

# Role of a Balanced Diet in Maintaining a Healthy Lifestyle and Preventing Nutrient Deficiencies



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# What does food do?

- Provides energy .
- Fuel for muscles to move.
- Repairs injured tissue.
- Helps growth.
- Contributes to good general health.



- A balanced diet produces enough energy for the working muscles and recovery after exercise.
- It provides protein to build muscles and other nutrients to keep a person healthy.

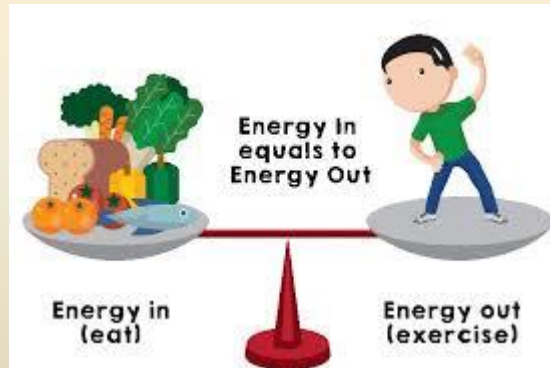
# BALANCED DIET

- A balanced diet means not eating too much of one thing.
- You choose your daily food intake across different food sources to allow a good a balance of different nutrients
- Eat a variety of food types so that we get all the nutrients that we need.
- Cereals, pulses, legumes, meats, vegetables, fibre, fruit, fats and sugars.



# BALANCED DIET

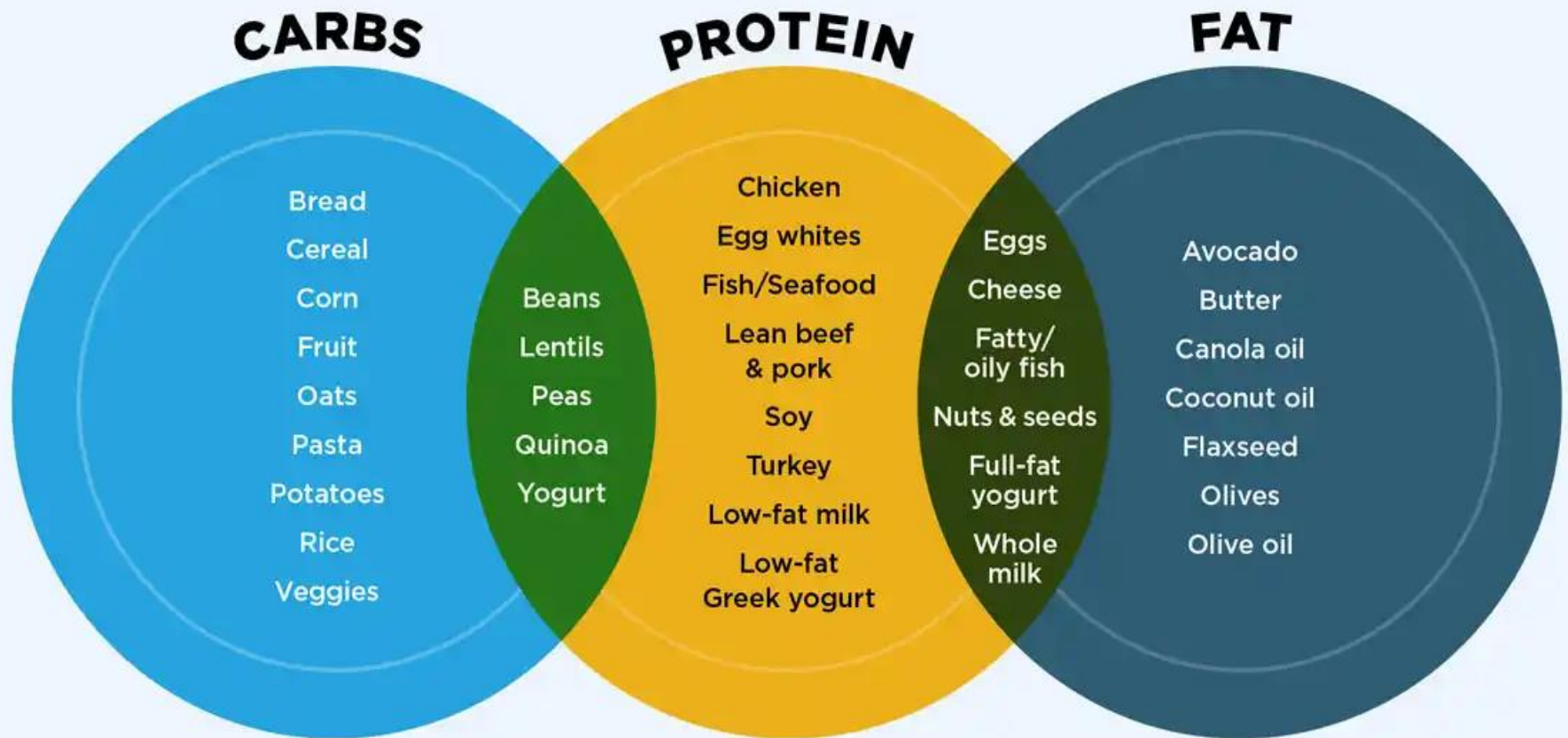
- Some people have allergies for example lactose intolerance or allergy to nuts.
- We need to make their diet suitable for them.
- Some religious beliefs restrict specific food types and those have to be considered too.
- It is necessary to balance the intake of energy to the output. Otherwise one can put on weight.



