Nutritional Needs
Eat Right
Objectives:
Upon completing this lecture, the student will be able to:

- State the classification of nutrients.
- Describe the essential food groups.
- Assess nutritional status of an Individual.
- Identify the common related to food intake.
- Discuss nursing management of the common problems related to food intake.
- Describe the various types of therapeutic diet.
- Explain the various methods of artificial feeding.
- Mention nurse's role in the provision of food to the patient.
- Mention nurse's role in feeding the patient.
Out Line:
- Classification of nutrient,
- The essential food groups,
- Nutritional assessment.
- Common problems related to food Intake.
- Various types of therapeutic diet.
- Various methods of artificial feeding
- The nurse's role in the provision of food to the patient.
- The nurse's role in feeding the patient.
I- Introduction:
All body cells require adequate nutrition. The nutrients essential to health are carbohydrates, proteins, fats, vitamins and minerals. Water is essential to maintain fluid balance in the body.

**All of these are required to:**

1. Build and repair tissues.
2. Provide energy and heat.
3. Synthesis regulatory substances such as enzymes and hormones.
Nutrients are made available to the body by process of digestion.

The digestive process break them down mechanically (chewing and intestinal movements) and chemically (oral and gastrointestinal secretion) so that they can be absorbed into the blood to reach the cells.
II- Classification of Nutrients:
Carbohydrates
What is a healthy diet?
1- Carbohydrates:

is the major source of energy:

a. Small amounts are stored in body as glycogen.
b. An excess of the body's needs is stored as fat.
c. Small amount is used for synthesis of some enzymes and hormones.
d. One gram of carbohydrate yields 4 calories. A calorie is the amount of heat necessary to raise the temperature of 1 kilogram of water 1°C.
2. Fats:

- are the most concentrated form of energy. They are continuously available in adipose tissues.
- a. Excess of carbohydrates are stored as fats.
- b. Fats are essential source of fatty acids. They are means for fat soluble vitamins.
- c. When the diet supply is few in calories; adipose tissue supply some of the fat to meet the body requirement.
- d. One gram of fats yields 9 calories.
Fats
CHECK OUT OUR TRANS FAT SPECIALS FOR THE DAY!!
Protein
Mineral salts:
3-Protein:

Is essential for tissue synthesis and regulation of certain body function:

a. Amino acids cannot be synthesized in body, it should be supplied in diet.
b. Proteins are not stored in the body.
c. Plasma protein and albumin are essential for maintaining osmotic pressure.
d. One gram of proteins yields 4 calories.
4- Mineral salts:

They are elements that enter into the structure of the cells

a. Some minerals are constituents of enzymes e.g. iron in cytochrome and of hormones e.g. iodine in thyroxin

b. Some minerals are essential for maintenance of osmotic pressure, cell permeability acid base balance and muscle contraction, e.g. sodium chloride.
5- Vitamins:

- They are organic substances essential for growth and normal metabolism.
- Each vitamin has specific function.
- Excess amount of vitamins not needed by the body they are excreted in the urine.

1. Fat soluble vitamins: A, D, E, and K
6- Water;

Is essential for all body process.
- It carries nutrients, which are soluble in water, to the cells and remove wastes through lungs, intestine, skin and kidneys.
- It regulates body temperature.
- It functions as body Lubricants e.g. mucus secretion in respiratory and gastrointestinal system.
- Death is likely to occur following water deprivation in few days.
7-Electrolytes:

Are required for efficient function and distribution of all fluid within their normal range.

They are also essential for acid base e.g. sodium, potassium, calcium, bicarbonate, chloride, magnesium and phosphates.
III- Essential Food Groups:
Diet of individuals should be well balanced. It should contain one or more items from the following food groups:

1- **Milk and milk product**:- Milk, cheese, butter, ice -cream.

2- **Vegetable-Fruit Group** :- All fruits including citrus, vegetables including green leafy vegetables and yellow vegetables.

