

BALANCED DIET



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NUTRITION

• DEFINITION

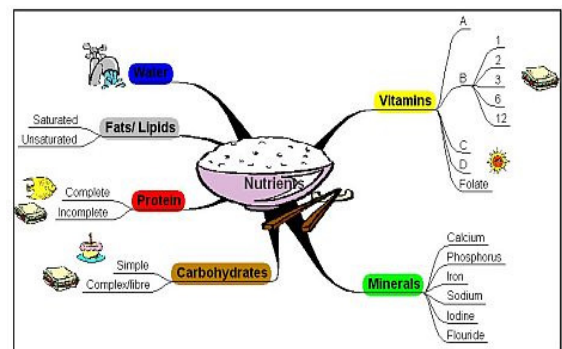
“Nutrition is defined as the scientific study of food and its relation to health.”



NUTRIENTS

- Nutrients are chemical component of food that supply nourishment to the body.

NUTRIENTS



BALANCED DIET



DEFINITION

A balanced diet is one which contains

- a variety of the food in such quantity and proportions that the need for energy, amino-acids, vitamins, minerals, fats, carbohydrate and other nutrients is adequately met for maintaining
- health, vitality and general well being and
- also makes a small provision for extra nutrients to withstand short duration of leanness .

2. A balanced diet is a diet which supplies all nutrient in adequate amount according to as individual age, sex, and physical activity it also provide appropriate amount of nutrients for growth development, wear and tear of body and small reserve for emergency



Well balance diet

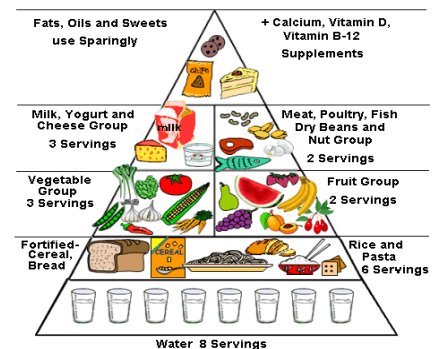
- It is also defined as a diet which contain different type of nutrients in such a quantities and proportion according to the age,sex,physical activities and physiological stress.
- Eg. During pregnancy, lactation, physical stress , growing age there is increase in need for well balanced diet.

Principles of balance diet

- 10 to15% PROTEIN of daily energy intake
- 15 to 30 % FAT of daily energy intake
- CARBOHYDRATE rich in fibre as remaining



Food pyramid



HEALTHY EATING

A HEALTHY DIET consists of a wide variety of foods to help your body grow and stay in good condition and to give you energy. It must include enough of these nutrients: proteins; fats; carbohydrates; vitamins; minerals;

and fibre; as well as water, to fuel and maintain your body's vital functions. Ideally, you should eat three to four meals a day and avoid snacks. If eaten, snacks should be low in simple sugars and high in carbohydrates.



CARBOHYDRATES
Carbohydrates are your body's major source of energy for growth, body maintenance, and activity.



FATS
Fats provide energy and also form a layer of fatty tissue beneath the skin to conserve your body's heat.



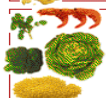
FIBRE
Fibre keeps your faeces soft and bulky, preventing constipation and some disorders of the intestine.



PROTEINS
Proteins help to build your body's cells and tissues and to produce certain hormones and other active chemicals.



VITAMINS
Vitamins regulate chemical processes that take place in your body, and help convert fats into energy.



MINERALS
Minerals help build your bones and control fluid balances, body responses, and gland secretions.

FACTOR WHICH AFFECT BALANCED DIET

- **Finances**
- The Food Standards Agency states that those living under low-income restrictions eat less fresh vegetables , which often cost more than less nutritious foods.
- **Eating Disorders**
- Eating disorders such as anorexia affect diet and eating habits,those who have eating disorders are at an increased risk of anemia, hair loss.

Cont..

- **Stress**

Stress causes a variety of behaviors in some, ranging from not eating to overeating. For some, stress causes upset stomach or intestinal disorders like diarrhea or constipation.

- **Medical Conditions**

Medical conditions both acute and chronic, along with treatments for such conditions, can cause eating disruption.

DIET

- **Disease Prevention**

Eating a balanced diet is the easiest way to protect yourself from many of the diseases associated with aging, including diabetes and heart disease.

