

## Diabetes in India

### Why in news?

Scientific evidence shows that diets heavy with ultra-processed food and beverages or high in sugar, fat, and salt are risky and can lead to diabetes.

### Status of diabetes in India

According to the study conducted by the *Madras Diabetes Research Foundation* in collaboration with the Indian Council of Medical Research and the Union Health Ministry,

- India is the infamous *diabetes capital of the world* accounting for one sixth of the world's population with considerable occurrence at younger age (45-64 years).

- It revealed that **11.4%** of India's population or **10.13 crore people** are living with diabetes.

- The study showed that 5.3% of the population or an additional 13.6 crore people are pre-diabetic.

- It also found that **28.6%** of the population would be considered to be *obese* as per the BMI measure.

Non-communicable diseases (NCDs)	National prevalence	Urban	Rural	Estimated number of people in India, in millions
Diabetes	11.4%	16.4%	8.9%	101
Prediabetes	15.3%	15.4%	15.2%	136
Hypertension	35.5%	40.7%	33%	315
Generalized Obesity	28.6%	39.6%	23.1%	254
Abdominal Obesity	39.5%	51.6%	33.5%	351
Hypercholesterolemia	24.0%	27.4%	22.3%	213

Prevalence of non-communicable diseases in India. (Source: ICMR)

### What is diabetes?

- Diabetes mellitus is a chronic metabolic disorder which is the most common pancreatic endocrine disorder (Non-Communicable Disease).
- **Characteristics-** It is caused due to insufficient, deficient or failure of *insulin secretion*.
  - **Hyperglycaemia-** Increase in blood sugar level
  - **Glycosuria-** Excretion of excess glucose in the urine
  - **Polyuria-** Frequent urination
  - **Polydipsia-** Increased thirst
  - **Polyphagia-** Increase in appetite

- **Types of Diabetes** - There are 3 main types of diabetes.
  - **Type 1 diabetes** is thought to be caused by an autoimmune reaction that stops your body from making insulin.
  - **Type 2 diabetes** is caused when your body does not use insulin well and can't keep blood sugar at normal levels.
  - **Gestational diabetes** is caused by the insulin-blocking hormones that are produced during pregnancy.

Factors	Type-1 (Insulin dependent diabetes)	Type-2 (Non-insulin dependent diabetes)
Prevalence	10-20%	80-90%
Age of onset	Juvenile onset (Less than 20 years)	Maturity onset (Greater than 30 years)
Body weight	Normal or underweight	Obese
Defect	Insulin deficiency due to destruction of $\beta$ -cells	Target cells do not respond to insulin
Treatment	Insulin administration is necessary	Can be controlled by diet, exercise and medicine.

### What is the relation between processed foods and diabetes?

- **Ultra processed foods**- According to the World Health Organization, consumption of unhealthy ultra-processed foods and beverages such as carbonated drinks, instant foods, Sugar-sweetened beverages, processed meat products, etc. cause diabetes.
  - A 10% increase in the consumption of ultra-processed food a day is associated with a 15% higher risk of type-2 diabetes among adults.
- **Obesity**- When food is ultra-processed, its structure is destroyed and cosmetic additives, colours, and flavours are added.
- This makes people eat more, gain weight, and heightens the risk of diabetes and other chronic diseases.
- **Complications**-Obesity and diabetes are key risk factors for heart disease and deaths.

### How India become a playground for the food industry?

- **Fall in sale in other countries**- It is reported that the sale of sugar-sweetened beverages has fallen in the last 20 years in many high-income countries.
- To compensate for the loss of sales, companies are now focusing on low- and middle-income countries such as India.
- **Marketing**- Billions of rupees are spent on marketing and advertising ultra-processed food and beverages, which leads to increased consumption by vulnerable populations.
- Celebrity endorsements also determine their consumption decisions.
- It targets younger generations and the growing middle class, making it hard for an individual to choose healthy food options.
- **Environment**- While the food industry blames people for bad choices, it is not the people but the environment around them that is to blame.
- **Women**- Women bear the silent burden of this illness as gestational diabetes is common among pregnant women where hormonal changes make the blood sugar levels oscillate.

- **Issues with the food industry-** They do not want any restrictions on marketing and they offer partnerships as well as arguments of economic development as 'stakeholders'.
- The food industry also participates in programmes such as 'Eat Right', making false promises.
- **Lack of regulation-** The Food Safety and Standards Authority of India (FSSAI) has allowed a dominating role to the food industry where front-of-package labelling is still not in place.

### What lies ahead?

- **Institutionalisation-** States like Tamil Nadu and Kerala have tasked Accredited Social Health Activists (ASHAs) and Anganwadi workers with door-to-door screening, doing glucometer checks, and counselling people.
- **Legal framework-** Regulatory policy on restricting the marketing of ultra-processed foods and providing warning labels on junk food and beverages is the need of the hour.
- **Awareness-** The people must be informed of the risk of consuming such food.

### Food Safety and Standards Authority of India (FSSAI)

- **Establishment** - It is a statutory body established under the *Food Safety and Standards Act, 2006*.
- **Ministry** - *Ministry of Health & Family Welfare*.
- **Headquarters** - *Delhi*
- **Function** - To regulate and monitor, manufacture, processing, distribution, sale and import of food while ensuring safe and wholesome food to the consumers.
- To protect and promote public health through the regulation and supervision of food safety.

### References

1. [The Hindu- Defusing the ticking bomb called diabetes](#)
2. [The Hindu- Silent burden for women](#)