

# Growth and Development from Nursing Perspective

# **Nutritional Needs Across Age Groups:**

# 1) Nutritional Needs Of The Newborn:

- Caloric intake: 105- 108 kcal/kg/day and Fluid requirements: 140 -160 mL/kg/day
- Formula fed newborns double their birth weight between 3.5 - 4 months of age.
- Breastfed newborns double their birth weight at 5 months of age.

## 2) Infant Nutritional Pattern

<u>Age</u>	<u>Feeding Frequency</u>	<u>Amount:</u>
<b>Birth -1 month</b>	■ Every 3-4 Hours	■ 60-90 mL per feeding
<b>2-4 months</b>	■ Every 3 – 4 Hours	■ 90-120 mL per feeding

## 2) Infant Nutritional Pattern

<u>Age</u>	<u>Feeding Frequency</u>	<u>Amount:</u>
<b>4-6 months</b>	<ul style="list-style-type: none"><li>▪ Begins baby food, usually rice cereal</li><li>▪ Eat 4 or more times daily</li></ul>	<ul style="list-style-type: none"><li>▪ 100-150 mL per feeding</li></ul>
<b>6-8 months</b>	<ul style="list-style-type: none"><li>▪ Eats baby food: rice cereal, fruits, vegetables</li><li>▪ Eats 4 times daily</li></ul>	<ul style="list-style-type: none"><li>▪ 160-225 mL per feeding</li></ul>

## 2) Infant Nutritional Pattern

<b>Age</b>	<b><u>Feeding Frequency</u></b>	<b><u>Amount:</u></b>
8-10 months	<ul style="list-style-type: none"><li>▪ Enjoys soft finger foods,</li><li>▪ Eats 4 times daily</li></ul>	<ul style="list-style-type: none"><li>▪ 160 mL per feeding</li></ul>
10-12 months	<ul style="list-style-type: none"><li>▪ Eats most soft table foods with family</li><li>▪ Uses cup with or without cap</li><li>▪ Try to feed self with spoon, spills often.</li><li>▪ Eat 4 times daily</li></ul>	<ul style="list-style-type: none"><li>▪ 160-225 mL per feeding</li></ul>

# Recommendations to Introduce Solid Foods in Infancy:

- ❖ Use single-food not combination meals.
- ❖ Introduce one new food at a time, waiting at least 3 days to introduce another because if a food allergy or intolerance develops, it will be easy to identify.
- ❖ Avoid adding sugar, salt, and spices to foods.

# Recommendations to Introduce Solid Foods in Infancy:

<u>Age</u>	<u>Type of food</u>
4 – 6 months	<ul style="list-style-type: none"><li>• Rice Cereal</li></ul>
6 – 8 months.	<ul style="list-style-type: none"><li>• Fruits &amp; Vegetables</li></ul>
9 months	<ul style="list-style-type: none"><li>• Egg yolks</li></ul>
8 – 10 months	<ul style="list-style-type: none"><li>• Meats</li></ul>
12 months	<ul style="list-style-type: none"><li>• Eggs whites ( are the one of big allergy-triggering)</li><li>• Honey</li></ul>

# Weaning

- It is the process of introducing any non-milk food into the infant's diet,
- 4-6 months of age because:
- Milk supply may no longer meet the nutrient requirements for growth
- Intestinal tract better able to handle foreign proteins
- Kidneys better able to tolerate increased protein loads

### 3) Toddlers and preschoolers (1-6 years)

#### Nutritional Pattern

- Provide a variety of food
- Provide small frequent meals
- Provide adequate green leafy vegetable, fruits and dairy sources for calcium intake
- Provide food in a colorful and appealing way.
- Don't force to eat or bribe the child with sweets or treats.
- Limit television watching while eating

## 4) School Age Children Nutritional Pattern (6-12 years)

- Food choices largely depend a lot on family food choices, peer groups, media.
- Provide variety in meals. Avoid Monotony
- Encourage healthier options for snacks rather than fried and unhealthy snacks like crisps

## 4) School Age Children Nutritional Pattern (6-12 years)

- School meals and packed lunches are important part of daily nutritional intake.
- Balance food with physical activity.
- Provide plenty of grains, fruits and vegetable, low fat dairy products.
- Moderate sugars and salt.

## 4) School Age Children Nutritional Pattern (6-12 years)

- Involve the child in making food choices.
- Encourage the child to eat with family at the dining table.
- Never skip breakfast.
- Don't serve food in front of TV
- Avoid foods rich in saturated fats and cholesterol.

## 5) Adolescents Nutritional Pattern (12 to 18 years)

- Consume balanced and small frequent meals
- Teach adequate portion sizes of foods from all food groups.
- Choosing the diet with plenty of grains, vegetables, dairy products.
- Choosing the diet low in salt, sugar, fat (saturated fats).

## 5) Adolescents Nutritional Pattern (12 to 18 years)

- Involve the adolescent in making good choices as well as preparations of healthy food.
- Don't forget to discuss diet concerns and implications of diet restrictions.
- Drink less of sugar-sweetened beverages (e.g., soft drinks, sport drinks, fruit drinks,

# Methods OF Nutrition Assessment

❖ Deal with the individual and measure objective criteria.

It can be summarized as ABCD:

- a) Anthropometric,
- b) Biochemical, laboratory,
- c) Clinical,
- d) Dietary evaluation

# 1-Anthropometry Measurements:

It is the measurement of body:

- Height,
- Weight,
- Skin Fold Thickness,
- Circumference of (Arm, Head, Chest) and Proportions(sizes).

## 2-Biochemical and Laboratory Assessment:

Analysis of :

- Plasma ,
- Blood Cells ,
- Urine,
- Tissue From Liver ,
- Bone, Hair

## 3-Clinical Examination:

It utilizes a number of physical signs, that are known to be associated with malnutrition and deficiency of vitamins and micronutrients

# 4- Dietary Evaluation Methods

- 24 hours dietary recall
- Food frequency questionnaire
- Dietary history.
- Food diary or record

Name: \_\_\_\_\_  
Date: \_\_\_\_\_



Use the food diary to write down everything you have eaten this week.  
You could include some pictures.

	Breakfast	Lunch	Dinner	Snacks
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

My favourite meal was:	
My least favourite meal was:	

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THANKS