.

Nutritional Concerns for Vegetarians

Calcium

Vegetarians should consume foods high in calcium in order to obtain their daily calcium needs (1000-1500 mg/day for adults). If a vegetarian diet excludes milk and dairy products, other sources of dietary calcium are needed. Good examples of foods containing calcium include collard greens, kale, tofu prepared with calcium, fortified soy or rice milk, or fortified orange juice.

Vitamin D

Vitamin D is a fat-soluble vitamin not commonly present in a vegetarian diet. Vitamin D deficiency can contribute to diminished bone health. The good news is vitamin D can be

absorbed through sunlight. Vegetarians can meet their recommended amount of Vitamin D by 15-20 minutes of sunlight exposure each day or increased intake of vitamin D fortified foods.

Iron

Iron exists in either a heme or non-heme form. Non-heme iron is found in plant sources and may not be as usable as its meat counterpart. Inhibitors of iron absorption include phytates (found in plants), calcium, tea, and coffee. Vitamin C found in fruits and vegetables may enhance the absorption of iron from plants (1).

Vitamin B-12

Vegans and vegetarians may have less than adequate vitamin B-12 status because of the lack of its presence in plant based foods. Regular use of vitamin B-12 sources, such as fortified foods or supplements, should be included in a vegetarian diet (1).

Omega-3 Fatty Acids

Vegetarians may not get the required amount of the omega-3 fatty acids, EPA and DHA, given their lack of fish consumption. Vegetarians should consume good sources of fatty acids such as flaxseed, walnuts, canola oil, and soy. A microalgae based omega-3 fatty acids supplement might also be considered (1).

Protein

Contrary to some notions, protein needs can be met on a plant based diet with an assortment of plant foods eaten throughout the day. A vegetarian diet consisting of a mixture of proteins from unrefined grains, legumes, seeds, and vegetables should provide all of the essential amino acids needed (1).

Trends

According to a nationwide poll in 2006, approximately 2.3% (4.9 million people) of the US adult population consistently followed a vegetarian diet, and about 1.4% of the US adult population

was vegan (1). Restaurants are offering more vegetarian and vegan options and more university foodservices are offering meatless options. In a survey of UNT students, 15% of the responders were vegetarian and 5% were vegan.

Being Vegetarian at UNT

Vegan entrees and options are labeled with a “V” on the nutrition cards located by each food item in each cafeteria. Vegetarian entrees are served daily in the cafeterias. If an entrée is labeled vegan, it is also vegetarian, but a vegetarian option is not always vegan. Foods are also labeled for other ingredients they contain such as soy, wheat, eggs, meat, dairy, and nuts. Salad bars are located in each of the six cafeterias and a variety of vegetables are offered daily. Legumes, nuts, seeds, and beans are often available in each cafeteria. All cafeterias on campus have selections for vegetarians. Bruce Hall, Maple Hall, and West Hall all offer about 70% of their menu as vegetarian options. Victory Hall and Kerr Hall offer roughly 60% of their menu as vegetarian options, which includes entrees, vegetables, and items from the salad bar. Planning a vegetarian diet in the cafeterias at UNT is very possible. Preparation on the students’ part is needed. We suggest looking at the menu online at <http://dining.unt.edu/residents/menus.html> prior to going to the cafeteria to help assure a vegetarian option will be available. If a nutrition card is not available on the food being served or the student has questions about the food preparation, a manager is always available for assistance. If a student is still concerned about food preparation of the item, he or she can ask for the food to be prepared a different way as long as the ingredients needed are available in the cafeteria. Students should refrain from sharing or eating from other students plates in the cafeteria to avoid consumption of a non-vegetarian food item. If a student is unsure of the ingredients of the food, avoidance of that food item would be recommended. The student consuming a vegetarian diet while dining in the cafeteria should be well educated in meal planning and consume a variety of plant based foods in order to meet all of their nutritional needs. Services are available at the UNT Wellness Center where a registered dietitian can provide help with planning a vegetarian diet.

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