3- **Meat Group**;-**Meat.** Poultry, eggs, fish, legumes

4- **Bread and Cereal Group** and potatoes.
Nutritional Assessment
Nutritional assessment includes:

Food intake pattern, clinical observation anthropometrics measurements and laboratory analysis.

I: Assessment of food intake patterns;
This should include the number of meals and snacks eaten each day, the types and amount of food eaten, food omitted and its reasons and methods of food preparation.
Signs of good nutrition

1- Body well developed.
2- Weight average to height is suitable according to sex and body frame
3- Muscles well developed.
4- Skin healthy turgor and color.
5- Good layer of subcutaneous fat.
6- Mucus membrane of the mouth and eyelid is reddish.
7- Hair smooth and glossy.
8- Eyes clear, no dark circles under them.
9- Facial expression alert and without strain.
10- Correct posture,
11- Good attitude and full of life.
12- Sleeping hours: are adequate according to age and sex.
13- Good appetite
14- Digestion and elimination are normal, the patients does not complain from e.g. diarrhea, constipation or indigestion
15- Appearance: general well-being.
II Anthropometric Measurements:

1- Weight
2- Height
3- Arm circumference: Which is measured at the midpoint of the upper arm and gives an estimate of muscle mass
4- Skin fold thickness: Which provides information about the amount of subcutaneous fat in certain areas as triceps. Skin fold is measured by a special instrument called skin calipers.
Anthropometric Measurements:
Arm circumference
Skin fold thickness:
III Laboratory Analysis

Serum hemoglobin, haematocrit, total serum protein and serum albumin, urine creatinine, blood urea nitrogen (B U N).

Blood sugar level (to determine the saturated fat metabolism) mineral and vitamin level specific gravity of urine.
Common problems related to food Intake
1-Chewing or mastication problems:

- People who have no teeth or loose-fitting dentures, painful teeth, gingivitis, jaw injuries or oral surgery are unable to chew effectively.

- Assessment of the oral cavity should be done to discover such problems. These persons need a soft or liquid diet and their chewing problem should be corrected as possible to provide adequate nutrition.
dysphagia
2- Swallowing difficulties (dysphagia):

- A swallowing reflex occurs when any substance is placed on the posterior portion of the tongue.

- Another reflex called gag reflex that is a violent coughing occurs to keep foreign substance from entering the trachea.

- These reflexes are lost under general anesthesia or unconsciousness.
Therefore, the nurse should never offer oral food or fluids to these patients until they regain consciousness.

Aspiration of oral fluid due to incomplete swallowing or gag reflex can lead to pneumonia which may lead to death due to edema and inflammation which may occlude the air way.
Other causes of dysphagia may be: tumors or stricture of the esophagus or very old and weak patient.
Assessment of dysphagia:

is done by sucking small amounts of ice chips.

**Nursing Management:**

- Soft food such as puree potato or vegetables..... etc.
- Stimulate the swallowing reflex, if the patient is conscious, liquids are given but careful not to be aspirated in the respiratory tract, use strew if necessary. Therefore, food should be given in suitable texture, and consistency according to the patient's condition.
Anorexia
Nausea
3- Anorexia, Nausea and Vomiting;

A- Anorexia: is loss of appetite or a lack of desire for food.

B- Nausea: is a feeling of sickness with a desire to vomit

Anorexia, dizziness, headache, feeling of faintness and weakness, salivation and pallor are associated with nausea.

C- Vomiting: is forceful expulsion of gastric content through the mouth.
Assessment for anorexia, nausea and vomiting:

Gather information from the patient and his family regarding:

1 - Nature of the patient's discomfort.
2- The length of time since onset of these symptoms
3- The severity of the symptoms
4- The relationship of these symptoms to eating habits, personal life style, and motional stress
5- Identify the specific causal factors if possible. As eating something disagreed with the person, taking a medication which may cause gastrointestinal side effect, emotional stress or unpleasant odors, Sights, etc
6- Vomitus should be assessed for both the nature of it and its characteristics.

