

1. What is daily meal plan?

	% of total calories	In gms (approx.)
Carbohydrates	60-65	300
Proteins	15-20	50
Fats	15-25	30

2. Why are carbohydrates needed?

Carbohydrates are cheapest and abundant source of energy. They are available as starch and sugars. Starch is a complex carbohydrates present in large quantities in cereals, potatoes and root vegetables. They are converted to simple sugars for utilization of energy.

3. What are different forms of sugars?

I. Monosaccharides :

- a. Glucose - Carrots, Oranges
- b. Fructose - All type of fruits, honey
- c. Galactose - On hydrolysis of lactose

II. Diasaccharides :

- a. Sucrose (table sugar) – Sugarcane, Beetroot
- b. Lactose (Milk sugar) – Animal / human milk
- c. Maltose (Malt sugar) – on hydrolysis of starch

III. Polysaccharides

- a. Starch – Cereals, root, pulses
- b. Dextrins – On hydrolysis of starch
- c. Glycogen – Liver & muscle
- d. Indigestible – Cellulose, pectin

4. What is the importance of Carbohydrates?

- ✧ Carbohydrate provide 4 calories / gm of energy
- ✧ Indian diet are cereal based and have high carbohydrate content (70%)
- ✧ Complex carbohydrates (cereals, etc) is preferred to simple sugars as they reduce risk of atherosclerosis and hyperlipedemia.

5. What is Glycemic Index (G.I.)?

Ability of food item to raise the blood sugar level is measured as glycemic index of that item.

6. Know these facts < particularly in diabetics >

- ✧ Simple carbohydrates (sucrose, glucose) have higher G.I.
- ✧ Lactose and Fructose have lower G.I. compared to glucose & maltose
- ✧ Rice and wheat have almost similar G.I. (70 Vs 72)
- ✧ Baked potato and white bread produce larger G.I. than white rice & Corn
- ✧ Blood glucose rise after consumption of rice is lower than that of potatoes
- ✧ Fruits like apple and orange has lower G.I. (40) than banana (70)
- ✧ Honey has higher G.I. (87)
- ✧ Milk products (milk, curds) have low G.I.
- ✧ Dried legumes, soya beans, peanuts, ground nuts, rajmah, lentils, kidney beans have lower G.I. and ideal for diabetics
- ✧ Root vegetables like potato, yam, beetroot have higher G.I.