- **Meeting Nutritional Needs**

Healthy **foods** contain vitamins and minerals that boost immunity and serve as natural protection from many common illnesses.

Cont..

- **Weight Control**

A balanced diet can also help maintain weight

- **Proper Sleep**

Eating heavy, oily foods can cause insomnia

- **Quality of Life**

Eating a balanced diet is important because it allows to enjoy life, have more energy, feel less stress.

Dietary Goals (Prudent Diet)

- ❖ Dietary fat should be limited to approximate 15-30 % of total daily intake.
- ❖ Saturated fats should contribute no more than 10% of the total energy intake; unsaturated vegetable oils should be substituted for the remaining fat requirement.
- ❖ Excessive consumption of refined carbohydrate should be avoided; some amount of carbohydrate rich in natural fibre should be taken.

Dietary Goals (Prudent Diet)

- ❖ Source rich in energy such as fats and alcohol should be restricted.
- ❖ Salt intake should be reduced to an average of not more than 5 gms per day; (Salt intake is more in tropical countries. In India it average 15 gms per day.)
- ❖ Protein should account for approximate 10-15 % of the daily intake.
- ❖ Junk foods such as colas, ketchups and other foods that supply empty calories should be reduced.

COMMUNITY NUTRITION PROGRAMMES

Nutritional Programmes in India

S. No.	Programme	Ministry
1.	Vitamin A prophylaxis programme	Ministry of Health & Family Welfare
2.	Prophylaxis against nutritional anaemia	Ministry of Health & Family Welfare
3.	Iodine deficiency disorder control programme	Ministry of Health & Family Welfare
4.	Special nutrition programme	Ministry of Social Welfare
5.	Balwadi nutrition programme	Ministry of Social Welfare
6.	ICDS programme	Ministry of Social Welfare
7.	Mid-day meal	Ministry of Education

ICDS

- Integrated Child Development Service (ICDS) Scheme.
- Launched on 2nd Oct. 1975.
- Current status- 12.36 lakh Anganwadi
- Budget allocation(2009-10)-
 - 6705 Crore for India
 - 646 Crore for Rajasthan
- Goal- Universalization of ICDS.

Anganwadi Workers

- Under the ICDS (Integrated Child Development services) Scheme, there is an anganwadi worker for the population of 1000.
- She undergoes training in various aspect of health, nutrition, and child development for 4 months.
- She is a part-time worker and is paid an honorarium of Rs. 1600 per month for the service rendered.

Beneficiaries of ICDS Scheme

- Children below the age of 6 years
- Pregnant and lactating women
- Women in the age group of 15-45 years
- Adolescent girls in selected area

Objectives of ICDS

- To improve the nutritional & Health status of 0-6 years children.
- Proper psychological development of child
- Reduce the incidence of morbidity, mortality, mal-nutrition and school dropouts.
- Inter-sectoral coordination
- Mother health & nutritional education.

Services at Anganwadi

- Normal Services
 - Nutrition
 - Education
 - Health Checkups
- Linkage with health services
- Awareness program support

Services at Anganwadi

- Health-
 - Immunization
 - Health checkups
 - Referral services
 - Treatment of mild illnesses

Services at Anganwadi

- Nutrition-
 - Supplementary nutrition
 - Growth monitoring & promotion
 - Nutrition and health education
- Early childhood care & Pre-school education to children of 3 to 6 years.

Services at Anganwadi

- Supporting services-
 - Safe drinking water
 - Environmental sanitation
 - Women's empowerment program
 - Non-formal education and adult literacy
- Referral services

Nutritional Supplement

S.No.	Recipient	Calories	Proteins (in gms)
1.	Child upto 6 years	300	8-10
2.	Adolescent girl	500	20-25
3.	Pregnant & Lactating woman	500	20-25
4.	Malnourished children	Double the daily supplement	

VITAMIN A PROPHYLAXIS PROGRAMME(1970)

- Programme launched by Ministry of H&FW in 1970 on the basis of technology developed at National Institute of Nutrition, Hyderabad.
- Component of National programme for control of blindness. 1968, 1976
- Single massive dose of oily preparation of Vitamin A containing 200000 IU orally to all preschool children in the community every 6 months through peripheral health workers.
- Consecutive doses at 9, 18, 24, 30, 36, 42, 48, 54 & 60 months.