For vomiting:
- observe if it is preceded by nausea,
- its frequency,
- its relation to intake of food or administration of drugs,
- the emotional state of the person.
For characteristics of vomitus:

Observe:

- amount,
- color,
- consistency (watery, liquid or solid)
- the presence of undigested food, or other foreign substances and
- odor.
Nursing management of a patient with anorexia nausea or vomiting
The nursing care is directed towards three basic goals:

1 - The prevention of these symptoms whenever possible.
2 - The maintenance of hydration and nutritional status.
3 - The maintenance of safety, comfort and hygiene of the patient.
1- The preventive measures:

- Help the patient to identify situations and stimuli, which cause these symptoms and then eliminate these from the patient's environment.

- Provide clean pleasant and well ventilated environment which stimulates appetite and prevents nausea and vomiting by preventing unpleasant odor and sights.
- Provide physical comfort by elimination of pain, appropriate positioning, providing oral hygiene, reduction of fever.

- Relieve worry, fear and excitement which inhibit the desire of food and delay the passage of food through the gastrointestinal tract.

- Give anathematic drug if prescribed by the physician.
2- Maintenance of Hydration and Nutritional status:

- Encourage the patient to take fluids regularly give small amounts of fluid at frequent intervals.
- Give clear fluids only as tea until vomiting subsides.
- Provide small amount of food, which should be served attractively to stimulate appetite.
If the patient is unable to tolerate food and fluids by mouth, preterit fluids (I.V) may be prescribed or may be fed by a gastric tube (gavages feeding).

Keep accurate recording and reporting of fluid intake and out-put to maintain fluid and electrolyte balance.

When the patient tolerates foods, the diet should be high in carbohydrate and protein because of the body's need for energy and tissue-building nutrients.
3- Safety, Comfort and Hygienic Measures:

- The patient's head should be raised and supported so that the vomitus can be drained out of the mouth.
- If the patient is lying down his head should be turned to one side and his body is placed in side lying position if possible to prevent aspiration of vomitus.
- Insure patient's privacy.
- The nurse should stay with the patient while he is vomiting.
- Provide tissue paper to wipe mouth.
- Mouth care, face and hand wash to help him feel more comfortable and relaxed.
- Change soiled linen.
- The room should be aired and the patient is allowed to rest.
Therapeutic diet:
Hospitals usually provide modifications of daily normal diet according to the diagnosis of patient. Diet modifications are necessary to:

1- Correspond with the body's ability to metabolize certain nutrients.

2- Correct nutritional deficiencies related to the disease.

3- Eliminate certain foods from the diet that may be harmful to person with the disease.
Types of therapeutic diet:

I. Diet for patients with cardiovascular disease:

   Coronary heart disease and atherosclerosis due to elevated cholesterol:

   **Food modification:**

   - **Fat controlled diet:**
     
     reduce total fat and replace saturated fats with monounsaturated fat and restriction of food high in cholesterol.

     This type of diet reverses and slows down the condition.
**Food to avoid:** saturated fat (animal fat, gravies, sauces, egg yolk, high fat meats, and whole milk).
Hypertension, congestive heart failure and myocardial infarction;

Food Modification

- **Sodium restricted diet:** according to severity of condition (mild 2-3g), (moderate 1000 mg) and strict 25 mg)/day.

- Reduce sodium level to aid in reducing total fluid volume, thereby reducing blood pressure, heat workload and excess fluid retention in the body (edema).

- High carbohydrate soft diet is advisable.
Other dietary instructions:

- Small frequent meals.
- Easily digested food.
Food to avoid:

- High salted food, reduce common salt in cooking and table salt (depends on level of restrictions).

- Canned food, processed food and soda containing beverage, backing powder, backing soda.

- Gas forming food as: cabbage and onion. ; Fatty and fried food.
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2- Diet for patients with gastrointestinal tract disease:

**Peptic ulcer, gastritis**

- Those patients have erosion in the mucus membrane, of the stomach or duodenum due to an increase in concentration or activity of acid-pepsin or due to decrease in the normal resistance of the mucosa.

