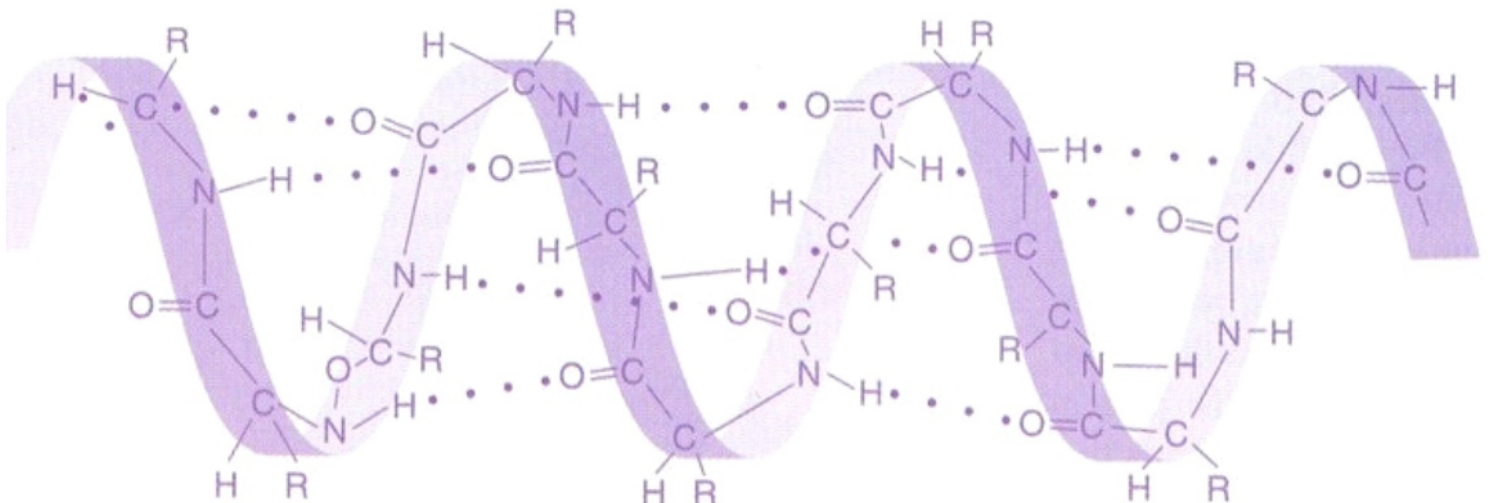




WHAT ARE PROTEINS ?

- Proteins Are The Building Blocks of Life.
- Every Cell in The Human Body Contains Protein.
- The Basic Structure of Protein is A Chain of Amino Acids.
- You Need Protein in Your Diet To Help Your Body Repair Cells, Make New Ones. These Includes Cells Which Confer Immunity.



- Researches Have Shown That Due To Consumption of High Calorie, High Fat And High Sugar Diets, Indian Population Has Low Muscle Mass Which in Turn Has Negative Impact on Metabolism And Greater Chances For Developing T2DM.
- The Possible Reason For This is That Traditional Meals Having Balanced Proteins, Carbohydrates And Fats Are Being Replaced By Imbalanced Meals Rich in Carbohydrates, Fats And Lack in Proteins.

SARCOPENIA IN INDIAN POPULATION

TYPES OF PROTEINS IN FOOD

- **COMPLETE PROTEIN** – Proteins In A Single Food Containing All 9 Essential Amino Acids In Concentrations Sufficient To Meet Effectively The Requirements Of Humans. Eg:

