

NUTRITIONAL CARE

Module 6

I. Statement of Purpose

The purpose of this module is to review concepts and introduce procedures related to patients with altered nutritional status.

II. Terminology

- | | |
|------------------------|--------------------------------------|
| 1. Amino acids | 16. Gastrostomy |
| 2. Carbohydrates | 17. Gavage |
| 3. Cellulose | 18. Hyperalimentation |
| 4. Clear liquid | 19. Lavage |
| 5. Dehydration | 20. Minerals |
| 6. Diet | 21. Nasogastric tube (NG) |
| 7. Dysphagia | 22. Nutrition |
| 8. Enteral feedings | 23. PEG tube |
| 9. Essential nutrients | 24. Protein |
| 10. Exchange list | 25. Therapeutic diets |
| 11. Fats | 26. Total parenteral nutrition (TPN) |
| 12. Fluid overload | 27. Vitamins |
| 13. Fluid restriction | |
| 14. Force fluids | |
| 15. Full liquid | |

III. Performance Standards (Objectives)

Upon completion of 3 hours of class plus assignments and 3 hours of clinical experience, the learner will be able to:

1. Define basic terminology.
2. Discuss the importance of balanced nutrition.
3. Discuss alternative methods of delivering nutrition.
4. Identify the six food groups of the Food Guide Pyramid and give examples of each.
5. Name the liquids/foods allowed on the five basic facility diets.
6. State the purpose of therapeutic diets.
7. Describe the purpose of major nutrients and food sources for each.
8. Describe the process for calculating fluid and dietary intake.
9. Explain how to assist the patient who can/cannot feed self.

NUTRITIONAL CARE

Module 6

IV. References:

1. Gerdin, J. (2004) *Health careers today* (3rd ed.) St. Louis: Mosby.
2. Gerdin, J. (2004) *Workbook to accompany health careers today*. (3rd ed.) St. Louis: Mosby.
3. Hegner, B. & Caldwell, E. (2003). *Nursing assistant: A nursing process approach* (9th ed.). Albany, NY: Delmar.
4. Sorrentino, S. A. (2004). *Mosby's textbook for nursing assistants* (6th ed.). St. Louis: Mosby Lifeline.
5. Food Guide Pyramid: Century for nutrition Policy and Promotion April 2005
http://www.mypyramid.gov/downloads/MyPyramid_Anatomy.pdf- Accessed on 6/14/06.
6. Food Guide: Century for nutrition Policy and Promotion April 2005
www.mypyramid.gov/downloads/MiniPoster.pdf - Accessed on 6/14/06.

MODULE 6 - NUTRITIONAL CARE

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation	Clinical Activities
Objective 1 Define basic terminology A. Terminology B. Clinical setting application	A. Lecture/ Discuss B. Use games from previous modules to review terms C. Written test	Verbalizes understanding of terms
Objective 2 Discuss the importance of balanced nutrition. A. Discuss how the body utilizes food for growth and repair and to maintain health. B. Discuss signs of good nutrition including: shiny hair, clear skin and eyes, well-developed body, uninterrupted sleep patterns, appropriate appetite, regular bowel habits, pleasant disposition.	A. Lecture/ Discuss B. Written test C. CNA-MC Module 11, objective 2, pp. 11.3-11.4: Body's need for food and fluids.	
Objective 3 Discuss alternate methods of delivering nutrition. A. The purpose of alternative nutrition is to supply nutrients when food cannot be taken orally. B. Types: 1. IV infusion 2. IV injection 3. Hyperalimentation 4. Total parenteral nutrition (TPN) 5. Gavage/ Enteral a. Nasogastric tube (NGT) b. Gastrostomy tube / PEG tube C. Safety 1. Observe IV sites for leakage,	A. Lecture/ Discuss B. Written test C. CNA-MC Module 11, objective 10, pp. 11.9-11.10: Alternative ways to administer nutrition.	Verbalizes safety issues in alternate nutrition

