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NFSC 340  
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### Case Study-Diet Project

My client is a 20-year-old male student named Jake who currently attends college full time, and who is unemployed, and lives a moderately active lifestyle. My client's height is 5 feet 3 inches, and weight is 120 pounds, after a few calculations I found that his ideal body weight is actually 124 pounds. Even though his ideal body weight is greater than his actual weight, 120 pounds still falls within the normal 10% range of 124 pounds. Jake is considered to be of a normal body weight, even though he is constantly eating in order to maintain this weight. However, if he is not constantly eating he begins to loose weight, up to 1 pound per week.

After a recent blood panel, I learned that his blood glucose of 87 falls within a normal range. However, my client's cholesterol is slightly high, 155, for an active, 20-year-old male. Ideally we would want to see his cholesterol levels between 100-129, and an acceptable range is 130-159. Jake's blood pressure is 120/70, which is also slightly elevated. An acceptable systolic number would be under 120 and diastolic would be less than 80. However, because my client has no known family medical history and isn't taking medications, this isn't a big cause for concern, rather something to monitor as time goes on.

Jake currently has a Body Mass Index or BMI of 21.3, which falls within the normal range. He is moderately active as he jogs twice a week for one hour each time; he also plays tackle tag for 20-30 minutes once a week, and he plays flag football once a week for 30 minutes. All together his physical activity time is 3 hours per week averaging

25 minutes per day. Jake's estimated Energy Expenditure, EER, per day is about 2,627kcal. However, on average he is consuming upwards of 4,741kcal per day and this large discrepancy is in order to maintain weight. My client is exceeding his RDA for protein, carbohydrate and fat on a daily basis as well as consuming adequate RDA for all micronutrients. However, he is not getting enough fresh fruits and vegetables in his diet.

My client is consuming more than needed according to the dietary guidelines. Jake's average consumption of percent calories from protein, and carbohydrates are within the normal recommended guidelines. On the other hand, the average percent of fat contributing to total calories per day is much higher than normal for saturated fats, monounsaturated, and polyunsaturated fats. On a whole, the fat content in Jake's diet is only slightly higher than what is suggested. Jake doesn't have to worry about the calories from alcohol affecting his diet as he only consumes alcohol three or four times per year, and has one drink. The amount of cholesterol that my client is consuming is more than double what it should be and this is an issue of concern.

According to MyPyramid.com Jake should be consuming 7oz of grains, half of them whole-grains, 3 cups of vegetables, 2 cups of fruit, 3 cups of milk, and 6oz of meat and or legumes per day. On average, my client is consuming 9.4oz of grains, none of which are whole, 1 cup of vegetables, ½ cup of fruit, over 7 cups of milk and dairy, and over 12oz of meat per day. Jake consumes a lot of starchy foods, no legumes, lots of protein in the form of meat and eggs, no dark green leafy vegetables or red/orange fruits. On average, Jake consumes twice as much milk and dairy as recommended. Most of Jake's discretionary calories come from chocolate milk, chocolate candies, and his fetish for Root Beer. As Jake is a very busy person and has an active social calendar, most of

his food choices seem to be out of convenience. He eats fast food out with friends a few times a week, and he eats while doing homework, watching TV, and listening to music. He seems like a distracted eater who needs to cue in on hunger and satiety cues and learn to be more of an intuitive eater. Also, it would be very beneficial for Jake to include whole grains, fresh fruits and vegetables, and reduce the amount of milk he is consuming as well as the Root Beer sodas.

Jake is experiencing inadequate fiber intake, related to a low intake of fruits, vegetables, and whole grains; as evidenced by an average eating of 1 cup vegetables and ½ cup of fruit per day. My client also has excessive oral food/beverage intake related to his need to maintain his weight, as evidenced by the average consumption of 4,741kcal per day. If my client were to consume more whole foods such as fresh fruits, vegetables, and whole-grains rather than processed, fast foods, and soda then he would maintain a healthy weight. Jake would also experience satiety as insoluble fibers such as those found in whole-grains, fruits and vegetables, keep you feeling full longer. Jake is experiencing hunger because he is consuming calories in liquid form. All the soda he drank over the three-day period contributed to 1,230kcal out of his total of 14,223.

As Jake continues to seek Nutrition Counseling we will teach him what “empty” calories such as those in soda and candy are, and how to better choose calorie rich foods that are healthier and more satisfying. I believe once Jake learns how easy it is to prepare these fresh foods, he will eat out less, consume more fiber in his diet, and no longer feel the need to be eating so often, and in such great amounts. By adding more fresh fruits, vegetables, and making more than half of the grains Jake consumes whole-grains, we will see a positive change in his cholesterol, fat intake, and overall caloric intake.