



## Coping with Type-1 Diabetes

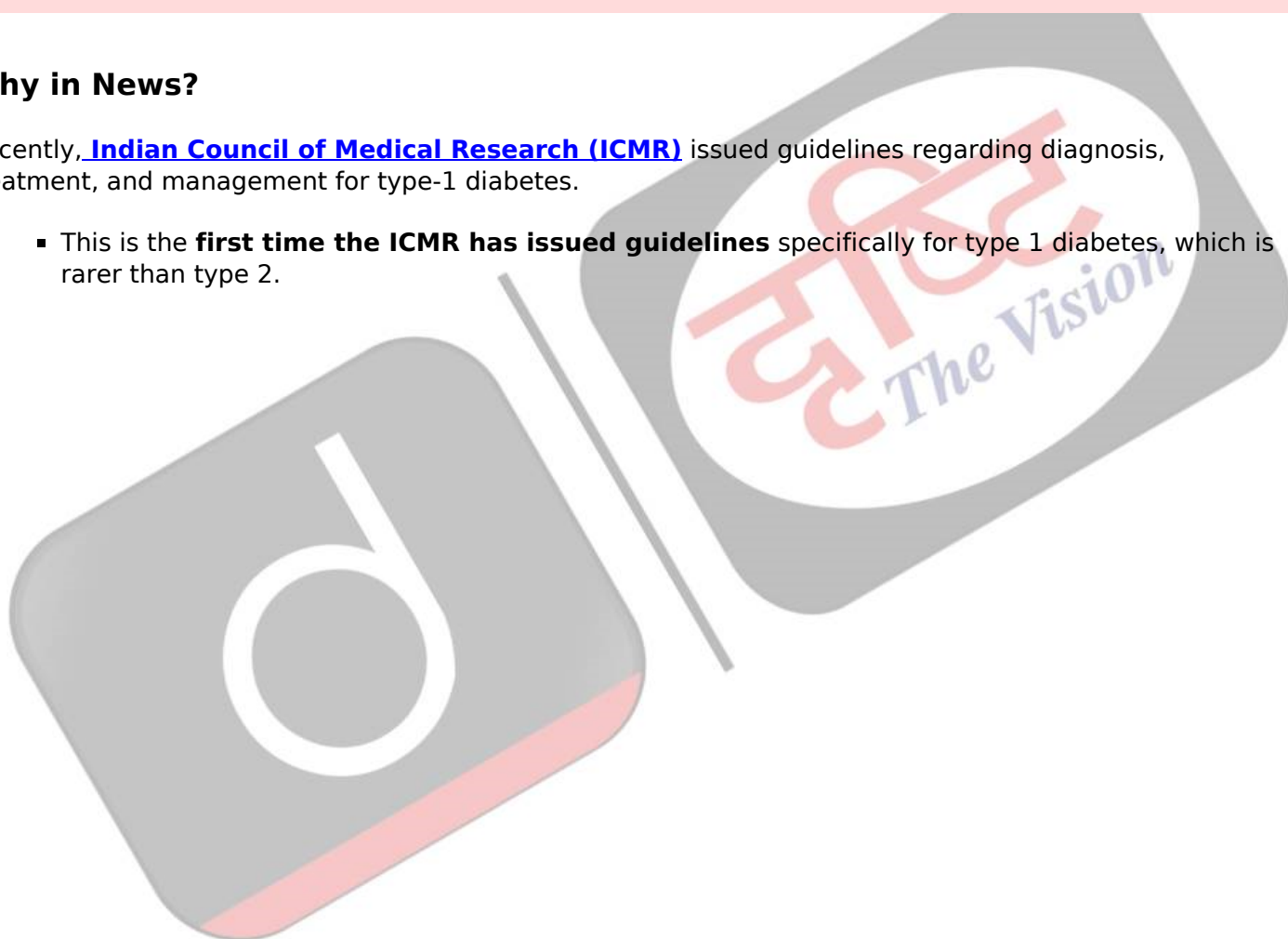
**For Prelims:** Type-1 Diabetes, ICMR, World Diabetes Day

**For Mains:** Diabetes, Healthcare, Initiatives to curb Diabetes, Government Policies & Interventions

### Why in News?

Recently, [Indian Council of Medical Research \(ICMR\)](#) issued guidelines regarding diagnosis, treatment, and management for type-1 diabetes.

