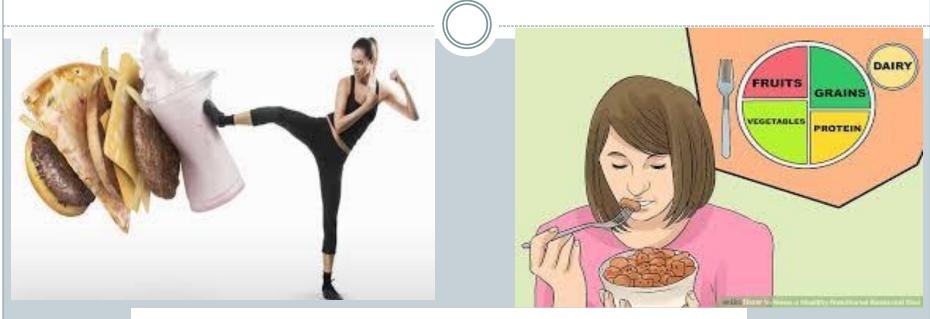


-DR. Sudha Tiwari Asst. Professor, GGPGC, Banda

#### **Basic Rules**





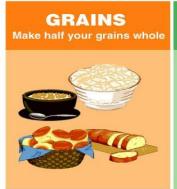


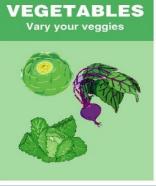
# A BALANCED DIET CONTAINS ALL THE FOOD TYPES IN THE RIGHT AMOUNTS TO STAY HEALTHY.



## MY PYRAMID PLAN

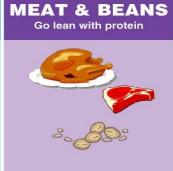












### **FOOD GROUPS**

# FOOD GROUPS TO INCLUDE IN PLATE IN THE RIGHT PROPORTIONS :-

- **\*CEREAL & GRAIN**
- **\*PULSES & LEGUMES**
- **\*MILK & MILK PRODUCTS**
- **\*VEGETABLES & FRUITS**
- **❖ MEAT, FISH & EGG**
- **\*FATS & OIL**



#### **Cereal & Pulses**

Wholegrain are the healthiest choices, usually contain more fibre, vitamins and minerals than refined versions.

This group can provides carbohydrate, fibre, B vitamins, iron, calcium and folate.

#### These includes-

Wheat, rice, oats, barley, millets, pasta, suji, brown rice,dal, rajma, chana, soyabean, dry beans and peas







#### Fruits & Vegetables



- Different fruit and vegetables contain: vitamin C, vitamin A, folate, fibre, potassium and magnesium & iron.
- High in fiber
- should make up approximately 1/3 of our daily food intake.
- Choose a rainbow of colors, especially dark green and deep orange
- Reduce stroke and cancer risk

#### Milk & Milk Products



- Good source of calcium; also contains protein, Calcium riboflavin, and vitamins A and D.
- Promotes strong bones and healthy teeth
- Vitamin D in milk helps to maintain proper levels of calcium and phosphorous
- Potassium maintain healthy blood pressure





# Meat & Egg



- A moderate amount of these foods is needed in the diet.
- choose low fat or lean meats, bake, broil or grill.
- Try to eat some food from this group every day and aim for at least two portions of fish a week,
- This group provides a range of nutrients including;
  - o protein, vitamin D, vitamin B12,
  - o zinc and omega-3 fatty acids.





# Fat & Sugar- Eat Little



Essential Fat are important as they:-

- Increasing energy and stamina;
- •Improving brain function;
- •Speeding up recovery and healing processes.
- Assisting in many body processes.

