Step 3

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SC115: Principles of Nutrition

Unit 8

### Step 3:

Answer the questions below utilizing the reports generated from the My Diet Analysis software.

#### 1-What did your nutrition analysis teach you about your diet, in general?

I learned that altering your diet even the slightest can make significant changes in the nutrients that you may gain or lose.

# 2-Based on your ORIGINAL 5 DAY food log actual vs. recommended report, which nutrients did you consume less than or equal to 75% of the RDI?

The nutrients I consumed less than or equal to 75% are calories, carbohydrates, dietary fiber, Vitamin A, Vitamin B1, Vitamin C, Vitamin D, Vitamin E and Folate.

### 3-Which nutrients did you consume greater than or equal to 125% of the RDI?

The nutrients I consumed greater than or equal to 125% are Vitamin B12, iron, phosphorus, and sodium.

## 4-Explain how ALL of these nutrients you identified would affect your health and risk factors for diseases. Be sure to utilize information from your textbook.

Nutrients are definitely important, and deficiencies could potentially cause an entire array of problems.

**B12-**a B12 deficiency can cause pernicious anemia (pg.415).

**Iron**-Iron deficiencies are serious and range from a decrease in iron stores (leading to reduced levels of ferritin), secondly a reduced transport of iron (referred to as transferrin), and lastly iron deficiency anemia (pg. 428). This could lead to premature birth, low birth weight, increased risk of infections, risk of premature death and impaired cognitive behavior (pg. 429).

**Phosphorus**-phosphorus assists in maintaining fluid balance (pg. 295). A deficiency can cause dizziness, bone pain, and muscle pain (pg 378).

**Sodium**-High amounts of sodium can cause hypertension which can lead to heart disease. Sodium assists with maintaining the balance of fluid, the blood pressure, the nervous system, and muscle contraction (pg. 295).

**Dietary Fiber**-Healthy amounts of fiber may reduce the risk for colon cancer, reduce the risk of hearth disease, and lower the risk of type 2 diabetes (pg. 127).

**Vitamin A**-healthy amounts of vitamin A can reduce birth defects, bone abnormalities, and sever liver disease (pg. 349), and supports healthy vision (pg. 339).

**Vitamin B1**-deficiencies in Vitamin B1 can cause beriberi, apathy, confusion and irritability as well as muscle weakness (pg. 405).

**Vitamin** C-Vitamin C can prevent the damage of cells and tissues, best known for boosting the immune system (pg. 339).

**Vitamin D**-Vitamin D deficiencies can cause rickets, osteomalacia, osteoporosis (pg 378).

**Vitamin** E-Vitamin E protects LDLs, along with the enhancement of the immune system, and the development of nerves and muscles (pg. 339).

**Folate**-proper amounts of folate may reduce a woman's risk of having children with brain or spinal cord defects (pg. 46).

#### Reference:

Thompson, J., Manore, M. (2009). Nutrition an Applied Approach. Boston, MA: Pearson Leaning Solutions.

## 5-Name three (3) foods that you enjoy that would help you consume more of the nutrients you were low in.

list 3 healthy foods in your diet plan - citation from book

Vitamin A - For Vitamin A I would choose carrots (Appendix A-34).

Dietary fiber - For dietary fiber I would choose oatmeal.

Vitamin E - For Vitamin E I would choose honeydew melon (Appendix A-14).

## 6-Name three (3) foods that you could easily give up to reduce those nutrients you were too high in. Use citations to back up this information.

list 3 unhealthy foods in your diet plan-citation from book

Sodium - I could give up potato chips which are high in sodium.

Iron - To reduce my high iron, I could eat less red meat (Appendix A-22).

Vitamin B12 - I don't believe I should take away any B12 as Vitamin B12 is really good for you.

### 7-Compare your reports from your original food log and your made up menus.

do comparison-done

#### 8-What differences do you notice?

I noticed MANY differences between the two. Most notable are my calories I went from 59% to 90%, calories from fat went from 55% to a whopping 107%. My dietary fiber went from 19% to 44%, which is a little better. My cholesterol went from 53% to 164%, which is really bad.

#### 9-What specific improvements do you think made the most difference?

The improvements I made were my dietary fiber, Vitamin B1, B2, B3, my folate and Vitamin D and E went up.

# 10-If you actually ate the foods in your menus, how would these changes influence your health and risk factors for disease?

If I ate the menus just as they are, I would be at risk for hypertension, heart disease as my sodium

and cholesterol are way too high. I think I am going to cut back salting my food, Pringles chips, and watch my general sodium intake.

11-In a paragraph or two, explain how your diet has or has not changed over the course of this term. What topics in particular have been the most helpful to you in guiding your food choices?

Nutrition and the pursuit of a healthy body are very important. Over the course of this class, I have learned just how important maintaining good health can be. I have also learned my dietary choices, up to now, have not been all that great. I've learned from the mydietanalysis web site that I need to drink more water, eat less sodium, watch my cholesterol, as well as eat more whole grains and vegetables. I'm in IT, and it seems like most IT people have bad diets. I am definitely going to make a lifestyle change, by eating chips every other day, rather than every day (and substitute whole grain cereals for my off days). I cannot quit drinking soda (I'm addicted) however, I will drink 12 ounces of water for every 12 ounces of soda I drink. I will also pay a lot more attention to trans fat, sodium, and carbohydrates in foods. I can honestly say this class has been an eye-opener; I have learned a lot about what it means to be healthy.

#### Reference:

Thompson, J., Manore, M. (2009). Nutrition an Applied Approach. Boston, MA: Pearson Leaning Solutions.