

Nutrition Assessment

Patient Suzie Student is twenty two years old; is currently enrolled in college and works twenty hours a week at a pet store. She is 5'4" and weighs 140 pounds making her BMI 24. This is at the upper end of a normal BMI with a BMI of 25 being overweight. Suzie is fairly active exercising four times a week for 40 to 60 minutes a day. Over the past year Suzie has lost 17 pounds. Since high school her weight has fluctuated because of her dieting patterns. Suzie is healthy and does not show any signs of chronic disease and is not taking medication or using supplements. Her dieting habits are a concern especially with the 17 pound weight loss in such a short period of time.

The amount of energy that Suzie's body needs daily is 2,185.97 calories. The amount of energy is determined by the EER which is based on a person's weight, height, gender, age, and physical activity. Here is Suzie's EER:

$$354 - (6.91 \times 22) + 1.12 \times (9.36 \times 63.6 + 726 \times 1.62) = 2,185.97 \text{ calories per day}$$

Suzie however is consuming an average of 2,630 calories per day which is an extra 445 calories on average. She is active which may help with burning the extra calories that she is consuming, however if she is not burning these extra calories with exercise the calories are turning into fat stores. Suzie's protein DRI is determined by taking her weight of 140 pounds and converting it into kilograms by dividing by 2.2, then multiplying her kilogram weight by 1 gram of protein for every kilogram of her weight this equals to 63.6 grams of protein per day that Suzie should consume. 1 gram of protein per kilogram of weight is determined by her activity level which is fairly active. Suzie's average protein intake is 86 which is above her recommended amount of 63.6. Her excess protein consumption of an average of 23 extra grams of protein per day will lead to weight gain, because protein that is not used by the body for maintenance and repair will turn into fat stores.

Suzie Student is doing well consuming her micronutrients. Since she consuming too many calories per day it makes it easier for Suzie to get an adequate amount of her micronutrients. On average Suzie is low in two micronutrient groups Vitamin E and D. To increase her Vitamin D

intake Suzie could consume more fatty fish, cod liver oil, fortified milk, and some fortified breakfast cereals. To increase her Vitamin E intake she could include plant oils, wheat germ, asparagus, almonds, peanuts, and sunflower seeds. For Suzie's Macronutrients she is consuming an extra 445 calories per day, an extra 23 grams of protein, and 128 extra grams of carbohydrate. Her fiber intake is too low which can affect her intestine and colon health, her fiber intake should be 14 grams per 1000 calories and she is consuming an average of 15 grams of fiber per 2,630 calories.

MyPyramid has recommended food intake patterns for grains, vegetables, fruits, milk, meat/beans, oils, and extra calories. Comparing Suzie's intake average with the recommended food intake is a good way to see what food groups Suzie is lacking in her diet. Suzie is consuming an average of 8.5 oz of the 7 oz of grains recommended, and is lacking in both the fruit and vegetable category. For vegetables she is consuming an average of 1.25 cups of vegetables compared with the recommended 3 cups per day. For fruit she is consuming an average of 1.5 cups of her 2 cups recommended. However Suzie consumes fruit juice that is considered as fruit, but lacks the fiber that she needs. For the meat and beans category she is doing well with an average of 5.66 ounces compared with recommended 6 ounces. Discussed earlier in the report Suzie's extra calorie allowance is exceeded according to MyPyramid.gov by an extra 483 calories she is allotted 290 extra and is consuming 772 extra calories. Her oil consumption is also a little high with 8.66 tsp compared to recommended 6 tsp daily. Of the grains she is consuming less than 10% of her grains are sourced from whole grains. Overall her fruit and vegetable consumption is very low throughout her three day record she consumes lettuce, tomato, apple, orange juice, cucumber, carrots. I would recommend dark greens, and an increase in the serving of each of the fruits and vegetables she does eat.

Suzie student is making some good nutrient dense food choices. Some nutrient dense foods include 14 ounces of non fat milk which is 54% calcium intake, 44% Vitamin D, 46% riboflavin, 38% B12, and only 6% of her daily calories. ½ cup carrots which is 185% Vitamin A, and only 1% her daily calories. 5 ounces of chicken which is 89% niacin, 39% B6, 30% phosphorus, and 13% of her daily calories; 6 ounces of ground beef which is 61% B12, 47%

zinc, 36% niacin, 19% daily calories; Orange juice which is 204% Vitamin C and 6% of daily calories; 12" tortilla 41% thiamin, 28% manganese, 16% daily calories. Suzie's discretionary calories come from her natural valley oat bar, soda, energy drinks, muffin, to many ounces of meat, cheese, frozen yogurt, and assorted bread products.

(P)Excess protein intake (E) overconsumption of protein products like meat and dairy (S) as evidence for Suzie's three day record she is consuming an extra 22.4 grams of protein per day.

(P)Low consumption of Fiber (E) not enough fruits, vegetables, and whole grains in the diet (S) as evidence Suzie's average for fiber intake is 15 grams to 2,630 calories and it should be 14 grams to every 1,000 calories.

To improve Suzie's Student diet I would recommend changing her grain choices to whole grain to increase fiber intake. For example in the turkey wrap the tortilla could be whole wheat, her Ramen could also consist of whole wheat noodles, and her pizza crust could be whole wheat. I would also encourage Suzie Student to increase her fruit and vegetable consumption. For each meal I would suggest having two fruits or vegetables not in the juice form, so her fiber intake will increase. She is doing well with consumption of tomatoes, but it would be good to increase dark greens like kale, and broccoli. It would be good to decrease her serving of grains and meat/beans each meal and add vegetables so she is getting the same amount of food on a plate for less additional calories. For her drinking habits I would advise when she knows she is going to drink beer to not drink soda during the day to decrease empty calories throughout the day. I do not think that Suzie needs use dietary supplement. If she increased her Vitamin D fortified milk consumption on an average of ½ cup a day, I think she will have an adequate Vitamin D intake. Her only other low micronutrient is Vitamin E that could also be fulfilled through diet, by increasing intake of plants oils instead of animal fats that come with her over consumption of meat products. To make improvement I would encourage Suzie Student to go grocery shopping and not eat out as often. With grocery shopping she would have control over the meals she was preparing and most food bought at restaurants are oversized, with refined grains, and few vegetables, and extra dairy and meat.