Nutrient Assessment

**Purpose:**

The purpose of the Nutrient Assessment is to describe patient behaviors that support positive and negative dietary and other lifestyle choices through a thorough exploration of one’s personal assessment of dietary behaviors and beliefs. The student will identify positive and negative beliefs and behaviors that will increase awareness of and compassion for patient’s individual dietary behaviors and beliefs; thus increasing the student’s ability to identify motivating influences which may enable patients to make healthier food choices. (ESO: N1, C1, S, A2, N2)

**Process: Review the rubric thoroughly before you begin the assignment.**

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| STEP 1:  Create a Meal Plan | Document three days of food and beverage intake for yourself on the Nutrient Analysis Tool. Ensure portions are documented adequately. Use restaurant resources as available if eating out. The more accurate the documentation the more clear the analysis will be. This will provide a basic understanding of the macronutrient elements of food and beverage documentation required from patients. |
| STEP 2:  Conduct a Nutrient Analysis | Once the three-day food record is completed. Construct the nutrient analysis of your macronutrients and micronutrients recommended intake per day. The accuracy of the three-day intake is essential to a well-evaluated intake. There are many free food and activity analysis tools available to your patients such as Interactive DRI for Healthcare Professionals, USDA Calculator and Counters, and Nutrition Data Food Tracking Tool. For this assignment, use the Interactive DRI for Healthcare Professionals found at <http://fnic.nal.usda.gov>. Follow the step- by-step instructions found on the top of the tool you will submit. |
| STEP 3:  Nutrient Evaluation | After the nutrient analysis is complete, and you filled out the nutrient analysis section on the tool, move to the Nutrient Evaluation section of the tool. In this section, identify and explain how the three day food diary analysis compared to the “my plate” recommendations. The discussion must be a minimum of 8-10 sentences and include two scholarly nursing reference, identifying the macronutrients that fell outside the guideline recommendations. Explain how you would advise a patient to adjust the diet based on your analysis. |
| STEP 4:  Review lifestyle, Cultural Influences | Consider and discuss your lifestyle and or cultural influences that affect your personal food choices, personal eating behaviors, and personal beliefs about food and food intake. Enter this information on the Nutrient Analysis form under Lifestyle/Cultural Influences. This discussion must be a minimum of 8-10 sentences and include a minimum of two scholarly reference. |
| STEP 5:  Explore Food-Drug Interactions | In food-drug interaction section, discuss potential food-drug interactions for the listed drugs on the analysis form. Take into consideration food/drug interaction, timing of food consumed, and other medication interactions.  Use: <http://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/GeneralUseofMedicine/UCM229033.pdf> and the Drug Interactions Checker at <https://www.drugs.com/drug_interactions.php> to assess for food-drug interactions and nursing central. |