- Eggs
- Fish
- Chicken
- Mutton



TYPES OF PROTEINS IN FOOD

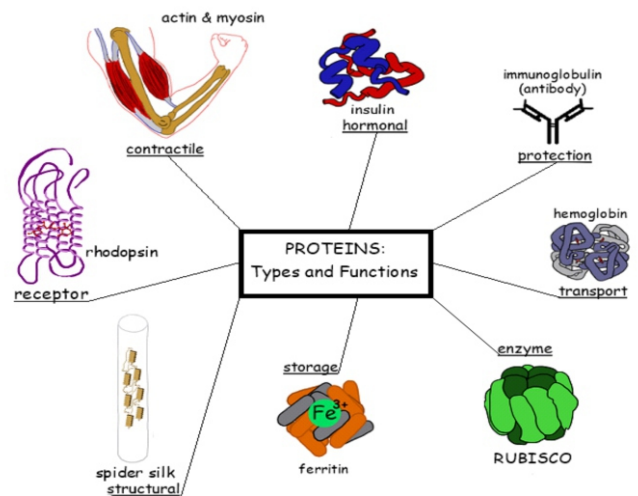
- **INCOMPLETE PROTEIN** – Proteins in A Single Food Which is Deficient In 1 or More of 9 Essential Amino Acids. Examples

- Pulses
- Beans
- Legumes
- Nuts And Oilseeds
- Soybean
- Cereals



PROTEINS IN IMMUNITY

- Proteins Are Essential For Growth Development, Immunity, Maintain Fluid And Electrolyte Balance, Synthesize Hormones, Enzymes And Maintain Muscle Mass.
- Protein is Vital To Build, Repair Body Tissues, Fight Viral And Bacterial Infections. Immune System Powerhouses Such As Antibodies And Immune System Cells Rely on Protein.



HEALTHY PROTEIN MEAL

BALANCED THALI

- Protein Rich Sources: Dal And Dahi (Curd)
- Carbohydrate Source: Roti, Vegetables
- **Fibre Source:** Vegetables, Dal And Roti



LOW PROTEIN THALI

- Protein Rich Source: None
- Carbohydrate Source: Roti
- **Fibre Source:** Vegetable And Roti

FOOD OPTIONS TO INCREASE PROTEIN IN DAILY DIETS

MEAL	VEGETARIAN CHOICES	NON VEGETARIAN CHOICES
Breakfast	Sprouts/Paneer Sandwich/Moong Dal Cheela/ Besan Cheela/Idli/dosa With Sambhar/ Khaman Milk	Eggs/Tuna Sandwich/Chicken Sandwich/Egg Roll/omelets/ Chicken And Roti
Lunch	Dals/Legumes/Sprouts/Dahi Kadhi/Curd/ Paneer/ Soya / Tofu	Fish/Chicken/Mutton/ Egg-Curry or Dry Preparation
Dinner	Dals/Legumes/Sprouts/ Dahi Kadhi/ Curd/ Paneer/ Soya / Tofu	Fish/ Chicken/ Mutton/Egg-Curry or Dry Preparation
Snack	Nuts Like Almonds, Walnuts, Pista, Peanut, Channa, Sattu	Egg Preparations

SPROUTING- INCREASES NUTRIENT LEVELS

Process

- When The Legumes Like(Mung, Matki, Chana, Rajma, Lobia And Soybeans) Are Soaked in Water For Several Hours And Then At Optimum Temperature And Moisture They Are Kept Aside To Grow, They Sprout.
- The Sprouting Process Increases Nutrient Levels, Making Sprouts Richer In Protein, Folate, Magnesium, Phosphorus, Manganese And Vitamins C And K Than Un-sprouted Legumes.



CONCLUSION

- Proteins Are Essential Components of Diet As They Regulate Important Functions of Body.
- Indian Diets Are Poor in Proteins.
- Balance Eating Should Include Protein. Ideally Proteins Should Be From Both The Sources Like Plant And Animal Sources.
- Sprouting of Pulses Improves Its Digestibility And Increases Bioavailability of Micronutrients in Them.
- Including A Source of Protein in Every Meal / Snack You Eat Will Help in Improvement of Physical Health, Metabolic Health And Boosts Immunity.



Issued in Public Interest by:

INDIAN DIETETIC ASSOCIATION