PROPHYLAXIS AGAINST NUTRITIONAL ANAEMIA

- Launched by Govt. of India during 4th five year plan
- Distribution of iron and folic acid tablets to pregnant women and young children (1-12 years).
- MCH centres in urban, PHC in rural and ICDS project are engaged in the implementation of this programme.
- Iron fortification of Common Salt has also been developed at NIN, Hyderabad.

SCHEME FOR ADOLESCENT GIRLS (KISHORI SHAKTI YOJNA)

- A scheme for adolescent girls in ICDS was launched by the Department of Women and Child Development, Ministry of Human Resource Development in 1991.
- Targeted All adolescent girls in the age group of 11-18 years.
- Now as Balika Sambal Yozna in Rajasthan.
- Upma & Halwa premix are given fortnightly at AWC.
- One IFA tablet weekly.
- Health & hygiene education.

SCHEME FOR ADOLESCENT GIRLS (KISHORI SHAKTI YOJNA)

common services

1. Watch over menarche,
2. Immunization,
3. General health check-ups once in every six-months,
4. Training for minor ailments,
5. De-worming,
6. Prophylactic measures against anemia, goiter, vitamin deficiency, etc., and
7. Referral to PHC. District hospital in case of acute need.

IODINE DEFICIENCY DISORDER PROGRAMME

- Launched in 1962
- Focuses on
- Use of Iodised Salt – Replace of common salt with iodised salt, Cheapest method to control IDD
- Use of Iodized tablets – iodine tablets administered to school children (not widely accepted)
- Use of Iodized oil – 1ml Injection of Iodized oil to those suffering from IDD, Oral administration as prophylaxis in IDD severe areas
- Mass communication – Public awareness through mass media and public health programmes

MID-DAY MEAL PROGRAMME

- Also known as School lunch programme
- Programme in operation since 1961
- Objective
 - To attract more children for admission to schools and retain them so that educational performance of the pupils can improve.



Principles of Mid Day Meal programme

- The meal should be supplement and not a substitute to home diet.
- The meal should supply at least one third of the total energy requirement and half of the protein needed
- The cost of meal should be reasonably low.
- The Meal should be prepared easily in schools, no complicating cooking procedures involved
- Locally available foods should be used
- The menu should be frequently changed

Recommendations

Model Menu

- | | |
|------------------------|----------------|
| • Cereals | 75gm/day/child |
| • Pulses | 30 |
| • Oils and fats | 8 |
| • Leafy vegetables | 30 |
| • Non leafy vegetables | 30 |
- Minimum number of feeding days in a year should be 250 to have the desired impact on the children.

BALWADI NUTRITION PROGRAMME

Nutritional support to pre school children

- Started on 1970 Under the Department of Social welfare
- For children age group 3-6 years in rural areas
- Programme implemented through Balwadis
- Food supplement
 - 300kcal and 10grams of protein per child per day
- Now phase out as universalized ICDS



NATIONAL PROGRAMME FOR NUTRITION SUPPORT TO PRIMARY EDUCATION (Mid – day meal scheme)

- This system was called provision of 'dry rations'.
- It was launched as centrally sponsored scheme on 15th Aug. 1995 and revised in 2004.
- Government of India will provide grains free of cost and the States will provide the costs of other ingredients, salaries and infrastructure
- On November 28, 2001 the Supreme Court of India gave direction that made it mandatory for the state governments to provide cooked meals instead of 'dry rations'

Mid –day meal scheme

- Its objective being-
 - universalization of primary education by increasing enrolment, retention and attendance and
 - simultaneously impact on nutrition of students in primary classes.
- A cooked mid-day meal with minimum 300 Calories and 8-12 grammes of protein contents will be provided to all children in class I to V.

AKSHAYA PATRA AND PRIVATE SECTOR PARTICIPATION IN MID-DAY MEALS

- Successfully involved private sector participation in the programme
- The programme is managed with an ultra modern centralized kitchen that is run through a public/private partnership.
- Nandi Foundation in Rajasthan.
- Food is delivered to schools in sealed and heat retaining containers just before the lunch break every day

Suggestion for preparation of nutritious and economical mid-day meals

- Storage- avoid infestation
- Dalia or parboiled rice
- Single dish meal
- Cereal pulse 3:1 to 5:1
- Sprouted pulse
- Leafy veg- washed
- Soaking of rice & dal
- Fermentation
- Lid
- Overcooking/ reheating avoided
- Iodised salt