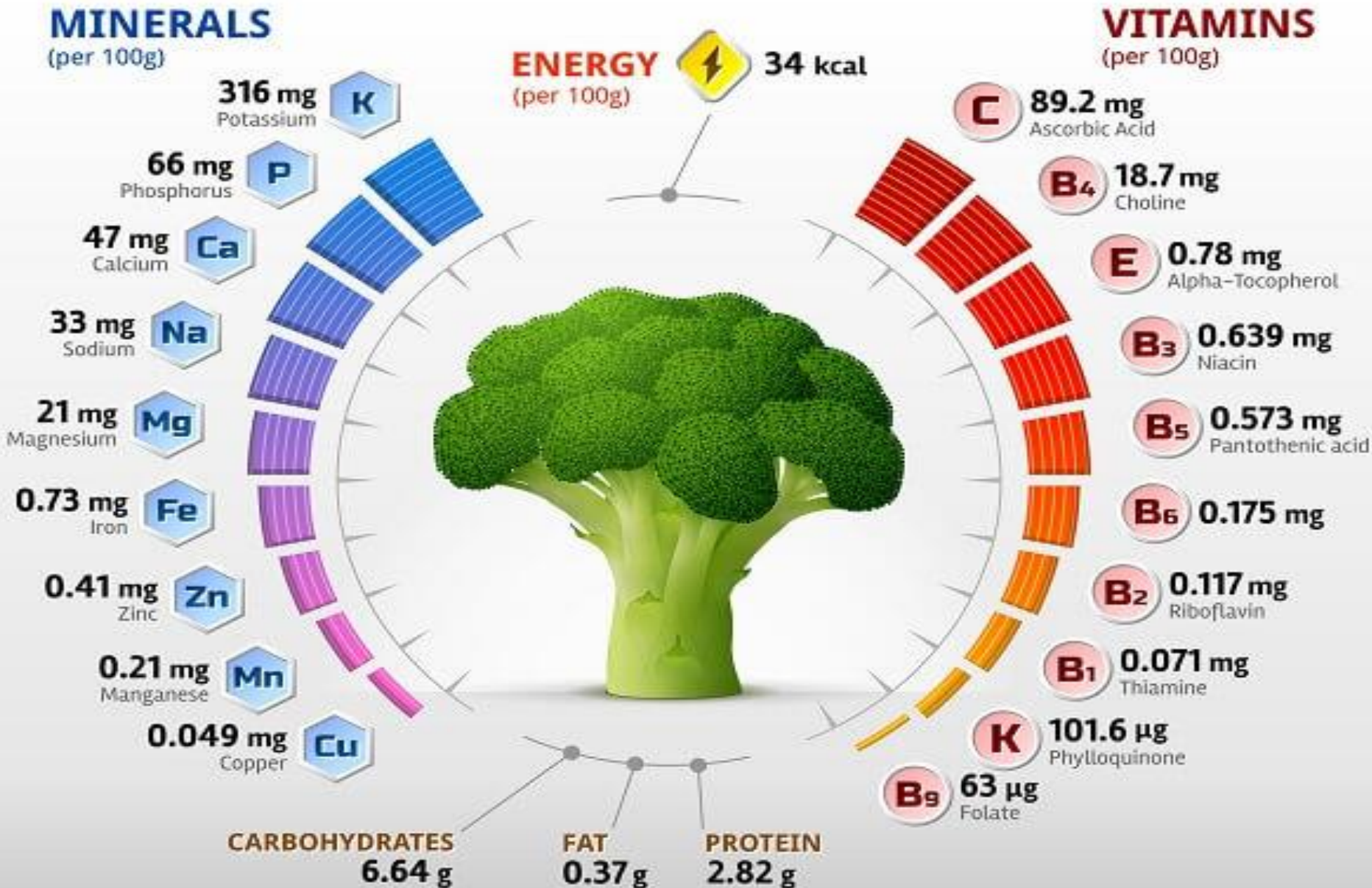
- People with active lifestyles burn more calories and they need to eat more to compensate.