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation	Clinical Activities
redness, swelling. 2. Assure head of bed (HOB) elevated $\geq 30^\circ$ if receiving NG/PEG tube feedings. 3. Observe for change in stools if receiving enteral feedings.		
Objective 4 Identify the six food groups of the Food Guide Pyramid and give examples of each. A. Grains B. Vegetables C. Fruit D. Milk E. Meat/ Beans F. Oils	A. Lecture/ Discuss B. Appendix 6.4a – Anatomy of my Pyramid C. Appendix 6.4b – My Pyramid mini poster; go to websites to download information: http://www.mypyramid.gov/downloads/MyPyramid_Anatomy.pdf www.mypyramid.gov/downloads/MiniPoster.pdf D. Written test	
Objective 5 Identify the liquids/foods allowed on the five basic facility diets. A. Regular, house or select diet includes a normal diet based on the six food groups, excluding very rich foods and highly seasoned foods. B. Full liquid includes 6-8 oz. of liquid every 2-3 hours. All liquids, strained cereals, soups, sherbets, gelatin, eggnog, milk, cream & plain ice cream. C. Clear liquid - Feedings q 2-3 hrs. Allowed: tea, coffee with sugar (no cream) strained fruit or vegetable juice, gelatin, fat-free meat broth, ginger ale, 7-up, apple or grape juice. Provides inadequate nutrition to meet nutritional needs. D. Soft diet - low residue, mildly flavored, slightly seasoned. Requires little	A. Lecture/ Discuss B. Handout 6.5- Types of Diet C. Written test	Clinical Insures correct diet given to patient

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation	Clinical Activities
digestion. Food examples: soups, cream cheese, white meat chicken or turkey, fruit juices, cooked fruit, tea, coffee, milk, cream, butter, cooked cereals, eggs (not fried), cooked vegetables. E. Light - (between soft and regular). Should not be fried. Avoid rich, spicy, and coarse foods. Foods allowed if baked, boiled, broiled. Avoid rich pastries, fried foods, coarse cereals (no bran), pork.		
Objective 6 State the purpose of therapeutic diets. A. Therapeutic diets - diets which are adjusted to meet special dietary requirements. B. Low sodium restrictions - mild, moderate or severely restricted. 1. Foods high in sodium. Includes: meat, fish, poultry, eggs, milk and milk products. 2. High sodium foods: pork, potato chips, soda, pickles, processed meats, canned foods. 3. Low sodium foods: fruits, fresh vegetables. C. Calorie restricted - Prescribed for the overweight patient or certain disease processes. D. High Calorie - For patients who are underweight or malnourished. E. Low fat/low cholesterol - for patients with vascular, heart, liver or gallbladder disease. Examples of allowed foods: low-fat cottage cheese, skim milk,	A. Lecture/ Discuss B. Handout 6.5- Types of diet C. Written test D. CNA-MC Module 11, objective 7, pp. 11.6-11.7	Clinical Identifies patients to ensure correct diets received.

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation	Clinical Activities
buttermilk, yogurt, margarine, lean meats, fish, chicken. F. Low residue - Low in bulk for patients with lower digestive tract disorders. G. Diabetic diet - For patients with diabetes mellitus. Controlled caloric intake. Diet balanced by insulin, exercise and/or hypoglycemic medications. H. Pureed – For patients who have difficulty chewing or with dental problems.		
Objective 7 Describe the purpose of major vitamins and food sources for each. A. The purpose of nutrients is to supply foods that generate heat and energy, that build and repair the body tissue, and regulate body functions. B. Vitamins: Fat-soluble 1. Vit. A - maintains integrity of epithelial tissues. Helps maintain resistance to infections. Necessary in preventing night blindness. Food sources: liver, animal fats, butter, etc. 2. Vit. D - regulates absorption of calcium and phosphorus from the intestinal tract. Food sources: butter, egg yolk, fish, liver, oils, oysters, yeast, etc. Formed in the skin by exposure to sunlight. 3. Vit. E - prevention of muscular dystrophy. Normal reproduction. Food sources: lettuce, green	A. Lecture/ Discuss B. Written test - fat soluble vitamins C. Written test - Purpose of major nutrients and food sources for each. D. CNA-MC Module 11, objective 3, p. 11.4: Essential components of a balanced diet.	Clinical Demonstrates understanding of daily vitamin requirements

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation	Clinical Activities
leafy vegetable, rice, nuts, whole grains, etc. 4. Vit. K - enhances the body's clotting ability and decreases the chance of bleeding by facilitating the production of prothrombin. 5. Vit. B6 - essential for metabolism of tryptophan. Needed for utilization of certain other amino acids. Food sources: meat, cereal, grains, wheat germ. 6. Vit. B12 - produces remission in pernicious anemia. Essential for normal development of red blood cells. Food sources: liver, kidney, dairy products. C. Vitamins: Water-soluble 7. Vit. C - Essential to formation of intracellular cement substances in a variety of tissues including skin, dentine, cartilage and bones. Food sources: fresh fruits and vegetables.		
Objective 8 Describe process for calculating fluid and dietary intake. A. Changing drinking water properly B. Measuring intake C. Calculating diet consumption/ Calorie count 1. Record percentage of each food item consumed by patient on the menu slip at each meal time. 2. Place individual menu slip in appropriate place (per hospital policy) to be picked up by dietician.	A. Lecture/ Discuss B. Clinical observation C. Handout 6.8a - Calorie Count D. Handout 6.8b - Breakfast and dinner menus E. Written test F. Review I & O (refer to <i>CNA-MC</i> module 9 objective 19-26, pp: 9.18-9.22 G. <i>CNA-MC</i>, Module 6, p. 6.13: Passing Ice skill	Clinical Accurately records patient's food and liquid intake.

