

Food and nutrition notes essay sample

[Nutrition](#)



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Though scurvy is a very rare disease, it still occurs in some patients – usually elderly people, alcoholics, or those that live on a diet devoid of fresh fruits and vegetables. Similarly, infants or children who are on special or poor diets for any number of economic or social reasons may be prone to scurvy. 16)

[http://www. articlesbase. com/anti-aging-articles/americans-unhealthy-lifestyle-is-the-leading-cause-of-death-407805. html](http://www.articlesbase.com/anti-aging-articles/americans-unhealthy-lifestyle-is-the-leading-cause-of-death-407805.html) A study by Mathew Reeves, a Michigan State University epidemiologist finds that only

3% of Americans maintain a healthy lifestyle.

14) [http://www. wrongdiagnosis. com/v/vitamin_a_overdose/causes. htm](http://www.wrongdiagnosis.com/v/vitamin_a_overdose/causes.htm)

- Hypervitaminosis
- Skin peeling
- Nausea
- Headache
- Hair loss
- Orange skin

Organic vs modified food

[http://www. trustyguides. com/healthy-eating8. html](http://www.trustyguides.com/healthy-eating8.html)

Healthy Eating

by Andrew Alexander

Alexander, A. (n. d.). Healthy Eating. Curiosity Media Inc. Retrieved April 10, 2010, from [http://www. trustyguides. com/healthy-eating8. html](http://www.trustyguides.com/healthy-eating8.html) •Organic food are grown 100 percent naturally, without any synthetic chemical pesticides or fertilizers •People buy organic food so they can avoid eating chemicals •Although people eating organic food do ingest less chemicals, but according to a 202 study by Consumer Union, the Yonkers, NY-based <https://assignbuster.com/food-and-nutrition-notes-essay-sample/>

publisher of Consumer Reports magazine states that “ customers who buy organic are exposed to about a third as many residues as those who buy conventionally grown foods.” •So far there has been a full on conclusive evidence that pesticides levels on the food are at a high enough level to be harmful to humans •Most experts say there is a very small amount of pesticides on our fruits and vegetables and if washed most of it will be cleaned off. [http://www. differencebetween. net/object/difference-between-organic-and-inorganic-food/](http://www.differencebetween.net/object/difference-between-organic-and-inorganic-food/) Difference Between Organic and Inorganic Food (2009). Difference Between Organic and Inorganic Food. Difference Between. Retrieved April 10, 2010, from [http://www. differencebetween. net/object/difference-between-organic-and-inorganic-food/](http://www.differencebetween.net/object/difference-between-organic-and-inorganic-food/) Organic

- Organic food cannot be genetically altered in any way.
- Manure and compost are majority of natural fertilizers
- Farms can also put insecticidal soap or neem oil
- Less chemicals few the carcinogens
- Also taste better

GM or Genetically modified food

- Food has been changed at a genetic level.
- Such as cross breeding to create hardier or tastier strains •SM seeds can also be drought resistant or higher yield

[http://www. agronomy-journal. org/index. php? option= article&access=doi&doi= 10. 1051/agro/2009019](http://www.agronomy-journal.org/index.php?option=article&access=doi&doi=10.1051/agro/2009019) Lairon, D. (2009). Nutritional quality and safety of organic food. A review (Vols. 30 – 1, Agron. Sustain. Dev. ed. , pp. 33 -41). EDP Sciences. Retrieved April 10, 2010, from [http://www. agronomy-https://assignbuster.com/food-and-nutrition-notes-essay-sample/](http://www.agronomy-https://assignbuster.com/food-and-nutrition-notes-essay-sample/)

journal.org/index.php?option=article&access=doi&doi=10.1051/agro/2009019

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Nutritional quality and safety of organic food. A review