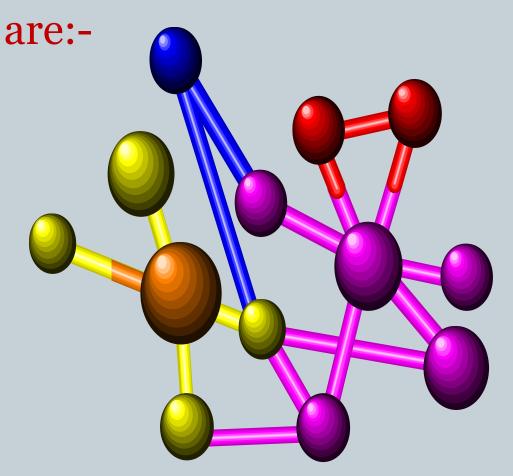
Sweet, desserts, cakes, pastries, biscuits, chocolate, crisps, fried foods and non-diet fizzy drinks should be considered as treats and only eaten occasionally.

Limit sugar-heavy beverages and fried products Choose water or fat free milk to drink.

# We need to eat a variety of foods because one food does not have all the nutrients

Essential nutrients are:-

- Carbohydrate
- Protein
- Fat
- Vitamin
- Mineral
- Water



# Carbohydrates

Carbohydrates are primary source of **ENERGY**.

Carbohydrates have 2 categories: Simple & complex

Simple carbs from sugar.

Complex carbs from starchy foods like grains, rice, and vegetables.

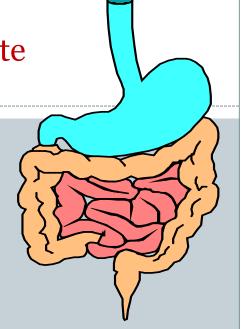






# FIBRE-Complex Carbohydrate

- Fiber is the plant material that doesn't break down when we digest food.
- Some complex carbohydrates contain fiber.
- Food Sources:
  - Oatmeal, fruits, vegetables, whole grains and legumes.
- Function in the Body:
  - Aids in digestion.
  - Reduce the risk of heart disease, diabetes and obesity and certain types of cancer.
  - Promote bowel regularity.



#### **Protein**

- Building blocks for the body for growth and repair.
- Our skin, hair, blood, muscles and vital organs are made of proteins.
- Protein sources: Plant (incomplete) & Animal (complete)
- Plant sources: Beans, Soy, Lentils
- Animals sources: Beef, Pork, Fish, Eggs, Cheese, Poultry



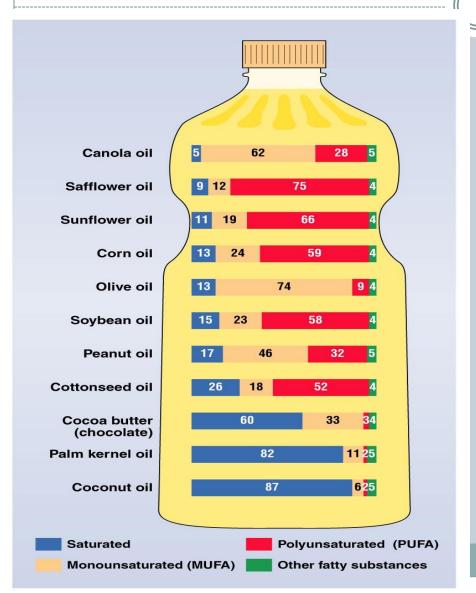


#### Fats & Oils



- Insulate our body
- Cushion our organs from shock
- Transport vitamins A,D,E,K vitamins
- Give taste and flavor to food
- Types of fat include: saturated, unsaturated, trans-fat and cholesterol.
- Omega's are good fats
- Cholesterol-fat-like substance in found in body cells. When high, it clogs arteries.

## SA, MUFA, PUFA



**Saturated** mainly from animal sources, solid at room temperature

**Unsaturated** generally come from plants and usually liquid at room temperature

Unsaturated fatty acid associated with a lower level of blood cholesterol and reduces the risk of heart disease.

*trans* fatty acids- in margarines, baked goods and restaurant deep-fried foods.

•Choose lean meat, fish, poultry, nonfat dairy products & Read food labels

#### Vitamin



There are two groups of vitamins:-

- fat-soluble vitamins, which can be stored in the body, e.g. vitamins A, D,E and K
- water-soluble vitamins, which cannot be stored in the body and therefore required daily, e.g. B vitamins and vitamin C.