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation	Clinical Activities
3. Sample calorie count.		
Objective 9 Explain how to assist the patient who can/cannot feed self. A. Feeding the helpless patient B. Feeding the patient who can help	A. Lecture/ Discuss B. Clinical observation C. Lab Practice D. Written test E. CNA-MC Module 11, objective 8, pp. 11.7-11.8, 11.9-11.11: Feeding the patient	

SAMPLE TEST QUESTIONS

Directions: Circle the best answer

1. If patient is getting a clear liquid diet, it would NOT include:
 - a. Gelatin
 - b. Apple juice
 - c. Milk
 - d. Carbonated beverages

2. Foods naturally high in sodium include:
 - a. Milk
 - b. Cereals
 - c. Vegetables
 - d. Fruits

3. It is especially important to report to the nurse that the patient only ate two-thirds ($\frac{2}{3}$) of a meal when the diet ordered is:
 - a. Low-salt diet
 - b. Calorie-restricted diet
 - c. Diabetic diet
 - d. House diet

4. When feeding a patient who requires assistance, it is important to:
 - a. Sit, to show that you are relaxing with the patient.
 - b. Stand, so that you can get other things done.
 - c. Avoid talking to speed things up.
 - d. Have your meal at the same time.

SAMPLE TEST QUESTIONS - KEY

1. If patient is getting a clear liquid diet, it would NOT include:
 - a. Gelatin
 - b. Apple juice
 - c. **Milk**
 - d. Carbonated beverages

2. Foods naturally high in sodium include:
 - a. **Milk**
 - b. Cereals
 - c. Vegetables
 - d. Fruits

3. It is especially important to report to the nurse that the patient only ate two-thirds (2/3) of a meal when the diet ordered is:
 - a. Low-salt diet
 - b. Calorie-restricted diet
 - c. **Diabetic diet**
 - d. House diet

4. When feeding a patient who requires assistance, it is important to:
 - a. **Sit, to show that you are relaxing with the patient.**
 - b. Stand, so that you can get other things done.
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Anatomy of MyPyramid

One size doesn't fit all

USDA's new MyPyramid symbolizes a personalized approach to healthy eating and physical activity. The symbol has been designed to be simple. It has been developed to remind consumers to make healthy food choices and to be active every day. The different parts of the symbol are described below.

Activity

Activity is represented by the steps and the person climbing them, as a reminder of the importance of daily physical activity.

Moderation

Moderation is represented by the narrowing of each food group from bottom to top. The wider base stands for foods with little or no solid fats or added sugars. These should be selected more often. The narrower top area stands for foods containing more added sugars and solid fats. The more active you are, the more of these foods can fit into your diet.

Personalization

Personalization is shown by the person on the steps, the slogan, and the URL. Find the kinds and amounts of food to eat each day at MyPyramid.gov.

Proportionality

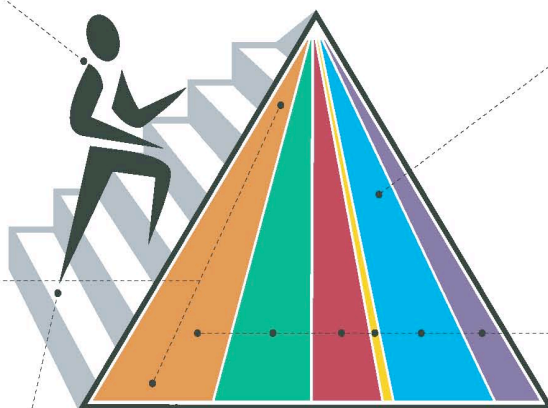
Proportionality is shown by the different widths of the food group bands. The widths suggest how much food a person should choose from each group. The widths are just a general guide, not exact proportions. Check the Web site for how much is right for you.

Variety

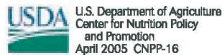
Variety is symbolized by the 6 color bands representing the 5 food groups of the Pyramid and oils. This illustrates that foods from all groups are needed each day for good health.