**Nutritional Analysis Tool**

<http://fnic.nal.usda.gov>

* On the left hand side of the page, under Dietary Guidance, click the + sign and locate Interactive Tools. Once the interactive tools page appears, click on Calculators and Counters. Access the dietary reference index: **DRI Calculator for Healthcare Professionals**.
* The DRI calculator tool will calculate daily nutrient recommendations based on the Dietary Reference Intakes (DRIs) established by the Health and Medicine Division of the National Academies of Sciences, Engineering and Medicine. The data represents the most current scientific knowledge on nutrient needs; however, individual patient requirements may be higher or lower than DRI recommendations.
* Enter your height, weight, age, and activity level to generate a report of BMI, estimated daily calorie needs, in addition to the recommended intakes of macronutrients, vitamins, and minerals based on DRI data.
* Complete the following chart based on your information. Please see rubric for grading.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Body Mass Index (BMI) | | |  | | | | | |
| Estimated Daily Caloric Needs | | |  | | | | | |
| **Nutrient Analysis** | | | | | | | | |
| **Macronutrients (CHO, PRO, Lipids)** | | | Recommended Intake per day | | | | | |
| Carbohydrates | | |  | | | | | |
| * Total Fiber | | |  | | | | | |
| Protein | | |  | | | | | |
| Lipids (Fats) | | |  | | | | | |
| * Saturated fatty acids | | |  | | | | | |
| * Trans fatty acids | | |  | | | | | |
| * a-Linoleic Acid | | |  | | | | | |
| * Linoleic Acid | | |  | | | | | |
| * Dietary Cholesterol | | |  | | | | | |
| Total Water | | |  | | | | | |
| **Micronutrients: Vitamins** | | | Recommended Intake per day | | | | Tolerable UL Intake per day | |
| Vitamin A | | |  | | | |  | |
| Vitamin C | | |  | | | |  | |
| Vitamin D | | |  | | | |  | |
| Vitamin B6 | | |  | | | |  | |
| Vitamin E | | |  | | | |  | |
| Vitamin K | | |  | | | |  | |
| Thiamin | | |  | | | |  | |
| Vitamin B12 (Cobalamin) | | |  | | | |  | |
| Riboflavin | | |  | | | |  | |
| Folate | | |  | | | |  | |
| Niacin | | |  | | | |  | |
| Choline | | |  | | | |  | |
| Pantothenic Acid | | |  | | | |  | |
| Biotin | | |  | | | |  | |
| Carotenoids | | |  | | | |  | |
| **Micronutrient: Minerals** | | | Recommended Intake per day | | | | Tolerable UL Intake per day | |
| Calcium | | |  | | | |  | |
| Chloride | | |  | | | |  | |
| Chromium | | |  | | | |  | |
| Copper | | |  | | | |  | |
| Fluoride | | |  | | | |  | |
| Iodine | | |  | | | |  | |
| Iron | | |  | | | |  | |
| Magnesium | | |  | | | |  | |
| Manganese | | |  | | | |  | |
| Molybdenum | | |  | | | |  | |
| Phosphorus | | |  | | | |  | |
| Potassium | | |  | | | |  | |
| Selenium | | |  | | | |  | |
| Sodium | | |  | | | |  | |
| Zinc | | |  | | | |  | |
| **Food Diary (log) for three (3) days** | | | | | | | | |
| Date | Time | List of Food/Beverage | | | CHO | Protein | | Lipid |
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| **Nutrient Evaluation:**  According to the “my plate” recommended guidelines for nutrients, the right mix can help a patient become healthier. This means make half of the plate fruits and vegetables and make half of the grains (whole grains). Protein should include a wide variety, and fats should be limited to unsaturated fats and low fats. Recommendation totals are:   * CHO:45-65% * PRO:10-35% * Lipids (fats): 20-35%.   Based on the “my plate” guidelines, address the excess or inadequate totals in your diet. Identify specific health implications that are associated with this type of eating pattern. Identify foods that can correct or replace the inadequate macronutrients or micronutrients. If your diet is within the guidelines, explain what food choices kept you within each of the nutrient recommendations. This section should be no more than two-three paragraphs and contain a minimum of two nursing journal references. | | | | **Delete this example and write your own work here: Based on my food diary for three days, the total carbohydrate (CHO) intake was greater than 75% on all three days. The recommended intake for carbohydrates is 45-65% of total nutrients. Excess carbohydrate intake leads to obesity and diabetes (Grodner, Escott-Stump & Dorner, 2016). My total protein intake was less than the recommended 10%. To improve protein intake, I could eat fish as least two times per week, eat more plant protein from beans and peas or include nuts and seeds into the diet (“NIH”, 2016).** | | | | |
| **Lifestyle/Cultural Influences**  Minimum of 8-10 sentences.  In this section, identify any cultural influences on your food preferences and/or lifestyle patterns that may affect your food selection. Identify if these choices are linked to any specific disease process. Identify what suggestions you would give the patient for change (if any). Include two references. | | | |  | | | | |
| **Food-Drug Interactions** | | | | | | | | |
| **Medications:** In this section, identify any food-drug interactions with the specified list of medications. What patient education will you provide to prevent food-drug interactions? Consider the U.S. Food and Drug Administration (http://www.fda.gov) as a resource for avoiding food-drug interactions and nursing central. | | | | | | | | |
| Thyroid Hormone: Levothyroxine | | | |  | | | | |
| Antilipemic: Rosuvastatin | | | |  | | | | |
| Bronchodilator: Albuterol HFA | | | |  | | | | |
| Insulin: Lantus | | | |  | | | | |
| Antihistamine: Cetirizine | | | |  | | | | |
| Analgesic: Acetaminophen | | | |  | | | | |
| Analgesic: NSAIDs: Ibuprofen or Naproxen | | | |  | | | | |
| Anticoagulant: Warfarin (Coumadin) or Heparin | | | |  | | | | |
| Proton Pump Inhibitor: Esomeprazole | | | |  | | | | |
| Monoamine Oxidase Inhibitor (MAOI): Phenelzine or tranylcypromine | | | |  | | | | |
| Bipolar: Lithium | | | |  | | | | |
| Bisphosphonate: Alendronate or Ibandronate | | | |  | | | | |

Include an APA reference page with your submission.