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NFCS 240

Case Study

Evaluation of Diet and Recommendations for Improvement

A) Nutritional Assessment Data

The subject who is being studied is Ms. Suzy Student. She is 22 years old, 140 pounds, 5 feet and 4 inches, and she is a student who works part-time, 20 hours a week. She has a normal BMI of 24. In the last 6 months she has lost about 17 pounds by dieting (skipping meals); something she started at a young age, but not currently doing. The only health condition she has mentioned that could affect her dietary intake is Lactose Intolerance. The main concern for lactose intolerant patients is whether or not they are getting enough Calcium, Vitamin D.

Ms. Suzy Student's estimated energy expenditure is around 2185 calories. This is calculated by taking her weight in kg. (WT of 63.3kg), her height in meters (HT of 1.62m), and physical activity level (PA of 1.12) and plugging it into the equation: $EER = 354 - (6.91 \times \text{age}) + PA \times (9.36 \times WT + 726 \times HT)$. The client's average daily energy intake is about 253 calories more than her total energy expenditure. This is a large discrepancy that can be to excess intake of macronutrients. In fact, her protein intake is a little over one and a half times over the protein RDA. In terms of intake of micronutrients, Ms. Suzy Student's only vitamin she almost met the AI and RDA for is Thiamin. The rest were mainly either double the RDA or AI, or under and she needs to double the amount of intake to meet these recommendations.

Under the recommended dietary guidelines, the client's protein and carbohydrate intake is over, and her fiber intake is under. Looking at the AMDR, Ms. Suzy Student's Fat intake is too high and carbohydrate is too low. Comparing her dietary intake to the food group recommendations on mypyramid.gov, she is over in grains and discretionary calories, and she is low in vegetables, fruits, milk, and oils. She did not make half her grains whole, or intake a variety of vegetables, and she did not make nutrient dense choices for each food group; however, she easily met the meat and bean recommendation. The discretionary calories Ms. Suzy Student attained is coming from the beers, coffee drinks, chips, pastries, candies, and condiments (ranch dressing, mayonnaise, mustard).

B) Nutrition Diagnosis

Ms. Suzy Student has an inadequate intake in Vitamins E and C and is due to the lack of fruits, vegetable, and nuts in her daily diet. In her three day dietary intake record, she only consumed 39% of Vitamin E and 79% of Vitamin C. Both these vitamins are antioxidants that aid in immune function. Without adequate intake of these two vitamins, Ms. Suzy Student may not be very strong which could benefit her during times of stress in school and work. According to her three day dietary intake record, Ms. Suzy Student also has a disorder eating pattern. She pays particular attention to her diet mainly when she is by herself, but when she is out with her friends, she binges. During day one, she was mostly by herself when she ate and this day had the least amount of calories, lower than her recommended calorie intake. During day 2, she was mainly out with friends and this day she consumed the most calories, higher than her recommended calorie intake.

C) Nutrition Intervention

The goal is to help Ms. Suzy Student to meet the DRI's or get closer to the dietary guidelines. One way to do this is to make half her grains whole. This will help increase her fiber intake. It is not recommended to suggest supplements because she is not showing any signs of a deficiency disease, and she has no illness that affects nutrient intake. Another way to help Ms. Suzy Student to meet the dietary guidelines is to suggest whole fruit and vegetables, as opposed to processed, and to choose a wide variety of both. Fruits and vegetables are high in fiber, natural phytochemicals, and vitamins and minerals that are antioxidants. This would help boost her immune system, meet many recommendations for vitamins and minerals, and add more fiber to her diet. Fish and nuts would help her meet her oil recommendation, and substituting fish and chicken for red meat will help lower calorie intake and increase desired nutrients.

It is smart to advise Ms. Suzy Student not to restrict calorie intake due to the stress and inflammation it causes on the body. Instead, advising her to listen to her hunger cues and making behavioral changes is better for her body. Explaining that the body compensates for the restricted calorie intake by slowing down the basal metabolic rate may actually result in more weight gain and may cause health problems might help Ms. Suzy Student to focus on making healthy choices, as opposed to her usual restricted diet. If she understands that being healthy and making healthy choices will make her feel good instead of dieting, losing weight, feeling sluggish, and gaining the weight back over time, then she might change her behavior and outlook on food and dieting. If she does, then she might lose weight and feel better, with energy to more throughout the day.