- The object of the diet for peptic ulcer and gastritis: is to avoid over secretion and hyper motility of the gastrointestinal tract to avoid further ulceration of the mucosa and allow healing of the formed ulcers.
**Food modification:**

- Is done by eliminating food that is chemical or mechanical irritants.
- This type of food will reduce gastrointestinal irritation and improve food tolerance: protein rich to neutralize gastric acidity and help healing of gastric ulcer as egg, minced meat, milk ....
Food to avoid:

- Fried food, strong spices, caffeine and alcohol, smoking.

- If large meals are not tolerated by the patient, small frequent meals is advised.
Ulcerative Colitis:

- **Low residue diet**: reduce fibers and cellulose to reduce physical irritation to mucosa.

- **Low fat diet**: which reduces gastric secretion and motility N.B. encourage regular meal times.
Food to avoid:

- Fruits and vegetables only strained juices.
- Raw fruits and vegetables (except banana), raw plant fibers, whole grains.
- Milk products butter, cheese, ice cream) "Avoid coffee, tea alcohol and tobacco"
- Food that has seeds, tough skins and fiber e.g. berries, celery corn, cabbage.
- Cola and beverage containing soda.
3- Diet for patients with liver disease:

**Food Modification:**

- **Hepatitis:** ample amount of protein, high carbohydrate intake, restricted fat allowance according to patient tolerance.
  
  **Rationale:** To protect the organ from further stress

- **Cirrhosis:** vitamin supplements, sodium restricted diet should provided to patients. if edema and ascitis exist, high carbohydrate intake.
  
  **Rationale:** Increased carbohydrate will spare protein and provide glycogen to support the liver.
## Basic Communication Skills Profile

<table>
<thead>
<tr>
<th>Communication</th>
<th>Order Learned</th>
<th>Extent Used</th>
<th>Extent Taught</th>
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<tbody>
<tr>
<td>Listening</td>
<td>First</td>
<td>First</td>
<td>Fourth</td>
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<tr>
<td>Speaking</td>
<td>Second</td>
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<td>Reading</td>
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<td>Writing</td>
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Meaning

- Listening Is With The Mind
- Hearing With The Senses
- Listening Is Conscious.
- An Active Process Of Eliciting Information
- Ideas, Attitudes And Emotions
- Interpersonal, Oral Exchange
Fallacies about Listening

- Listening is not my problem!
- Listening and hearing are the same
- Good readers are good listeners
- Smarter people are better listeners
- Listening improves with age
  - Learning not to listen
  - Thinking about what we are going to say rather than listening to a speaker
  - Talking when we should be listening
  - Hearing what we expect to hear rather than what is actually said
  - Not paying attention
    (preoccupation, prejudice, self-centeredness, stereotype)
- Listening skills are difficult to learn
Stages of the Listening Process

- Hearing
- Focusing on the message
- Comprehending and interpreting
- Analyzing and Evaluating
- Responding
- Remembering
Barriers to Active Listening

- Environmental barriers
- Physiological barriers
- Psychological barriers
  - Selective Listening
  - Negative Listening Attitudes
  - Personal Reactions
  - Poor Motivation
How to Be an Effective Listener

What You Think about Listening?

- Understand the complexities of listening
- Prepare to listen
- Adjust to the situation
- Focus on ideas or key points
- Capitalize on the speed differential
- Organize material for learning
How to Be an Effective Listener (cont.)

- What You Feel about Listening?
  - Want to listen
  - Delay judgment
  - Admit your biases
  - Don’t tune out “dry” subjects
  - Accept responsibility for understanding
  - Encourage others to talk
How to Be an Effective Listener (cont.)

What You Do about Listening?

