

McKenzie Kurgel

Activity 3.2.4: PLTW Nutrition – Client Report for Jeremy Brown

Client Name: Jeremy Brown

Health History (including any specific health goals):

Jeremy is a 24-year-old law student at the local university. A competitive swimmer throughout college, Jeremy has always been in good health. Now that his schedule has become so hectic, he has limited time for exercise other than walking to class. He eats most meals outside of the house and admits to snacking and drinking caffeinated beverages to stay up to study.

The patient describes a family history of heart disease in both his mother and his father. His father takes medication for both high blood pressure and cholesterol and his mother has had angioplasty to open a blocked artery in her heart. His uncle on his mother's side developed Type II diabetes at age 40. There is no family history of cancer.

Recent lab work revealed that Jeremy's LDL cholesterol is 130 and his HDL cholesterol is 45. His average blood pressure was 135/85.

Jeremy feels sluggish and he is looking for ways to improve his quality of life. He wants an assessment of his current health and he would like recommendations for how he can integrate exercise and healthy eating habits back into his busy schedule.

Height: _____ 6' 2" _____ **Weight:** _____ 235lbs _____

BMI:

- Calculate Jeremy's BMI based on his height and weight and describe the implications of this number. Take Jeremy's athletic history into account.

$$\frac{106.5}{(1.8796)^2} = 30.145$$

Obese - probably not in too bad of health since he has been

Activity Level: BMR and TDEE (Output): *healthy most of his life*

Jeremy reports going to the campus pool about once a week for a 30-45 minute swim. He walks to class each day, but his apartment is not far from the main law buildings or the library. Jeremy spends 4-5 hours a night at the library studying or writing. About once a month, he meets his father to play golf. They play 18 holes, but use a golf cart to maneuver around the course.

- Compute Jeremy's BMR.

$$BMR = 66.5 + (13.75 \cdot 106.5) + (5.003 \cdot 187.9) - (6.775 \cdot 24)$$

$$BMR = \del{2311.3} 2311.3$$

- Discuss the activity factor used in the Harris-Benedict Equation and calculate TDEE.

$$2311.3 \times 1.375 = 3176 \text{ calories per day to maintain}$$

Food Intake (Input):

Jeremy completed a food diary for one week. Analysis of his food choices revealed the following results:

KHD BDCM
1.879

Average calories consumed per day	3024
Average fat consumed per day	81g
Average saturated fat consumed per day	40g
Average carbohydrates consumed per day	355g
Average protein consumed per day	40g
Average sodium consumed per day	3,056mg

65g
20g
300g
50g

Jeremy reports eating 2-3 servings of fruits or vegetables per day. He reports drinking 4-5 cups of coffee per day as well as 2-3 caffeinated sodas, and 2-4 glasses of water per day.

Jeremy reports eating fast food at least once a day.

Calorie Deficit or Surplus (Compare Inputs and Outputs):

- Compare calories consumed versus calories expended.

He is eating about the right amount of calories to maintain his body weight

- Describe what will happen to Jeremy's weight over the next month if he continues the same eating patterns. Show your work.

$$3178 - 3024 = 154 \times 30 = 4620$$

he will lose 1.32 pounds

Overall Assessment:

- Discuss overall implications of BMI and any energy imbalance on overall health.

- Analyze food choices

- Is the client getting enough of each of the designated food groups?

he is getting way too much carbs, fat, & sodium and not enough protein

- How does consumption of fats, carbohydrates, proteins and sodium compare to recommended values?

he should eat less fat & carbs

- Propose ways to bring the energy input and output in line with Jeremy's health goals. Describe final recommendations to improve Jeremy's overall health and meet his fitness goals. How should Jeremy alter his eating habits and his activity? Link your recommendations to his personal health history and his family history.

He should strive to eat more vegetables and whole grains and less fatty fast food
he should also get 30 min moderate exercise 3x per week