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- This review is based on the AFSSA report issued and recently published studies
- 1 organic plant has more dry matter and minerals such as iron and magnesium, has more anti oxidants, contains more polyunsaturated fatty acids
- 94-100% organic foods have no pesticides residue
- Organic vegetables have 50% less nitrate
- Organic cereals however have basically the same levels of mycotoxins, as normal cereals
- Vegetarian vs. non vegetarian pros vs. cons

Vegi Diet

- Myth that 100 percent vegi dieters are healthier than most of us
- On average they suffer just as many if not more medical problems
- Kidney and liver are the main two organics to indicate if a person would benefit from a vegi or a no vegi diet
- People who have lower levels of iron, protein, phosphorus, sodium, and manganese, and have higher levels of potassium and zinc are better suited for a higher meat consumption type of diet
- Where as people will higher levels of iron, protein, sodium, phosphorus, and manganese and lower levels of zinc and potassium are better suited for a vegi diet

Non Veg

- No vegi substitute for vitamin B12
- Herbivores ex rabbits eat plants with insects in them to get the required amount of vitamin B12
- The liver is where vitamin B12 is stored and last a few year before the B12 runs out, if a person switches into a straight Vegi diet
- Grown Childern that are vegetarian have a much higher percent of B12 defiency

Vegetarianism; the pros and cons of a meatless diet

Kristin Higgins

Vegi (pros)

- Research shows that vegetarians are less likely to become obese
- Also less likely to develop atonic(reduced muscle tone) constipation, lung cancer, and alcoholism.
- Vegi diets also lowers the risk of hypertension, coronary artery disease(due to less saturated fats, cholesterol, and animal protein), type 2 diabetes, and gallstones
- Lower risk for breast cancer, diverticular disease of

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the colon, colonic cancer, calcium kidney stones, osteoporosis, dental erosion •Life span from a vegetarian to a non vegetiarain is around the same or a bit higher •BMI for non meats are lower

•For meat eaters males the BMI was 23. 18 Kg/m² and for non meat eater males it was 22. 05 Kg/m² •For meat eaters females the BMI was 22. 32Kg/m² and for non femeat eater males it was 21. 32 Kg/m² •Studies show that survival rate increases with a diet of certain plant protein and decreases proteinuria, glomerular filtration rate, renal blood flow, and histologic renal damage

COns

Vegan(who eat eggs no meat or milk)

- Have lower levels of Vit D and Calium intake
- Lack of Vit D can produce rickets in children
- Lack of Calcium can produce osteoporosis later in life
- Vegan are risk for iron deficiency because of the lack of animal protein and because high fiber diet(soy, bran) enables iron to be absorbed •Can get protein deficiency which can have effects such as loss of hair, muscle mass and abnormal accumulation of fluid •Vegi have level bone mineral density 1. 148 vs. 1. 216(meat eaters) •Ph. D associate professor of food science and human nutrition at University of Missouri, Columbia, Gretchen Hill, believes Children have the greatest risk of health problems when they reach 40-60 because of the imbalances with micronutrients ex iron, zinc, and copper
- Copper is crutial for a child as it strengthens their immune system and builds red blood cells. •Children not meet their zinc needs with out meet

- Protein deficiency can lead to stunted growth
- Pregnant vegetarians must make sure they have a high enough calorie intake or the child may have a low birth weight
- Low levels of Vit B12 can be dangerous to mother and baby during pregnancy
- Eating meat that is undercooked or drinking unpasteurized milk can get a person sick by the spread of bacteria
- E. coli is a bacteria that lives in the intestine of animals and people, if the bacteria get into your food or water you can develop many problems
- In 1999 around 73 000 people in US got sick each year from E. coli
- Raw vegetables, sprouts, and fruits grown or washed in dirty water can also carry E. coli
- The symptoms are Bloody diarrhea and stomach pain
- Children under 5 and the elderly can become extremely sick by the bacteria and sometime produce fatal