Gradual Improvement

Gradual improvement is encouraged by the slogan. It suggests that individuals can benefit from taking small steps to improve their diet and lifestyle each day.



MyPyramid.gov
STEPS TO A HEALTHIER YOU



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GRAINS Make half your grains whole	VEGETABLES Vary your veggies	FRUITS Focus on fruits	MILK Get your calcium-rich foods	MEAT & BEANS Go lean with protein
Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day 1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or 1/2 cup of cooked rice, cereal, or pasta	Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens Eat more orange vegetables like carrots and sweetpotatoes Eat more dry beans and peas like pinto beans, kidney beans, and lentils	Eat a variety of fruit Choose fresh, frozen, canned, or dried fruit Go easy on fruit juices	Go low-fat or fat-free when you choose milk, yogurt, and other milk products If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages	Choose low-fat or lean meats and poultry Bake it, broil it, or grill it Vary your protein routine – choose more fish, beans, peas, nuts, and seeds
For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.				
Eat 6 oz. every day	Eat 2½ cups every day	Eat 2 cups every day	Get 3 cups every day; for kids aged 2 to 8, it's 2	Eat 5½ oz. every day
Find your balance between food and physical activity - Be sure to stay within your daily calorie needs. - Be physically active for at least 30 minutes most days of the week. - About 60 minutes a day of physical activity may be needed to prevent weight gain. - For sustaining weight loss, at least 60 to 90 minutes a day of physical activity may be required. - Children and teenagers should be physically active for 60 minutes every day, or most days.		Know the limits on fats, sugars, and salt (sodium) - Make most of your fat sources from fish, nuts, and vegetable oils. - Limit solid fats like butter, stick margarine, shortening, and lard, as well as foods that contain these. - Check the Nutrition Facts label to keep saturated fats, <i>trans</i> fats, and sodium low. - Choose food and beverages low in added sugars. Added sugars contribute calories with few, if any, nutrients.		



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TYPES OF DIET

TYPE OF DIET	DESCRIPTION	COMMON PURPOSE
Bland	Foods that are mild in flavor and easy to digest; spicy foods and fried foods are omitted.	Avoids irritation of the digestive tract, as with ulcer and colitis patients.
Diabetic	Precise balance of carbohydrates, protein, and fats. Devised according to the needs of individual patients.	For diabetic patients; matches food intake with the insulin and nutritional requirements.
High Calorie	Foods high in protein, minerals and vitamins.	For patients who are underweight or malnourished.
High Protein	Meals supplemented with high-protein foods, such as meat, fish, cheese, milk and eggs.	Assists in the growth and repair of tissues wasted by disease.
Light or Soft	Foods that are soft in consistency; no rich or strongly flavored foods that could cause distress.	Final stage for post-operative patient before resuming regular diet.
Liquid	Clear: broth, tea, ginger ale, jello (without pieces of fruit). Full: All liquids, custard, junket, ice cream, sherbet, soft-cooked eggs.	Usually for patients who have had surgical operations.
Low Calorie	Low in cream, butter, cereals, desserts, and fats.	For patients who need to lose weight.
Low Cholesterol	Low in eggs, whole milk and meats.	Helps regulate the amount of cholesterol in the blood.
Low Fat	Limited amounts of butter, cream, fats and eggs.	For patients who have difficulty digesting fats, as in gallbladder, cardiovascular and liver disturbances.
Low Residue	Food low in bulk; omits foods that are difficult to digest.	Spares the lower digestive tract, as with patients having rectal diseases.
Low Sodium	Limited amount of foods containing sodium. No salt allowed on tray.	For patients whose circulation would be impaired by fluid retention; patients with certain heart or kidney conditions.

Normal/ Regular	Provides all essentials of good nourishment in normal forms.	For patients who do not need special diets.
Pureed	All food has a mashed or smooth consistency; no chunks.	For patients who have difficulty chewing or have few or no teeth.
Soft (Mechanical)	The foods are the same as on a normal diet, but they are chopped or strained.	For patients who have difficulty in chewing or swallowing.
Tube Feeding	Milk formula or liquid forms of meat, vegetables, etc. Given to the patient through a tube.	For patients who, because of a condition such as oral surgery, can't eat normally.

CALORIE COUNT

EQUIPMENT:

Calorie Count sheet

CRITERIA:

Accurately tallies a calorie count

1. Identify patient and verify that a calorie count is needed.
2. Encourage patient to eat all of food on tray or as much as they are able to eat – assist as needed.
3. Remove tray and estimate amount of each item eaten.
4. Mark the percent of each item eaten on the patient's menu.
5. Place menu in collecting envelope in patient's room or at nurse's station depending on facility policy. (Some facilities have actual calories listed by each item on the menu to assist in calculating caloric intake.)
6. Total calories at the end of shift if required by your facility. (Some facilities may have the dietician come to the patient's room to collect menus that have been marked with percentage eaten.)
7. Inform licensed nurse if patient eats less than 50% of meal.

