

## DIABETES MELLITUS

Diabetes mellitus, commonly known as “Diabetes”, is a group of diseases characterized by high blood glucose concentrations resulting from defects in insulin secretion, insulin action, or both.

### SYMPTOMS

- Excessive urination
- Excessive thirst and excessive hunger
- Extreme fatigue
- Blurry vision
- Weight loss (Type 1 Diabetes)
- Tingling, pain, or numbness in the hands/feet (Type 2 Diabetes)

### NUTRITION IN DIABETES

Role of lifestyle in improving glucose control, lipid profiles, and blood pressure is of great importance. Some nutrition tips include:

- Eating foods that have fiber such as whole grains, fresh vegetables, fruits and legumes.
- Choosing low-fat sources of protein such as lean beef, mutton, chicken, fish, low-fat cheese, or vegetarian foods such as soy.
- Eating some healthy fats such as olive oil, canola oil, sunflower oil and nuts and limiting intake of high saturated fat foods like fried and baked goods. Some nuts and seeds, such as walnuts and flax seeds, are a good source of omega-3 fatty acids.
- Limiting salt intake.
- Avoiding all sugary beverages.
- Using low fat milk and low fat milk products.

### WATER AND FLUID INTAKE

The body tries to remove excess glucose in the form of urine; drinking water helps the body rehydrate. Remember the following points when consuming liquids:

- Water is the perfect drink for people with diabetes as it contains no carbohydrate or calories.
- Sugary drinks must be avoided. These include: regular or diet soda, fruit drinks (with or without added sugar) and energy drinks.
- Milk is a good source of calcium. The fat content in whole milk tends to raise blood glucose levels slightly less quickly than skimmed milk.
- Plain coffee and tea contain very few calories and carbohydrates and can be part of a healthy diet. Using a small amount or no additives at all will limit the impact on blood sugar.
- Unsweetened beverages like lemonade and coconut water can be used in moderation and with a check on sugar levels.

### PHYSICAL ACTIVITY

Physical activity helps with lowering sugar level in the body, improves insulin sensitivity, and helps with weight management and general well-being.

People with diabetes are advised to perform at least 150 min/week of moderate-intensity physical activity, or at least 90 min/week of vigorous exercise.

### EATING PATTERNS AND MEAL TIMINGS

Studies show that eating patterns and following meal timings can be helpful in managing diabetes. It acts as a guide which helps achieve the desired blood glucose level.

How is following meal patterns and timings helpful?

- It prevents blood sugar fluctuation: Eating every 4-5 hours is necessary to prevent low blood sugar for individuals taking medications to assist and maintain the target blood sugar level
- It helps maintain a healthy body weight: Stabilized blood sugar levels help regulate appetite and thus promote weight loss.



References:

- Krause's food & the nutrition care process, 14th edition  
<https://www.nutritioncaremanual.org>
- <http://www.diabetes.org>
- <https://www.diabetes.co.uk/>
- <https://foodandnutrition.org>