Malnutrition

<http://www.labtestsonline.org/understanding/conditions/malnutrition.html> (2009). Malnutrition. American Association for Clinical Chemistry. Retrieved April 10, 2010, from <http://www.labtestsonline.org/understanding/conditions/malnutrition.html>

• Malnutrition is when a person is not receive enough nutrients for the body to function efficiently

- Malnutrition is usually caused by under nutrition but can also be caused by over nutrition as well.
- Constantly eating can lead to obesity and metabolic syndrome a decreased ability to process glucose (increased blood glucose and/or insulin resistance), they are at a great risk of developing type 2 diabetes and cardiovascular disease.
- Also overnutrition can be from

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vitamins or mineral toxicity, produced by over supplementation of fat soluble vitamins like Vit A •Under Nutrition is when vital nutrients are not taken at a high enough quantity for your body to function correctly •This can be from lack of food, or “ disease that decrease the body’s ability to digest and absorb nutrients”

- Most crucial time a persons life for nutrients are During infancy, adolescence, and pregnancy, lack of nutrients at this time can produce a condition called marasmus which is a thin body and stunted growth. •If the child has enough calories but not enough protein the child will develop a condition called kwashiorkor which enlarges the liver, apathy, and delays development •Lack of vitamins can affect the bone and tissue development, such as lower levels of folic acid during pregnancy can cause birth defects
- Malnourished people have a weaker immune system and take longer time to heal after surgery •Chronic disease can also contribute to nutrient loss, greater nutrient demand, and or mal absorption (doesn’t absorbed nutrients)
- Malabsorption can be caused by diseases like celiac disease, cystic fibrosis, pancreatic insufficiency, and pernicious anemia •Patients with HIV suffer from Malabsorption as appetite decreases less nutrients absorbed •People who abuse drugs or alcohol also may develop Malabsorption Obesity

Obesity vs over weight

<http://www.naturesintentionsnaturopathy.com/weight-loss/facts.htm> (n. d.). FACTS – OBESITY VERSUS OVERWEIGHT. Nature’s Intentions Naturopathic Clinic. Retrieved April 10, 2010, from <http://www.naturesintentionsnaturopathy.com/weight-loss/facts.htm>

•According to the National Health and Nutrition Examination survey 111, one and every three <https://assignbuster.com/food-and-nutrition-notes-essay-sample/>

Americans are obsessed • Obesity is someone who is 20 percent over their ideal weight for their height • The number of obese children have doubled since 1961 because of high sugar and fat diet, and also due to physical inactivity • BMI of an overweight person is 24 to 27 kg/m² and a BMI of over 27 kg/m² as obese. • Overweight and obesity leads to adverse metabolic effects on blood pressure, cholesterol, triglycerides and insulin resistance

• The non-fatal effects of obesity are respiratory difficulties, chronic musculoskeletal problems, skin problems and infertility. • Life-threatening problems are CVD problems; conditions associated with insulin resistance such as type 2 diabetes; certain types of cancers, especially the hormonally related and large-bowel cancers; and gallbladder disease. • Higher body fat percentage more likely a person is going to develop Type 2 diabetes and hypertension rises • Approx 85% of people with diabetes are type 2, and of these, 90% are obese or overweight • Higher BMI increases the risk of cancer of the breast, colon, prostate, endometrium, kidney and gallbladder. • Overweight and obesity contribute significantly to osteoarthritis, a major cause of disability in adults •

TYPES OF OBESITY

1. Hyperplastic – increased number of fat cells throughout the body

Hypertrophic – increase in the size of each individual fat cell. Linked to diabetes, heart disease, high blood pressure and other serious disturbances of metabolism. Usually around the waist (typically seen in males) Causes of obesity

1. Psychological –decreased sensitivity to internal cues of hunger 2.

Watching television! – reduces physical activity and lowers basal/resting

metabolic rate 3. Physiological – brain serotonin levels, diet induced thermo

genesis, metabolism of the fat cells, and sensitivity to insulin 4. Studies have

shown that with eating diets deficient in tryptophan cause an increase in

appetite, resulting in binge eating of carbohydrates [http://www.](http://www.obesitycanada.com/)

