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**Nutrition and Healthy Eating Assignment: (45 marks)**

Read the following article, and then answer the questions that follow.

From Open School BC website: http://www.openschool.bc.ca/k12/pdfs/fn12\_intro\_assn.pdf

**Healthy Eating**

Did you know that, in the last 20 years, the diameter of the average dinner plate increased by three inches? In this same time period, obesity has reached epidemic proportions! Sadly, at the same time, many youth have starved themselves. More than 17 percent of high-school girls in BC suffer from some form of eating disorder such as anorexia or bulimia. About 8 percent of males are also affected (Dr. Laird Birmingham, Provincial Director, St. Paul's Eating Disorder Program as quoted in *The Vancouver Sun,* February 5, 2004).

Eating disorders occur due to a number of psychological and sociological reasons. But what constitutes healthy eating? Why is a good diet important?

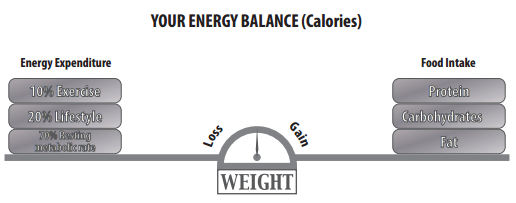
A good diet and a healthy body weight both enhance general well being and reduce the risk of diseases including heart disease, stroke, cancer, diabetes, and osteoporosis. What's needed to maintain a healthy body weight?

**Energy Balance**

The key to a healthy body weight is energy balance: simply put, "energy in" must equal "energy out."

"Energy in" is the calories you consume each day from foods and drinks. "Energy out" is the calories you burn to carry out basic bodily functions that keep you alive such as breathing and digestion as well as physical activity. The more physical activity you do, the more fuel you need. Energy that is not used is stored as fat and will cause weight gain. If the body has less energy than it needs, it will burn fat stores to keep up with the body's functions and activity. This results in weight loss.

**How do you ensure energy balance? By being active and eating a nutritious diet.**

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**The following are a few tips to follow for healthy eating:**

* **Eat only the amount of calories you need**. Balance your calorie intake and your calorie expenditure; don't eat more than your body uses. The average daily allowance is 2000 calories, but this amount depends on your age, sex, height, weight, and physical activity. Teenage males 15-18 need approximately 2800 calories per day, while females of the same age require 2100. If you are a competitive athlete you will need more calories. For example, Olympic rowers need to eat between 5000 and 5500 calories just to maintain their bodyweight.
* **Make sure your diet consists of** the essential building blocks of healthy eating. Eat a diet that includes **protein, carbohydrates, and mono- and/or polyunsaturated fats**.
* **Eat a minimum of five portions of fruit, vegetables, grains, and legumes daily**. These types of foods provide needed complex carbohydrates, fiber, vitamins, and minerals and are low in fat and free of cholesterol. Brighter, deeper coloured fruits and vegetables contain higher concentrations of essential nutrients.
* **Drink more water.** Since our bodies make up 75% water, it's a vital part of our diet. Water flushes out toxins and waste from our kidneys and bladder.
* **Limit refined sugar and processed foods.** Sugar is added to many foods. In one year, a daily 12-ounce can of pop (160 calories) could increase your weight by 16 pounds. Many processed foods such as packaged, canned, boxed, or frozen meals contain high amounts of salt and food additives that may not be good for your health. When you can, make meals using fresh food.
* **Beware of fad diets and food supplements.** Many fad diets or diet products promise to be the magic bullet for weight loss, or the key ingredient for bulging muscles and a buff physique. However, any fad diets such as high protein diets, protein powders, meal replacements, or mega vitamins could be harmful to your body.
* **Get moving**. A healthy diet improves your energy, maintains physical wellness, and reduces the risk of many diseases. If you add regular physical activity to your day, your healthy eating plan will work even better!

Healthy eating and the right amount of physical activity ensure energy balance and support general physical wellbeing. Energy balance is important for maintaining a healthy body weight that, in turn, helps prevent diseases such as stroke, cancer, and diabetes.

