

NUTRITIONAL PROFILE OF PRINCIPAL FOODS

WHAT HAVE YOU LEARNT?

- What is nutrition?
- Importance of studying nutrition
- What are the various nutrients in foods?
- Classification of food

Classification of Foods

1. Classification by origin:

- a) Foods of animal origin
- b) Foods of vegetable origin

2. Classification by chemical composition:

- a) Proteins
- b) Fats
- c) Carbohydrates
- d) Vitamins
- e) Minerals

3. Classification by predominant function :

a) Body-building foods : Milk, meat, poultry, fish, eggs, pulses, groundnuts, etc.

b) Energy-giving foods : Cereals, sugars, roots and tubers, fats and oils.

c) Protective foods : Vegetables, fruits, milk

4. Classification by nutritive value / Groups :

- a) Cereals and millets
- b) Pulses (legumes)
- c) Vegetables
- d) Nuts ,oilseeds ,oils and fats
- d) Fruits
- e) Animal foods
- f) Roots and tubers
- g)Milk and milk products(dairy)
- h) Green leafy vegetables
- i)Condiments and spices
- j) Miscellaneous foods

Nutrients

Organic and inorganic complexes contained in food.

1. Macronutrients :

- Proteins ,fats and carbohydrates
- Proximate principles of diet.
- Because they form bulk of diet.

2. Micronutrients :

- Vitamins and minerals(macrominerals and microminerals or trace elements)
- They are required in small amounts.
- May vary from a fraction of a milligram to several grams.

WHAT SHALL WE LEARN NOW?

- Nutritive value of various foods that we eat
- Food guide pyramid
- Balanced diet
- Dietary diversification- concept of food groups
- Eat right India campaign
- National nutrition week and Nutrition month
- Poshan abhiyaan

CEREALS AND MILLETS

- Form the staple diet-Rice ,Wheat ,Maize ,Oats , Barley
- Millets-smaller grains- Jowar(sorghum), Bajra (pearl millet), Ragi /Nachani , Kodo millet
- Per 100 gm-350 cal,pro-6-12g,fat-2-5g,Vit B complex , minerals , lack Vit. A,D,C
- Limiting amino acid-lysine , threonine
- Supplementary action of proteins

CEREALS AND MILLETS

- Polished rice
- Parboiled rice
- Pellagra in maize eaters(niacin def.)
- Beri beri(thiamine def.)
- Maida
- Gluten
- Cooking practices

PULSES(LEGUMES)

- Rich in protein,poor man's meat(20-25%),350cal/100g,minerals,Vit.B(riboflavin and thiamine),lack Vit.A,D,C.
- Limiting amino acid-methionine, cysteine
- Anti nutritional factors-phytates and tannins
- High amount of oligosaccharides
- Germination,fermentation
- Soyabean

VEGETABLES

- Add variety, provide minerals vitamins and dietary fibre
- Roots and tubers
- Green leafy vegetables-iron Vit. A,C and B complex
- Other vegetables
- GYOR vegetables

FRUITS

- Eaten raw and fresh-provide vitamins , minerals , antioxidants
- Cellulose
- Seasonal fruits
- Dry fruits

FATS,OILS AND OILSEEDS,NUTS

- Rich source of energy and fat soluble vitamins
- Improve palatibility and increase gastric emptying time
- Vegetable fats-rich in essential fatty acids-PUFA
- Vanaspati (Dalda)
- Trans fat

ANIMAL FOODS

- Eggs-good quality protein , lacks carbohydrate and Vit.C
- Fish(calcium,omega-3,PUFA)
- Meat,chicken etc.
- 15-20% proteins of good quality

MILK AND MILK PRODUCTS

- Fine blend of nutrients needed for growth
- Good source of calcium , Vit. D,retinol,
- Deficient in iron and Vit. C
- 70 cal,3g proteins,3-8g fat,120mg calcium,4g lactose in 100 ml

SUGARS

- Sucrose
- Jaggery
- Honey-glucose and fructose
- Need to limit intake
- Caries in children

CONDIMENTS AND SPICES

- Enhance palatability
- Stimulate appetite
- Garlic-selenium
- Green chillies-beta-carotene
- Turmeric-iron...but also tannin

SALT

- 5g/day
- Salt restricted diets-0.5g-1g/day
- Iodized salt-potassium iodate(15 ppm)
- Double fortified salt

WATER

- 5-6 glasses/day in toddlers
- 8-10 glasses/day in older children

BEVERAGES

- Coffee , tea ,cocoa
- Soft drinks-aerated,juices
- Alcoholic beverages

Balanced Diet Cont'd

- **Remaining requirement** of energy will be from carbohydrates.
- Carbohydrates should be rich in natural fiber.
- Salt intake should be reduced to an average of not more than 5 g. per day.

Glycemic Index

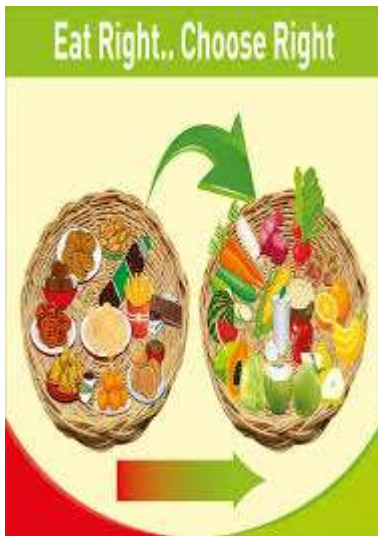
- Release of sugar in the intestine and its absorption.
- Foods with low GI should be preferred in diabetes .
- **Low GI:** 55 or less :Most fruits, whole grains, beans, pasta, lentils
- **Medium GI:** 56 to 69 : Sucrose , Brown Rice
- **High GI:** 70 Or more : Corn flex, White rice, white bread, candy bar, baked potato

FOOD GUIDE PYRAMID

Figure 1.1. Food pyramid for balanced diet for 2000 Kcal



EAT RIGHT INDIA



Balanced Diet

1. Which contains a **variety** of foods in such quantities and proportions
2. **Need** for energy, amino acids, vitamins, minerals, fats, carbohydrates, and other nutrients **is adequately met**
3. **For maintaining** health, vitality, and general well-being
4. Also **makes a small provision** for extra nutrients to withstand short duration of illness.

Principles for constructing Balanced Diet

- First and foremost , the daily requirement of protein **10 to 15 % of** daily energy intake.
- Fat requirement **15 to 30 %** of daily intake
- Saturated fats should **not be more than 10 %.**
- Unsaturated vegetable oils should be substituted for the remaining fat requirement.

MY PLATE FOR THE DAY



POSHAN ABHIYAAN

POSHAN Abhiyaan

PM's Overarching
Scheme for Holistic
Nourishment



सही पोषण – देश रोशन

NATIONAL NUTRITION WEEK AND MONTH

- 1st to 7th September every year
- Month of September every year

EAT RIGHT TO LIVE RIGHT

TAKE HOME MESSAGE

Thank you