[obesitycanada.com/](http://www.obesitycanada.com/)

- Experts estimate that 10 to 25% of all teenagers and 20 to 50% of all adults

- have a weight problem •There are many contributing factors to obesity:

- activity levels, diet, genetic, metabolic, environmental, social, economic,

- psychologic, behavioral and biological. Activity levels have significant impact

- on the body systems that control food storage and utilization of energy. Low

- activity levels (typified by the “ couch potato”) cause an increase in the

- storage of excess food energy as fat. •There is also growing evidence that

- genetic factors influence the body’s tendency to store energy either as fat or

- as lean body tissue (muscle). Metabolic processes also influence obesity.

- (The word metabolism describes the sum total of all of the chemical

- reactions that occur in the body). •Other contributing factors include

- endocrine dysfunction, such as adrenal disease or diabetes. However,

- endocrine causes of obesity are relatively uncommon. •However, inactivity

- and poor diet are the two most important contributing factors to excessive

- weight gain.

- Obesity in Canada – Snapshot

- Date Modified: 2009-06-17

- In the 2007 Canadian Community Health Survey, the self-reported rate of

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adult obesity (age 18+) was 17%. •The actual rate of obesity is likely much higher, closer to 25%. •Across Canada, self-reported rates of obesity have increased from 2003 to 2005 and again in 2007. •Obesity rates for both men and women increase with age, starting at age 20 and continuing until age 65. •After age 65, obesity rates decline.

•In 2005, the measured rate of obesity for youth 12 to 17 was 9.4%, almost two times higher than the self-reported rate (4.9%). •Self-reported data from 2002/03 suggest that obesity rates are high among First Nations adults (36.0%), youth (14.0%) and children (36.2%). •In 2007, the self-reported obesity rate among off-reserve Aboriginal adults was 24.8%, compared to 16.6% for non-Aboriginal adults. •Unlike other health issues such as mortality or life expectancy, for which there is a clear disadvantage for those with lower income, the relationship between income and obesity is not clear.

•In 2005, obesity-related chronic conditions accounted for \$4.3 billion in direct (\$1.8 billion) and indirect (\$2.5 billion) costs – a figure that may be an underestimation of the total costs of excess weight in Canada. *Source: Chronic Disease Surveillance Division, Centre for Chronic Disease Prevention and Control, Public Health Agency of Canada, using the following data sources: Measured – 1978/79 Canada Health Survey; 1989 Canadian Heart Health Surveys (ages 18-74); 2004 Canadian Community Health Survey; Nutrition; 2005 Canadian Community Health Survey. Self-reported – 1985 and 1990 Health Promotion Survey; 1994/95, 1996/97, 1998/99 National Population Health Survey; 2000/01, 2003, 2005, 2007 Canadian Community Health Survey. Note: This analysis excludes the territories. The percentages exclude non-response.

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Vitamin A

(found in two forms:

retinol and beta carotene) Necessary for vision in dim light, for healthy skin and surface tissues, especially those which excrete mucus (for example the intestines, lungs and vagina). In addition, it prevents infections and is necessary for the immune system Fish liver oils (for example cod or halibut liver oil), liver, carrots, fortified margarine, cheese and dark green leafy vegetables

Vitamin D

(found in two main forms: cholecalciferol and ergocalciferol) For the growth and maintenance of bones and teeth through regulation of absorption and metabolism of calcium Oily fish, eggs, milk, fortified breakfast cereals and fortified margarine. Also created in the body by action of sunlight on the skin

Vitamin E

(found as a group of compounds called tocopherols) Protection of cell membranes and fats from oxidative damage; protection of vitamin A, immune system and nervous system Vegetable oils, eggs, whole grains, green vegetables and nuts

