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

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# What is a Vegan

A vegan is a type of vegetarian who does not eat meat (including fowl), seafood, products containing these foods, nor any foods that come from animals (i.e.: eggs and dairy). In other words, their diet consists only of foods of plant origin (1, 2). It has been suggested that vegans comprise nearly 40% of the actual vegetarian population (3). The American Dietetic Association maintains that vegetarian diets are healthful and nutritionally adequate when appropriately planned, and provide health benefits for the prevention and treatment of some diseases (1).

# Reasons to be Vegan

Many people choose a vegan diet for health, environmental reasons, and/or ethical reasons. Other reasons for adopting a vegan diet could be religious or cultural influences, political reasons, or taste preferences and variety. Studies show that vegetarian and vegan diets may lower rates of heart disease, lower blood pressure (4), and lower risk of developing type 2 diabetes (5). Some vegans believe the food industry, particularly the meat industry, increases pollution and carbon emissions which is deemed harmful to the planet. Certain religions have beliefs requiring specific dietary restrictions which could eliminate animal products. Others choose a vegan lifestyle because of their views on animal rights and concerns for the treatment of animals.

# A Vegan 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 vegan food guide pyramid:



#### Source: http://en.wikipedia.org/wiki/Veganism

A vegan only eats plant-based foods and does not eat foods from animals, including red meat, poultry, fish, pork, milk, eggs, and cheese. Alternatives for eggs and dairy products may include soy milk, rice milk, almond milk, olive oil, canola oil, soy cheese, and egg replacers. Tofu, wheat gluten, tempeh, and miso are good examples of meat substitutions for a vegan diet.

#### Meal Planning

A vegan diet should consist of a variety of foods in order to meet nutritional needs. A vegan diet takes more commitment than a vegetarian diet in order to account for the removal of animal by-products which are commonly used in food production as food additives, binders, or preservatives. These ingredients may be hidden in the food label, therefore, a vegan should check in advance to make sure these ingredients are not used. Some examples of animal by-products hidden in food products include gelatin, pepsin, rennet, and whey. These are just a few examples as the amount of animal by-products is extensive.

# Health Benefits of a Vegan Diet

As previously stated, a vegan and vegetarian diet can be nutritionally adequate if properly planned. Vegan and vegetarian diets have been shown to be beneficial in heart disease, certain cancers, and obesity. Vegans also consume higher amounts of fiber and vegetables compared to non-vegetarians which can contribute to positive health effects. 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.

# Nutritional Concerns for Vegans

The following are some potential nutritional concerns for vegans that may aid in achieving a balanced diet.

# Calcium

Vegans should consume foods high in calcium in order to obtain their daily calcium needs (1000-1500 mg/day for adults). Since dairy products, which are good sources of calcium, are excluded in a vegan diet, 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 vegan diet. Vitamin D deficiency can contribute to diminished bone health. Emerging research is showing a potential link to vitamin D and chronic disease. Vegans 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. Fortified soy milk, breakfast cereals, and fortified orange juice are all good sources of vitamin D.

#### Iron

Iron exists in either a heme or non-heme form. Non-heme iron is found in plant sources such as enriched bread, leafy green vegetables, legumes, nuts and may not be as usable as their meat

counterparts. Inhibitors of iron absorption include phytates (found in plants), calcium, tea, and coffee (1). Vitamin C found in fruits and vegetables may enhance the absorption of iron from plants. Good sources of iron are enriched breads, leafy green vegetables, beans, and nuts.

#### 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 vegan diet.

#### **Omega-3** Fatty Acids

Vegans may not get the required amount of the omega-3 fatty acids, EPA and DHA, given their lack of fish consumption. Vegans 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.

#### 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 vegan diet consisting of a mixture of proteins from unrefined grains, legumes, seeds, and vegetables should provide all of the essential amino acids needed.

# 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.

#### A Vegan Diet 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 that contain soy, wheat, eggs, meat, dairy, and nuts. Salad bars are located in each of the five cafeterias and a variety of vegetables are offered daily. Legumes, nuts, seeds, and beans are often available in each cafeteria. Planning a vegan diet in the cafeterias at UNT should be possible. Preparation on the students' part is needed. We suggest looking at the menu online at <u>http://dining.unt.edu/residents/menus.html</u> prior to going to the cafeteria to help assure a vegan 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 to assist the student with his or her questions. 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-vegan 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 vegan 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 vegan diet.

# Implementing a Vegan Diet in the Cafeterias

The managers and staff should be careful when preparing vegan entrees. Managers should monitor the preparation and cooking of the items to make sure the foods are cooked properly. The staff should be well educated in proper cooking procedures of vegan and vegetarian entrees to ensure that the products do not get contaminated with animal products. It requires a great deal of care that only vegetarian or vegan ingredients are used. Reading labels is very important. Equipment shared with cooks preparing meats should be thoroughly cleaned before cooking for vegetarians and vegans. Nutrition cards should always be placed with the correct foods labeled on the cards. If a card is not available for a food item, a request should be made for new nutrition cards. Managers should be prepared to answer questions from the students about vegan entrees and be well educated on the different food ingredients which contain animal products and by products. Finally, managers should maintain a vegetarian option daily and stay consistent with what the menu online states. If the menus change, a vegetarian option should still be available for the students for that day.

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