

PREVENTION OF MALNUTRITION

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Introduction

Malnutrition continues to be a major health problem in the world today, particularly in many developing and underdeveloped nations.

Protein Energy Malnutrition (PEM)

This is a state where the child's consumption level of protein and energy is insufficient to satisfy their nutritional needs. Due to the lack of protein and energy (calorie) the child is malnourished. Types of PEM are Kwashiorkor (protein deficiency malnutrition), Marasmus (deficiency in calorie intake) and Marasmic kwashiorkor (marked protein deficiency and calorie insufficiency).

General Management for PEM

- Provide 100-150 kilocalories/kg/day of expected weight
- Provide 3grams/kg of proteins calculated with reference to the actual weight
- Choice of food stuffs should be based on the local resources
- Feed small amounts of food at frequent intervals
- In case of lactose intolerance, lactose free milks, soya bean milk
- or a vegetable-protein mixture can be given
- Highly concentrated milk with mashed banana/cereal syrup makes best alternative for lactose free preparations(25% milk and 75% banana or cereals)
- Zinc supplementations improves dermatitis
- Diarrhea can be treated with oral potassium 5mEq/kg/day as potassium chloride solution
- Magnesium supplements can be given by natural sources like milk, groundnut, peas and grains
- Anemia should be treated
- Dehydration should be balanced with fluid and

electrolyte administration

- High calorie cereal milk can be given(100 ml milk, 1 teaspoon coconut oil, 1 teaspoon cereal powder e.g. rice flour)
- Hyderabad protein energy rich mixture can be prepared (roasted whole wheat 40gms, roasted Bengal gram 16gms, roasted groundnut 10gms, jiggery 20gms, gives 330 kcal and 11.3gms of protein)
- Prevent the child from hypoglycemia by 10% glucose immediately
- Prevent the child from hypothermia
- Provide parental teaching on breast feeding, weaning, immunization, prevention of infections and diarrhea, child spacing, personal and environmental hygiene, including food hygiene, utilization of locally available food for child's diet and need for supplementation of vitamins and minerals

Dietary management:

The dietary management for malnutrition includes

- Cereals like rice ,wheat , ragi , millet, jowar
- Pulses and legumes like Bengal gram, red gram and soya bean, green gram, horse gram
- Roots and tubers like sweet potato, tapioca
- Nuts and oilseeds like groundnut, gingelly seeds and coconut oil
- Milk and milk products, Fish, meat and chicken.

Prevention of malnutrition

Malnutrition in children can be prevented by

- Proper diet management for children
- Prevent from infection by Proper hygienic practices(food, personal and environmental)
- Regular weight and medical checkups

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- Improving the economic status
- Proper child spacing
- Educating the parents regarding food, hygiene, immunization, weaning etc
- Uplifting the women's health and remove their ignorance
- Utilizing the available food resources
- Providing love and tender care for the children at home.

To solve the problem of malnutrition in children we require the **BIGWIN** approach.

B – Exclusive Breast feeding for 6 months

I – Infection prevention and Immunization

G– Growth promotion or monitoring

W – Appropriate Weaning practice

I – Iron supplementation

N – Nutrition education and extra Nutrition during pregnancy and lactation and illness in child

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ANSWERS FOR QUIZ

- | | |
|------------------------------|---------------------------------|
| 1. Cytotrophoblast | 11. False pelvis |
| 2. 500 ml | 12. Mento vertical -13.5cm |
| 3. 60-90 seconds | 13. 2cm in diameter&2.5cm thick |
| 4. 36 weeks | 14. Anteversion and anteflexion |
| 5. 15 -20 cotyledons | 15. 12hrs |
| 6. 1000mg | 16. Wedge shaped |
| 7. Foramen ovale | 17. Parietal eminence |
| 8. Full dilatation of cervix | 18. Progesterone |
| 9. 16-18 weeks | 19. Amnion |
| 10. Suboccipitofrontal | 20. Effacement |