

# National Nutrition Week 1 - 7 September, 2025

**“Eat Right for a Better Life”**

## Day 4

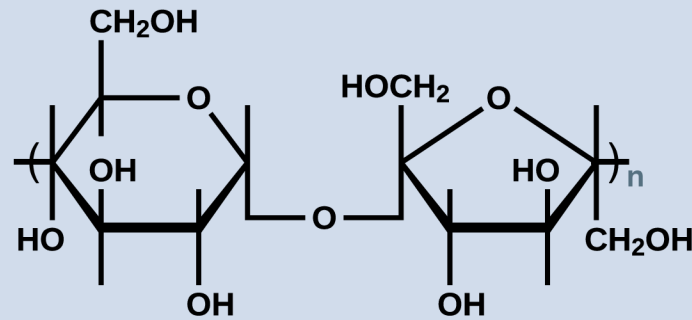
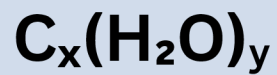
Nutrition Week in India is observed to raise awareness about the widespread prevalence of nutrient deficiencies.

This promotes education and actions toward improving nutritional status, preventing deficiency-related diseases, and ensuring a healthier future.

## Today's focus **Carbohydrates and Glycemic Index (GI)**

Carbohydrates are the body's primary source of energy which is broken into glucose, absorbed into the blood stream and impact blood sugar differently.

The glycemic index (GI) is a score that tells how quickly carbohydrate-containing foods raise blood glucose levels on a scale of 0 to 100.



## Major functions in the body

- ✓ Energy production
- ✓ Energy storage
- ✓ Protein sparing

## Types of Carbohydrates

1. **Sugars:** Simple carbs that are quickly absorbed into the bloodstream
2. **Starches:** Complex carbs made of many sugar units bonded together
3. **Fiber:** Indigestible carbs that aid digestion and regulate blood sugar

Ready-to-eat products often hide heaps of added sugar, turning them into quick sugar bombs for your blood!

But why sugar rush is bad?

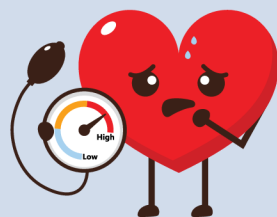
## Effects of overconsumption



Weight gain



Fatigue



High Cholesterol



Increased cravings



Bloating



Disturbed digestion



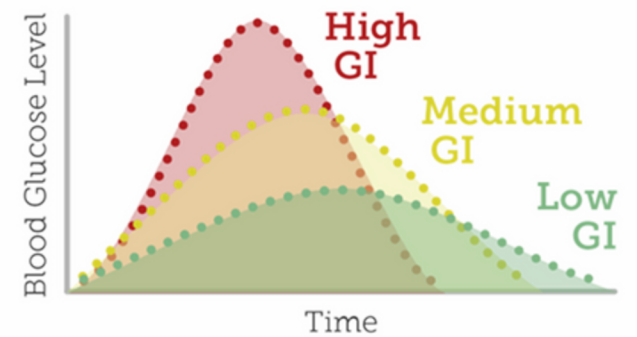
Skin issues



High blood sugar

## Glycemic Index Categories (GI)

- ✓ **High GI:** 70 or above - Quick sugar spikes, increased health risks
- ✓ **Medium GI:** 56-69 - Moderate blood sugar increase
- ✓ **Low GI:** 55 or less - Slow and steady energy, gradual blood sugar rise



## Effects of eating high GI foods

### Immediate effects

- ✓ Rapid rise and fall in energy levels
- ✓ Increased hunger and cravings within hours
- ✓ Higher insulin production

### Long-term effects

- ✓ Type 2 Diabetes Risk
- ✓ Cardiovascular Disease
- ✓ Weight Gain

## DID YOU KNOW?

Same food can have different GI  
based on method of Prep!

For example :

Baked potato : GI ~ 100

Boiled potato: GI ~ 82

Cold Boiled potato: GI ~ 56



## Prevalence of Diabetes



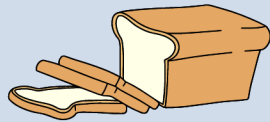
About 1 in 11 individuals is diabetic, and nearly 1 in 4 is predicted to be prediabetic.

## Sources

### High GI Foods (70-100)



White rice



White bread



Cakes



Cookies



Potato



Watermelon



Sweetened  
juices



Pineapple

### Mid and Low GI Foods (less than 70)



Brown rice



Legumes



Pasta



Dairy



Fruits & Vegetables



*High GI Doesn't Always Mean Unhealthy!*

Some fruits like watermelon and pineapple have a high GI but they're still packed with nutrients and great for your health.



## References

- ✓ Indian Council of Medical Research - National Institute of Nutrition. (2024). Dietary guidelines for Indians (24th ed.).
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- ✓ Pérez, M. C., & Goñi, I. (2022). The burden of carbohydrates in health and disease. *Nutrients*, 14(18), 3937.
- ✓ Sacks, F. M., Carey, V. J., Anderson, C. A. M., et al. (2014). Effects of high vs low glycemic index of dietary carbohydrate on cardiovascular disease risk factors and insulin sensitivity: The OmniCarb randomized clinical trial. *JAMA*, 312(23), 2531–2541.
- ✓ Soh, N. L., & Brand-Miller, J. (1999). The glycaemic index of potatoes: the effect of variety, cooking method and maturity. *European Journal of Clinical Nutrition*, 53(4), 249–254.