# NUTRIENTS

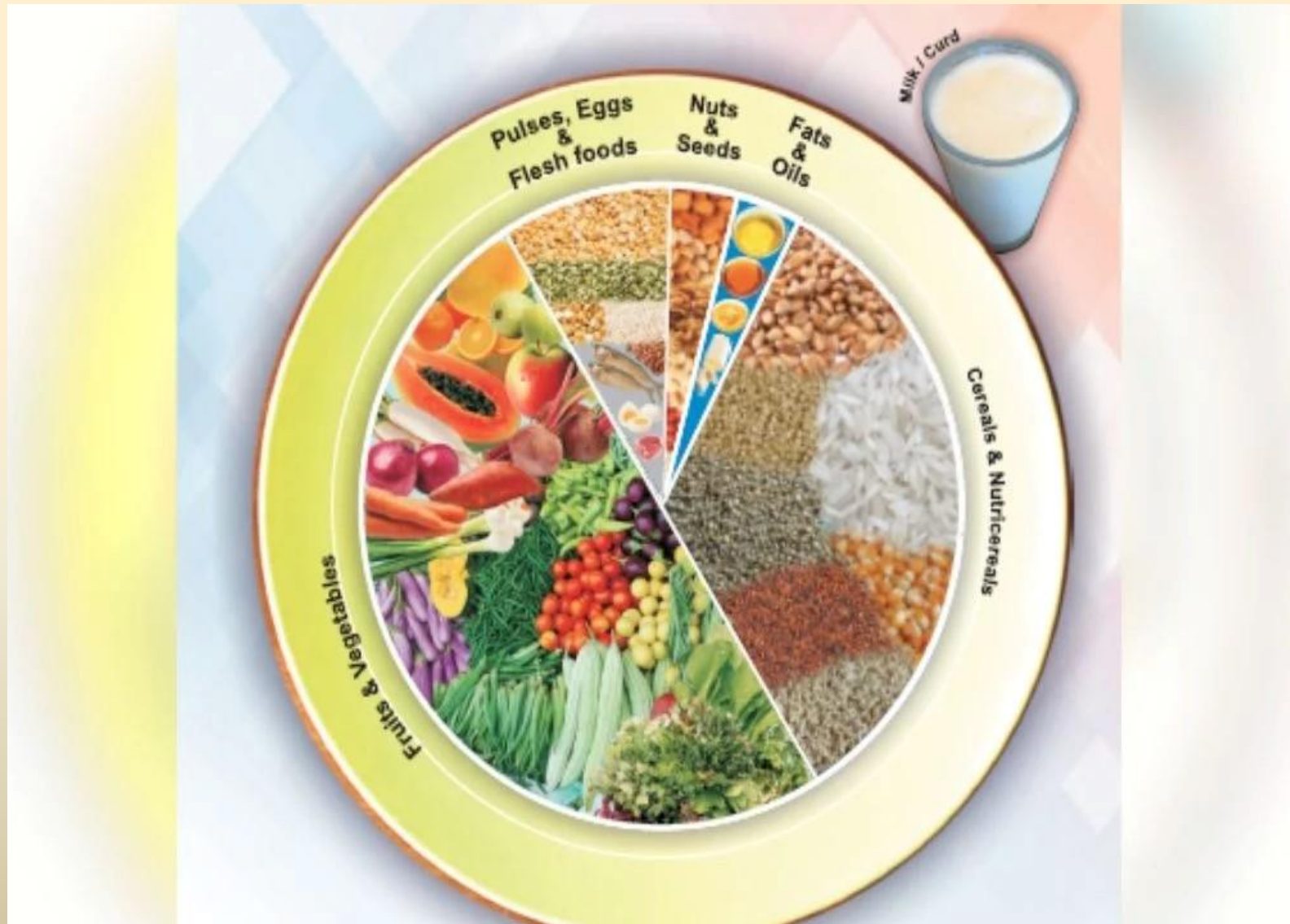
## MACRONUTRIENTS



# NUTRIENTS



# My Plate for the Day Promotes Health Prevents Hidden Hunger and Protects from Diseases



# My Plate

- Regular consumption of foods in proportions as per the model plate improves immunity and resistance to infections.
- It maintains good microbial flora (beneficial bacteria in the intestine)
- Prevents Diabetes Mellitus, Cardiovascular Diseases (CVDs) such as heart attack, stroke and many other diseases
- Maintains appropriate alkalinity and thereby reduces inflammation and decreases chances of kidney stone formation .
- Prevents insulin resistance and maintains appropriate insulin sensitivity and glycaemic index
- Ensures adequate intake of fibre and therefore prevents constipation
- Prevents adverse effects of environmental pollution and toxins such as heavy metals and pesticides by working as a detoxifying diet



# MY PLATE CONCEPT: the journey from RDA to EAR

- RDA (Recommended Dietary Allowances)
- EAR (Estimated Average Requirement)
- TUL (Tolerable Upper Limit)



# Macronutrients: Carbohydrates

- Energy-giving foods composed of sugars
- Common staple eaten regularly, accounting for up to 80% of the diet in developing countries
- Quickly absorbed by the body
- Sources
  - Cereals (e.g., millet, sorghum, maize, rice)
  - Root crops (e.g., cassava, potatoes)
  - Starchy fruits (e.g., bananas)

# Macronutrients: Fats and Oils (Lipids)

- Energy-giving foods
- Not produced by the body
- Absorbed more slowly than carbohydrates
- Account for small part of diet in developing countries
- Fats (solids): Butter, ghee, lard, margarine
- Oils (liquids): Corn oil, soybean oil, peanut oil

# Macronutrients: Proteins

- Body-building foods
- Form main structural components of cells
- Help produce and maintain tissues and muscles
- Sources
  - Plants (e.g., beans, nuts, chickpeas)
  - Animals (meat, poultry, fish, dairy products, insects)

# Micronutrients: Vitamins

- Organic compounds mostly from outside the body
- Do not provide energy
- Fat soluble: Dissolve in lipids, can be stored, not needed daily (e.g., vitamins A, D, E, K)
- Water soluble: Dissolve in water, absorbed into bloodstream immediately, needed daily
- Sources
  - Fruits
  - Dark leafy vegetables
  - Animal foods