# Vitamin B complex



- Different B vitamins has specific function in the body.
- These include:- Thiamin, Riboflavin, Niacin, pyridoxine, cyanocobalmine, folic acid.
- Vitamin B complex required to release energy from carbohydrate, protein and fat.
- Involved in normal function of the skin, mucous membranes and nervous system
- Sources are-
- Milk Eggs. Rice.
- Fortified breakfast cereals.
- Liver. Legumes. Mushrooms.
- Green vegetables.

# Vitamin B-sources

















#### Vitamin C



- Needed to make collagen, required for the structure and function of skin, cartilage and bones.
- It is an important nutrient for healing cuts and wounds
- Sources are- Citrus food- amla, lemon, orange, grapes, berries, apple

# **Water-Soluble Vitamins**

Nutrient	Functions	Sources
B-Complex	Helps wounds heal Helps fight infection Helps nervous tissue function healthy Plays important role in breakdown of proteins fats and carbohydrates	Oranges, grapefruits, tangerines, cantaloupe, broccoli, citrus fruits, tomatoes and raw cabbage
Vitamin C (ascorbic acid)	Keeps nervous system healthy Releases energy from food Helps promote healthy gums and tissues	Pork, whole grain breads and cereals

# **Fat-Soluble Vitamins**

Nutrient	Functions	Sources
Vitamin A	Keeps skin and mucus membranes healthy Prevents night blindness Promotes growth	Butter, dark green and yellow fruits and vegetables, egg yolk, liver, whole and fortified milk
Vitamin D	Builds strong bones and teeth	Egg yolk; fortified butter, margarine, and milk; the sun
Vitamin E	Acts as an antioxidant to protect cell membranes	Eggs, liver, salad oils, whole grain cereals
Vitamin K	Helps blood clot	Cauliflower, egg yolk, organ meats

#### Vitamin A



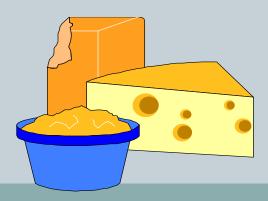
#### • Food Sources:

 Dark green, leafy vegetables, deep yellow and orange fruits and vegetables, liver, milk, cheese, and eggs.

#### Function in the Body:

- Helps keep skin and hair healthy.
- o Aids in night vision.
- Plays a role in developing strong bones and teeth.







#### Vitamin- E

- Acts as an antioxidant to protect cell membranes
- Sources are-

Eggs,

liver,

salad oils

whole grain cereals



# **Minerals**

Nutrient	Functions	Sources	
Calcium	Builds bones and teeth Helps muscles and nerves work	Milk, yogurt, cheese, salmon, dark veggies	
Iron	Combines with protein to make hemoglobin. Helps cells use oxygen	Liver, spinach, raisins and molasses	
Potassium	Helps nerves and muscles Balances body water	Potatoes, bananas, prune juice and tomato products	
Sodium	Helps nerves and muscle function	Salt, soy sauce, processed foods and country ham	
Iodine	Promotes normal functioning of the thyroid gland	Iodized salt and salt water fish	



#### **Mineral**



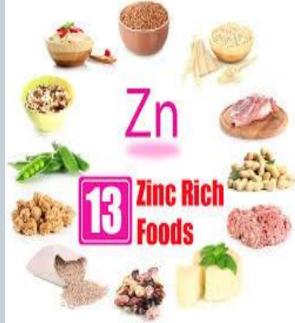
- Minerals are inorganic substances required by the body in small amounts for a variety of different functions.
- Calcium maintain bones and teeth, blood clotting and normal muscle function.
- Deficiency of calcium & phosphorus leads to osteoporosis.
- **Trace minerals** are Iron, zinc, manganese, copper, iodine needed in small amounts
- Iron is essential for the formation of haemoglobin in red blood cells, deficiency leads to anemia.