- This is the **first time the ICMR has issued guidelines** specifically for type 1 diabetes, which is rarer than type 2.



# Diabetes: Type 1 vs. Type 2

Diabetes is on the climb — but there is a difference between Type 1 and Type 2. Do you know it?

## Type 1 Diabetes

## Type 2 Diabetes

Your body is no longer able to produce insulin	<b>Why</b>	Your body still produces insulin, but it doesn't make enough of it or it doesn't use it efficiently
Usually develops during childhood, but can develop at any age	<b>Age</b>	Can develop at any age but is most common in adults over 45
Family history	<b>Risk Factor</b>	- Overweight and/or inactive - Family history - High blood pressure
- Bedwetting - Blurry vision - Frequent urination - Increased appetite and thirst - Mood changes and irritability - Tiredness and weakness - Unexplained weight loss	<b>Symptoms</b>	- Increased appetite and thirst - Dark patches on armpits/neck - Frequent urination - Blurry vision - Tiredness and weakness - Unexplained weight loss
No known prevention methods	<b>Prevention</b>	Healthy lifestyle
Insulin injections	<b>Treatment</b>	Healthy living, possible insulin support

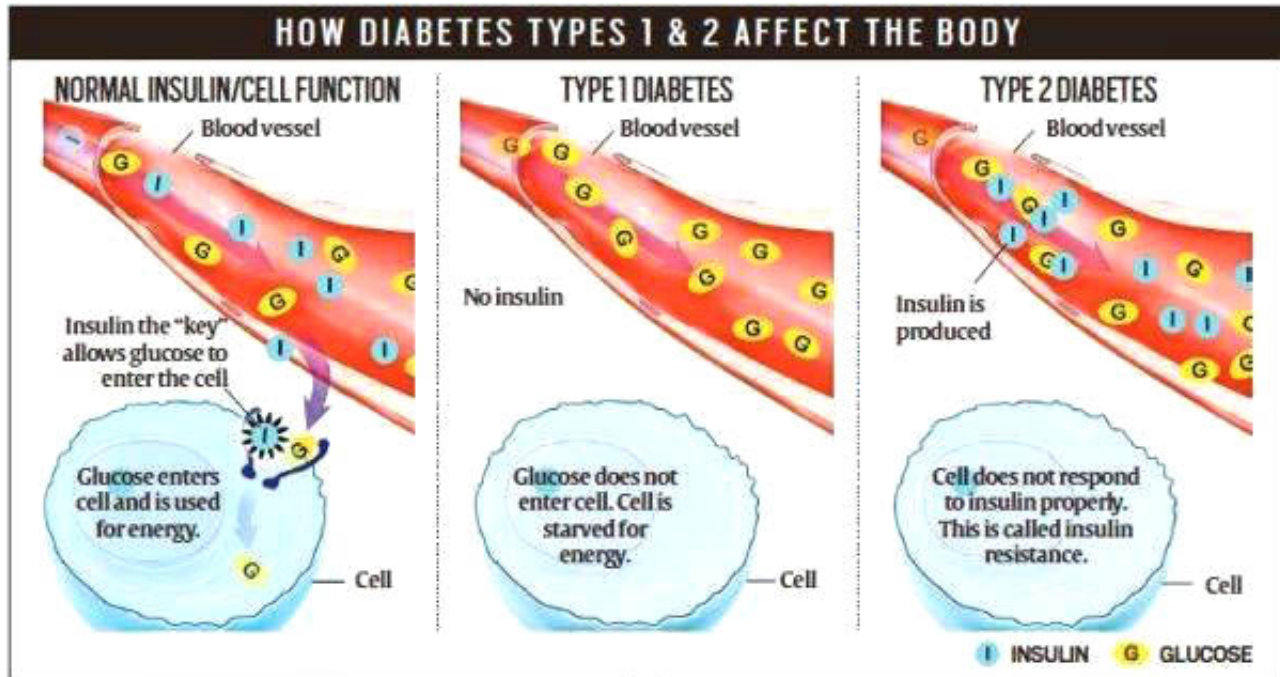
## What do we Need to know about Diabetes?