# Micronutrients: Minerals

- Inorganic compounds not synthesized by the body
- Needed in very small quantities but possibly essential
- Important for biochemical processes and formation of cells and tissues
- Sources
  - Plants
  - animal product

# SOURCES OF ENERGY & NUTRIENTS







# INTERVENTIONS

Tackling deficiencies:

1. Identify the deficiency
2. Add a nutrient rich food or increase portion size for that.
3. Provide fresh food items
2. Promote and encourage kitchen gardens.
3. Provide fortified foods
4. Use nutrient supplements
5. Educate masses.
6. Promotion of exclusive breastfeeding and appropriate complementary infant feeding practices

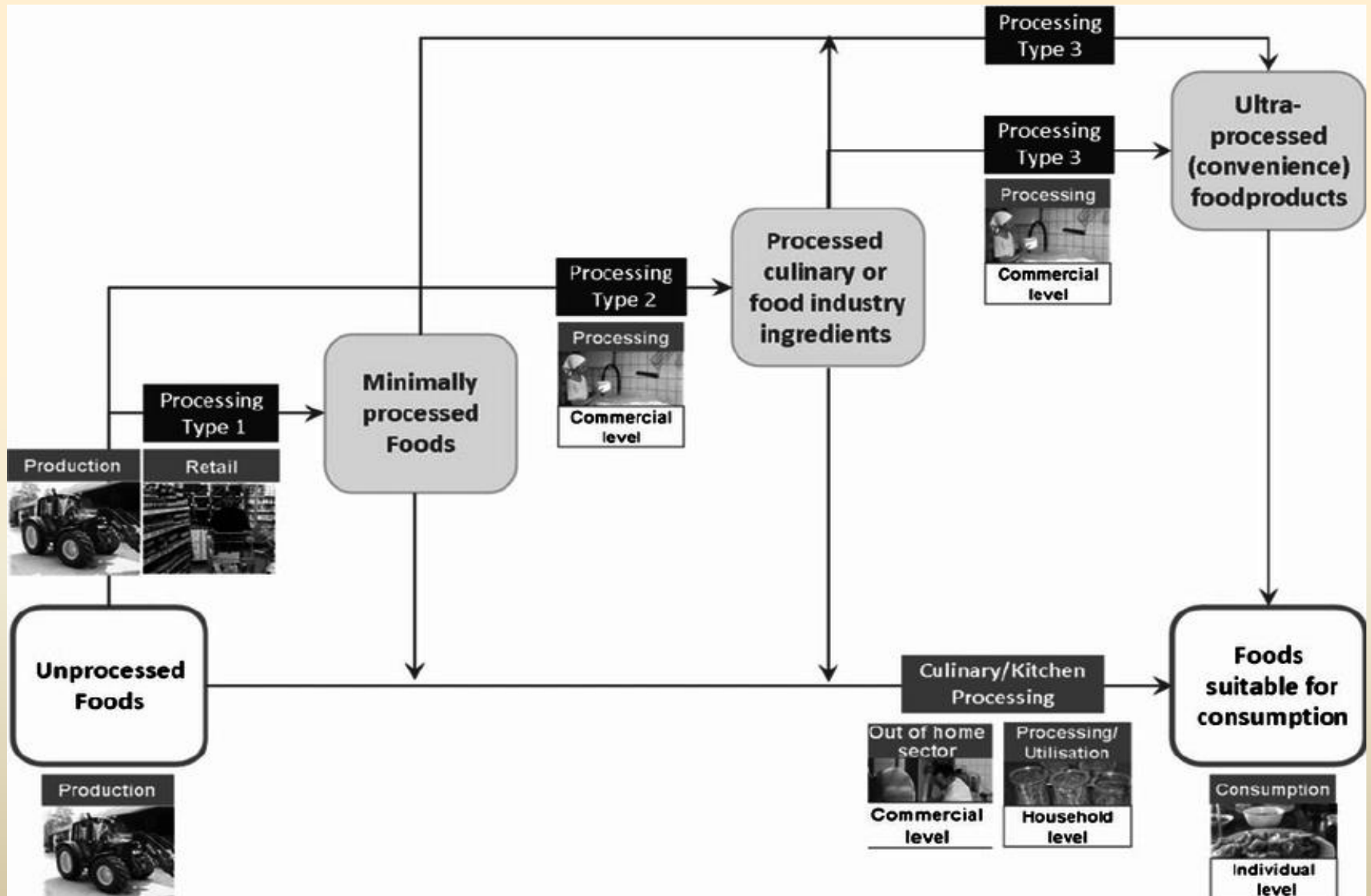
# HEALTH STATUS: Yesterday and Today



# ERA of Processed Foods



# Types of Processed Foods



# WHY PROCESS FOODS?

1. Extend Shelf Life
2. Maintain Sensory Properties
3. Maintain or Improve Nutritive Properties
4. Ensure Safety
5. More Convenient



# Dilemma

Processed food or no?



Should we eat processed foods?





why not?