- Establish eye contact with the speaker
- Take notes effectively
- Be a physically involved listener
- Avoid negative mannerisms
- Exercise your listening muscles
- Follow the Golden Rule
Feedback Skills

- Positive vs. Negative Feedback
- Positive feedback is more readily and accurately perceived than negative feedback
- Positive feedback fits what most people wish to hear and already believe about themselves
- Negative feedback is most likely to be accepted when it comes from a credible source if it is objective in form
- Subjective impressions carry weight only when they come from a person with high status and credibility
Developing Effective Feedback Skills

- Focus on specific behaviours
- Keep feedback impersonal
- Keep feedback goal oriented
- Make feedback well timed
- Ensure understanding
- Direct feedback toward behaviour that is controllable by the recipient
Group Think

- Phenomena in which the norm for consensus overrides the realistic appraisal of alternative course of action
Presentation Skills

Ideas, concepts or issues talked about or spoken to a group or audience

Public speaking is one of the most feared things
“\textit{I could make such a fool of myself}”

Skills required to give a good presentation can be developed
\textit{Preparation is the Key}
Presentation Skills

- Preparation/Planning is the first step on the ladder to success

- Aspects in the development of a good presentation
  - Self Centered (Self)
  - Audience Centered (Audience)
  - Subject Centered (Material)

“I want (who) to (what) (where, when and how) because (why)”
Presentation Skills

- Helpers

*What* do you want to present (content)?

*Why* do you want to present (purpose)?

*Where* will you be presenting (place)?

*How* do you want to present (words to be used or not, slides to be used)

*Who* is your audience?
Presentation Skills

- Preparation: Audience Analysis

  - What is the audience interested in
  - What does the audience want
  - What does the audience already know and needs to know
  - What are their needs, expectations from this presentation
  - How will the audience benefit from this presentation
Presentation Skills

- Structure the content in line with the audience’s needs
- What do you want to tell the audience?
- What is your objective?
- Prepare keeping in mind the time allotted
- Anticipate the questions and prepare
- Collect material from a variety of sources
- Arrange points logically and sequentially
- Prepare handouts as well
Presentation Skills

- Structuring the presentation
  2 to 2.5 mins --- opening/beginning
  20 to 21 mins --- middle section
  2 to 3 mins --- closing/end
  5 mins --- questions
Presentation Skills

The Beginning
- Should be carefully designed
- Get attention
  - shock, humour, question, story, facts & figures
  - well rehearsed yet natural
- Motivate audience to listen
  - listen to their needs
Presentation Skills

Preparation – Structure

- Sequence should be logical & understandable
- Interim summaries- Recaps
- Value of visual aids-flip charts, handouts etc.
Presentation Skills

Prepare Closing

- Last 2 to 2.5 minutes are as critical as the first five minutes for a successful presentation
- Summarize - highlight important points
- Suggest action - what to do and when, where and how to do it
Presentation Skills

Stage Fright
- Everyone has it to some degree
- Can be used constructively
- Key issue is not elimination of fear
  Instead channel the energy it generates for an effective presentation
Presentation Skills

Effective Delivery

- Be active - move
- Be purposeful - controlled gestures
- Variations – vocal (pitch, volume, rate)
- Be natural
- Be direct – don’t just talk in front of the audience talk to them
Group Facilitation

Verbal Communication - barriers
- Speaking too fast
- Using jargon
- Tone and content
- Complicated or ambiguous language
- Not questioning
- Physical State of the audience
Presentation Skills

Sensitivity to the audience

- “see” the audience
- Take non-verbal feedback
  - congruent and incongruent body language
- Modify to meet audience needs
- Don’t just make it as a presentation
Presentation Skills

Handling Questions

- Do not get confused
- You are not supposed to know everything
- Anticipate and keep answers ready
- Sometime questions themselves give you a lead to highlight your point of view
Presentation Skills

Visual Aids
- While using an overhead projector face the audience while talking
- Point with a pen
- Appropriate lighting
- Watch the colours
- Ensure clear visibility
- 10 lines, 10 words per line
Presentation Skills

So to conclude:

Always prepare
Channelize you fear
Interact with your audience