Vitamin K

(covers a number of compounds, including phyloquinone) Is necessary for normal blood clotting and energy metabolism Dark green leafy vegetables, liver, meat, potatoes and cereals

Vitamin B1

(thiamin) For energy metabolism, especially from carbohydrates Bread, potatoes, milk, meat (especially pork), offal, whole grain cereals and fortified breakfast cereals

Vitamin B2

(riboflavin) Essential for the utilization of energy from foods, especially fats

and proteins Milk, meat (particularly liver) and eggs Niacin (also known as vitamin PP)

(nicotinic acid) Necessary for energy metabolism Meat, potatoes, bread and fortified breakfast cereals Pantothenic Acid (also known as vitamin B5) Energy metabolism and production of neurotransmitters for the nervous system Yeast, liver, whole grains, greens and nuts. In fact it is found in virtually all foods Vitamin B6

(found as a group of compounds, including pyridoxine) Necessary for protein metabolism, particularly of hemoglobin Potatoes, vegetables, meat, milk and fish Vitamin B12

(found as a group of compounds, including cyanocobalamin and hydroxocobalamin) For the production of blood (red cells), nervous system, synthesis of DNA Liver, milk, fish and eggs Folic Acid (also known as vitamin Bc or M) Necessary for the production of blood (red cells), nervous system, synthesis of DNA Offal and raw green vegetables Biotin (also known as vitamin H) For protein and fat metabolism Liver and kidneys, whole grains and nuts Vitamin C

(found as a group of compounds, including ascorbic acid) Necessary for the maintenance of connective tissues (including tendons, ligaments and cartilage). In addition, it helps wound healing, production of hormones, the immune system and protects vitamins A and E Fresh fruit, especially citrus fruits and vegetables (particularly potatoes)

MineralsFunctionFood sources

SodiumHelps regulate body fluids and is involved in energy release, functioning of nerves and muscle contraction. Increases blood pressure
Salt, bread and cereal products, bacon, ham, shellfish, smoked fish, soy sauce and foods that have been preserved by using salt
PotassiumIs used in the body's fluid balance and is involved in membrane functions, muscle function and reduces blood pressure
Potatoes, vegetables, greens, pork, dairy products, fruit (especially bananas) and juices
CalciumFor bones and teeth, blood clotting, hormone secretion, muscle and nerve function
Milk, cheese, bread and flour, green leafy vegetables and small oily fish with bones
MagnesiumInvolved in muscle tone and activates enzymes
Milk, bread, potatoes and vegetables
IronNecessary for the manufacture of hemoglobin in blood (red cells) oxygen transport and transfer to tissues, activates enzymes
Red meats, liver, flour and cereal products, potatoes and vegetables
ZincFor growth, bone metabolism, activation of enzymes, release of vitamin A from liver, immune system, taste and insulin storage
Meat, liver, seafood (especially oysters) milk, bread and cereals
CopperEssential for enzyme function, especially blood formation, bone metabolism, immune system, nerve function and energy metabolism

Oysters, mussels, whelks, liver, brewer's yeast, whole grains, nuts and cocoa

ManganeseNecessary for enzyme activation and cell structure (works with calcium and iron)
Whole wheat bread, wheat germ, nuts, avocados, peas and tea
MolybdenumInvolved in enzyme functions
Liver, kidney, wheat germ, lentils, sunflower seeds, eggs and beans
SeleniumHas an enzyme function protecting cell membranes and fats from oxidative damage (works with

vitamin E) Nuts (especially brazil), seeds, bread, fish and meat (especially pork) Chromium Enhances the action of insulin on glucose uptake by cells Egg yolk, liver, cheese, whole wheat products, molasses and brewer's yeast Iodine A necessary component of thyroid hormones Oily fish, seaweed, meat, milk and iodized table salt Phosphorus Accommodates energy stores, bones, membrane function and growth Dairy products, eggs, meat, fish, soya beans, soya products, pulses and wheat bran