- **About:** Diabetes is a **Non-Communicable Disease (NCD)** that occurs either when the pancreas does not produce enough insulin (a hormone that regulates blood sugar, or glucose), or when the body cannot effectively use the insulin, it produces.
- **Types of Diabetes:**
  - **Type 1 Diabetes:**
    - It is also known as **juvenile diabetes** (as it mostly affects children of age 14-16 years), this type occurs when the body fails to produce sufficient insulin.
    - It is **predominantly diagnosed in children and adolescents**. Although the prevalence is less, it is much more severe than type 2.
  - **Type 2 Diabetes:**
    - It affects the **way the body uses insulin**. While the body still makes insulin.
    - Type 2 diabetes can **occur at any age, even during childhood**. However, this type of diabetes occurs most often in middle-aged and older people.
  - **Gestational Diabetes:** This type occurs in women during pregnancy when the body sometimes becomes less sensitive to insulin. Gestational diabetes does not occur in all women and usually resolves after giving birth.
- **Impacts of Diabetes:** It affects the **five major organs namely**, Kidney, Heart, Blood vessels, Nervous System, and Eyes (retina).

- **Factors Responsible:** Factors that lead to increase in diabetes are an unhealthy diet, lack of physical activity, harmful use of alcohol, overweight/obesity, tobacco use, etc.

## How Rare is Type-1 Diabetes?

- Out of **10 lakh children and adolescents living with type 1 diabetes** in the world, India holds the highest numbers.
- **Out of 2.5 lakh people living with type 1 diabetes in India**, 90,000 to 1 lakh are under the age of 14 years.
- **Only 2% of all hospital cases of diabetes in the country are type 1** — but which is being diagnosed more frequently.



## What Factors Exacerbate the Condition?

- **Genetic Factors:** It plays a role in determining whether a person will get type-1 diabetes. The risk of disease in a child is:
  - 3% when the mother has it
  - 5% when the father has it
  - 8% when a sibling has it.
- **Presence of Certain Genes:** It is also strongly associated with the disease. For example, the prevalence of genes called DR3-DQ2 and DR4-DQ8 is 30-40% in patients with type 1 diabetes as compared to 2.4% in the general population.
  - DR3- DQ2 and DR4-DQ8 means the patient is permissive for **celiac disease** and is capable of developing or having the disease.

## What are the Treatments?

- **Glucose monitoring:** Continuous glucose monitoring devices can help monitor the blood glucose levels throughout 24 hours with the help of a sensor.
- **Artificial pancreas:** It can automatically deliver insulin when required.

## What are Related Initiatives?

- **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS):**
  - In order to prevent and control major NCDs, this **initiative was launched by India in 2010** with focus on strengthening infrastructure, human resource development, health

promotion, early diagnosis, management and referral.

- **World Diabetes Day:**

- It is observed on **14<sup>th</sup> November every year**. The 2022 campaign will focus on access to diabetes education. access to diabetes education.

- **Global Diabetes Compact:**

- **WHO launched a Global Diabetes Compact** to better fight the disease while marking the centenary of the discovery of insulin.

**Source: IE**

PDF Refernece URL: <https://www.drishtiiias.com/printpdf/coping-with-type-1-diabetes>