## Mineral-sources







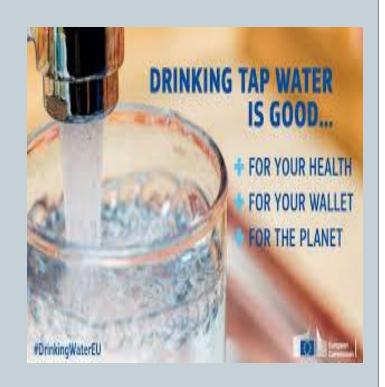






#### WATER

- The major component of blood
- 50-60% of body is water
- Necessary for
  - Electrolyte and pH balance
  - Transporting cells and O2



Recommended amount – 8 glasses/day (64 ounces)

# Reading Food Label



Start here	Nutrition Facts Serving Size 1 cup (228g) Servings Per Container 2  Amount Per Serving			
	Calories 250 Calories from	n Fat 110		
	% Daily	Value*		
	Total Fat 12g	18%		
	Saturated Fat 3g	15%		
Limit these nutrients	Trans Fat 1.5g			
nutrients	Cholesterol 30mg	10%		
	Sodium 470 mg	20%		
	Total Carbohydrate 31g	10%		
	Dietary Fiber 0g	0%		
	Sugars 5g			
	Protein 5g			
	Vitamin A	4%		
Get enough of	Vitamin C	2%		
these nutrients	Calcium	20%		
	Iron	4%		
* Percent Daily Values are based on a 2,000 calorie di Your Daily Values may be higher or lower depending your calorie needs:  Calories: 2,000 2,500				
to % DV:	Total Fat Less than 65g	<u>2,500</u> 80g		
• 5% or less is low • 20% or more is high	Cholesterol Less than 300mg Sodium Less than 2,400mg	25g 300mg 2,400mg 375g		
	,	30g		





## Junk food.





- Junk Food examples: Chips, chocolate, soft drinks, pizza, hot dog, burger, cake, cookies, chips, French fries......
- Too convenient
- Too tasty
- Available everywhere
- Heavily promoted
- High in salt, sugar, fat or calories and low nutrient content
- Offer little to no nutrition.



# What's the issue with junk food?









Eat this and feel good all day

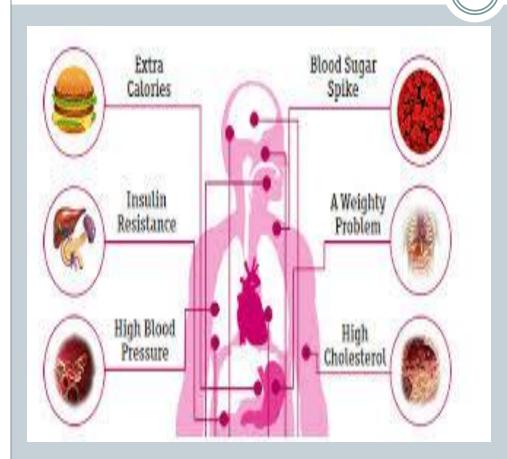


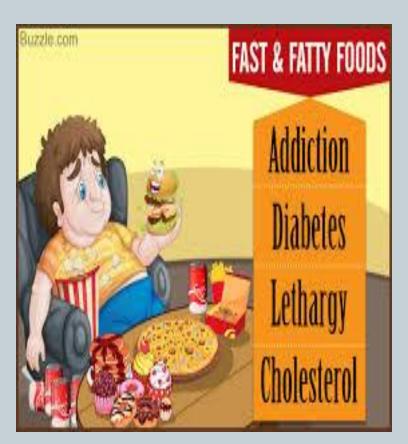


1000 kJ

1000 kJ

## **Harmful Effects**





obesity, tooth decay, heart disease, lack of concentration, fatigue, liver disease, vitamin deficiency

#### Focus!

- Focus on the 5 essential food groups for good health.
- Replace healthier foods in the diet
- Opt for water as your beverage of choice





# **Have Evergreen Heart!**