Based on the reading above, choose the correct answers for the following questions:

1. Fad diets and food supplements are always healthy and safe. False
2. The more water you drink, the better for your health. True
3. Females are more susceptible to eating disorders than males. True
4. Even a little added sugar in daily diets can cause weight gain over time. True
5. Brighter, deeper coloured fruits and vegetables contain:
6. Higher concentrations of essential nutrients.
7. The building blocks of a healthy diet are:
8. Carbohydrates, protein, and mono- or polyunsaturated fats.
9. Why is energy balance important? Because if you eat too much you will gain weight and if you do not eat enough you will lose too much weight. As well, you will need to eat more if you exercise a lot…it also guards against diseases.
10. On the website link below, sign up and find your daily caloric requirements. Do you wish to maintain, lose, or increase your current weight: \_\_\_\_\_lose\_\_\_\_\_\_\_\_\_\_ (1 mark)

[*http://www.sparkpeople.com/myspark/register.asp*](http://www.sparkpeople.com/myspark/register.asp)

What is your recommended daily calorie range? \_\_\_\_\_\_\_\_\_\_2800\_\_\_\_\_\_\_\_\_\_\_(1 mark)

1. Using the same website, record everything you eat for **three** (24 hour) days. Calculate the AVERAGE consumed by adding each day and dividing by 3. Then compare that amount to the recommended amount. Record how much your consumed amount is: a) Over, b) Under or c) In correct range for each listed nutrient: (5 marks)

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Daily Recommended: | Average Daily Consumed: | Are you: Over, Under, or In range? | How much: Over, or Under? | | Calories |  |  |  |  | | Carbohydrates |  |  |  |  | | Fat |  |  |  |  | | Protein |  |  |  |  | | Fiber |  |  |  |  | |

1. From the Weekly Progress chart and Water tracker, Calculate the AVERAGE consumed by adding each day and dividing by 3. Then compare that amount to the recommended amount. Record how much your consumed amount is: a) Over, b) Under or c) In the correct range for each listed nutrient: (5 marks)

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Goal: | Average Daily Consumed: | Are you Over, Under or In correct range: | How much: Over, or Under? | | Sodium |  |  |  |  | | Vitamin C |  |  |  |  | | Calcium, Ca |  |  |  |  | | Iron, Fe |  |  |  |  | | Water |  |  |  |  | |

1. Attach a screen shot/print screen of each day’s consumption of food and the weekly progress chart with calorie breakdown and water consumption (2 marks)
2. Based on your results-do you have a healthy diet? Why or why not? Specify which food and or nutrients you would change. Discuss your calorie breakdown and water chart. (6 marks)

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**Using the website links provided, answer the questions below:**

1. According to the **Canada Food Guide:** [**http://www.hc-sc.gc.ca/fn-an/alt\_formats/hpfb-dgpsa/pdf/food-guide-aliment/view\_eatwell\_vue\_bienmang-eng.pdf**](http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/view_eatwell_vue_bienmang-eng.pdf)
2. What is an average serving size of fresh, frozen or canned vegetables?
3. What is the serving size of milk?
4. What is the serving size of cooked rice?
5. Is ½ cup of yogurt a serving size of milk and alternatives?
6. Is 1 egg a serving size of protein?
7. What is a serving size of cooked fish, poultry, or lean meat?
8. Choose a column. How many servings of each food group should YOU eat daily?(4 marks)

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| |  |  |  | | --- | --- | --- | | If I am: | Female | Male | | Vegetables/Fruits |  |  | | Grain Products |  |  | | Milk/Alternatives |  |  | | Meat/Alternatives |  |  | |

15. What are all the side effects of too much sodium? (2 marks)

[**https://www.nlm.nih.gov/medlineplus/ency/article/002415.htm**](https://www.nlm.nih.gov/medlineplus/ency/article/002415.htm)

16. Explain in your own words (no cut and paste) why **calcium** is important in our body. (2 marks)  
[**http://www.medicine.wisc.edu/rheumatology/hansenresearchcalcium**](http://www.medicine.wisc.edu/rheumatology/hansenresearchcalcium)

17. Explain in your own words (no cut/paste) why **vitamin C** is important in our body. (2 marks)  
[**https://ods.od.nih.gov/factsheets/VitaminC-Consumer/**](https://ods.od.nih.gov/factsheets/VitaminC-Consumer/)

18. Explain (no cut/paste) why **iron** is important to our bodies. (2 marks)  
[**http://www.ucsfhealth.org/education/hemoglobin\_and\_functions\_of\_iron/**](http://www.ucsfhealth.org/education/hemoglobin_and_functions_of_iron/)