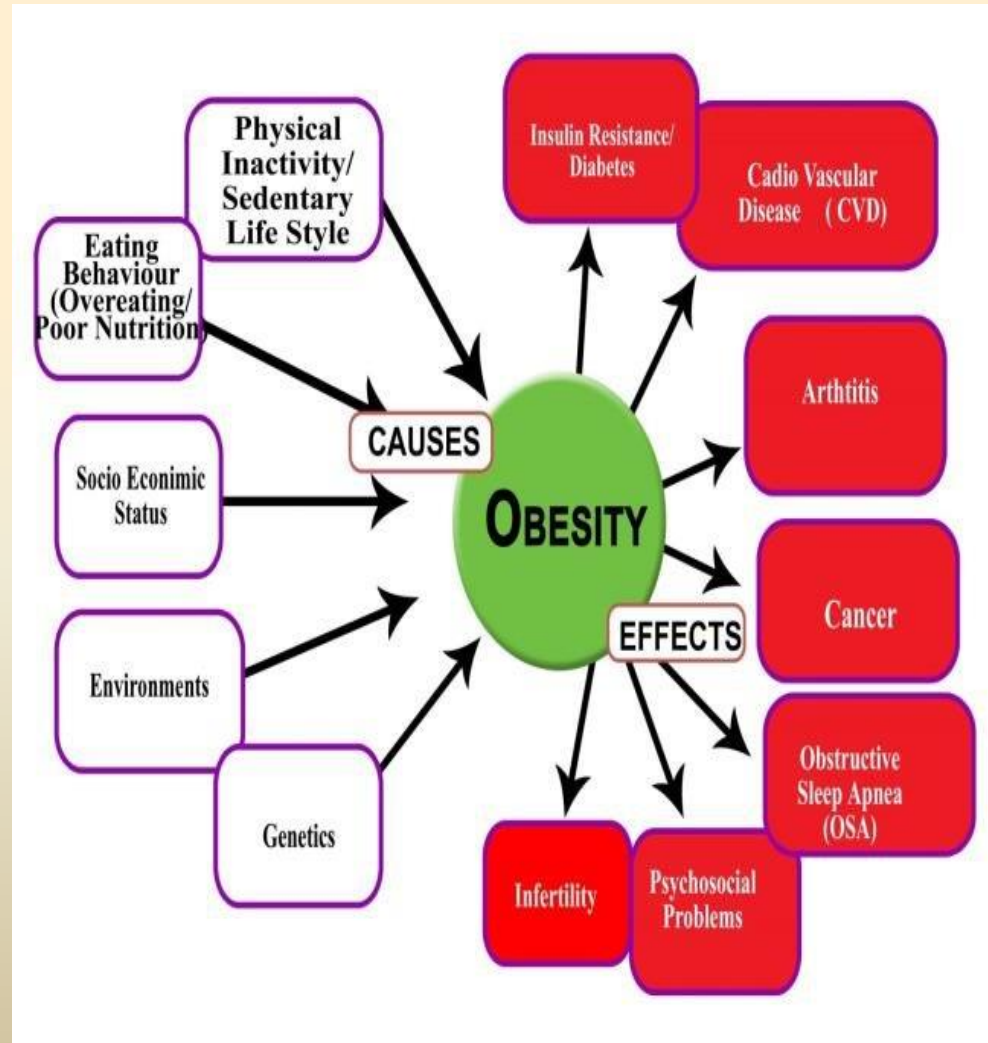




Be careful

# Caution

- Lack of physical activity. ...
- Unhealthy eating behaviors. ...
- Not getting enough good-quality sleep. ...
- High amounts of stress. ...
- Health conditions. ...
- Genetics. ...
- Medicines. ...
- Your environment.



# Lack of physical activity. ...

- Sedentary lifestyle
- Use of mobile phones
- Screen Time : TV watching/ OTT
- Online games/ Tab /Phone



# Unhealthy eating behaviors....

- Missing breakfast / missing meals
- Wrong timings of food
- Midnight snacks
- Large portion sizes
- No fresh foods only ultra processed foods

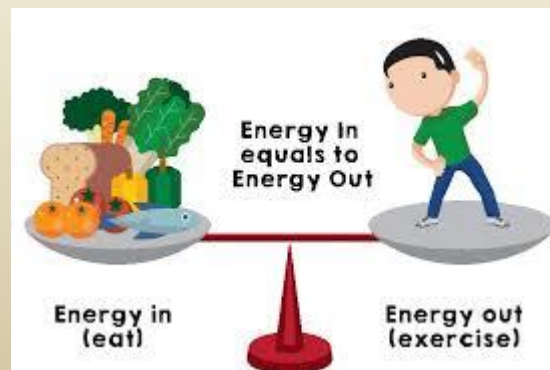


# Maintain normal weight and stay healthy

- Individuals trying to reduce weight may cut-down on cereal intake
- Balance meals with home cooked and ultra processed foods
- Follow **my plate concept**



- Balance energy



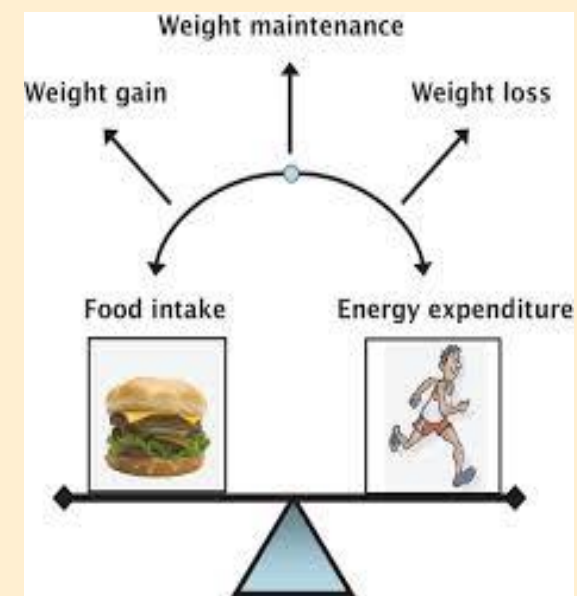
# Consciously increase physical activity



## Note:

- One may consume sugar, but it must be restricted to 25 to 30 grams per day. To adjust the total calories cereals must be reduced if sugar is taken.
- Eggs/fish/meat can substitute a portion of pulses
- Prescribed amount of vegetables( excluding potato) may be consumed either in cooked form/ salad
- Prefer fresh fruits and fruit juices. If sugar is added reduce calories from other foods.
- Use different varieties of cooking oils, vegetables, fruits, nuts etc., to obtain a variety of phytonutrients, vitamins, minerals and bioactive compounds

# Conclusion



- Good nutrition is essential for health and well-being.
- Daily well-balanced diets should be consumed.
- Inadequate nutrition can lead to deficiencies (anemia).
- Be moderately active. Give up sedentary lifestyle.
- Nutrition interventions include improved food fortification, vitamin and mineral supplementation and basic knowledge of nutrition.



thank  
you