BREAKFAST
(low calorie, low sodium)

Your Menu For Tomorrow

Juices (1 Fruit Ex.)

- ☐ Orange- _ cup
- ☐ Apple- 1/3 cup
- ☐ V-8 L.S. - _ cup

Fruits (1 Fruit Ex.)

- ☐ Banana Half
- ☐ Fresh Fruit

Cereals (1 Bread Ex.)

- ☐ Hot Cereal of the Day
- ☐ Raisin Bran
- ☐ Rice Krispies
- ☐ Shredded Wheat

Entrees

- ☐ Scrambled Eggs (1 Meat Ex.)
- ☐ Cholesterol-Free Scrambled Egg (1 Meat Ex.)
- ☐ Soft-Cooked Egg (1 Meat Ex.)
- ☐ French Toast with Diet Syrup (1 Meat, 1 Br Ex.)

Breads (1 Bread Ex.)

- ☐ White toast
- ☐ Wheat toast
- ☐ Raisin Toast
- ☐ English muffin, half
- ☐ Low-salt toast

Miscellaneous

- ☐ Margarine (1 Fat Ex.)
- ☐ Diet Jelly (Free)
- ☐ Coffee Creamer
- ☐ Lemon
- ☐ Sugar substitute
- ☐ Pepper

Beverages

- ☐ Coffee
- ☐ Decaf Coffee
- ☐ Decaf Tea
- ☐ Hot Tea
- ☐ 2% Milk (Omit 1 Fat)
- ☐ Non Fat Milk

Meat Ex.	<u>1</u>
Bread Ex.	<u>2</u>
Fruit Ex.	<u>2</u>
Fat Ex.	<u>1</u>
Milk Ex.	<u>1</u>

Name _____ Room _____

Day: **M T W TH F SAT SUN**

DINNER

Your Menu For Tomorrow

Appetizers

- ☐ V-8 Juice LS (1 Fruit Ex.)
- ☐ Orange Juice (1 Fruit Ex.)

- ☐ Cream Soup, LS (1 Bread Ex.)
- ☐ Vegetable Soup, LS (1 Bread Ex.)
- ☐ Broth, LS (Free)

Mini Salads

- ☐ Tomato slices
- ☐ Tossed green
- ☐ Molded salad, LC

Salad Dressing

- ☐ French, LC
- ☐ Italian, LC
- ☐ Thousand Island, LC

Sandwiches

(Offered on Day Indicated)

M, TH, SAT Roast Beef (2 Meat, 2 Bread)
T, SAT Club House L.S. (2 Meat, 2 Bread)
W, F Tuna Salad L.S. (2 Meat, 2 Bread, 1 Fat)

Entrees

- ☐ Fruit Plate (2 Meat Ex., 2 Fruit Ex.)
- ☐ Fish Fillet (3 Meat Ex.)
- ☐ Spaghetti, LS (2 Meat Ex., 2 Bread Ex.)
- ☐ Swiss Steak, LS (3 Meat Ex.)

- ☐ Chef's Salad, LS (3 Meat Ex.)
- ☐ Omelet (2 Meat Ex.)
- ☐ Chicken, LS (3 Meat Ex.)
- ☐ Hamburger (3 Meat, 2 Bread)

Vegetables

- ☐ Baked Potato Half (1 Bread)
- ☐ Mashed Potatoes (1 Bread)
- ☐ Rice Pilaf (1 Bread)

- ☐ Vegetable of the day

Dessert (1 Fruit Ex.)

- ☐ Fresh Fruit
- ☐ Gelatin, LC (Free)
- ☐ Custard, LC
- ☐ Pudding, LC.
- ☐ Peaches, LC

Miscellaneous

- ☐ Omelet Dinner Roll (1 Bread Ex.)
- ☐ Crackers, LS (1 Bread Ex.)
- ☐ Lemon
- ☐ Margarine
- ☐ Sugar substitute
- ☐ Pepper

Beverages

- ☐ Coffee
- ☐ Decaf Coffee
- ☐ Decaf Tea
- ☐ Hot Tea

- ☐ 2% Milk (omit 1 Fat Ex.)
- ☐ Nonfat Milk
- ☐ Diet 7-Up

Name _____ Room _____

Day: **M T W TH F SAT SUN**