

Type 2 Diabetes

Published On: 30-07-2023

Why is in news? Union Minister Dr Jitendra Singh says, early detection is the key to control Type 2 Diabetes Mellitus and many other lifestyle disorders as well as to cure several Cancers including Breast Cancer

The Union Minister of State (Independent Charge) Science & Technology said that early detection is the key to control Type 2 Diabetes Mellitus and many other lifestyle disorders as well as to cure several Cancers including Breast Cancer.

The Minister said, with early diagnosis, and easy access to breakthrough treatments available in the country, India can conquer breast cancer in its early stages itself.

The Minister said CSIR labs under the Ministry of Science and Technology are in the forefront of India's cancer research efforts.

Moreover, the Central Drug Research Institute in Lucknow is leading the way in developing High Value Generic drugs through non-infringing and cost-effective synthetic route, designing and synthesising of New Chemical Entities against clinically validated cancer drug targets, preclinical evaluation of potent anti-cancer entities, among other activities.

In India, **37.2 percent women died from breast cancer in 2020**, as compared to the Asian rate of 34 per cent, while the global average was 30 per cent.

The **high mortality rates** with breast cancer in India could be **related to late diagnosis**, which is primarily **due to lack of proper awareness and the absence of screening** for the at-risk population.

Type 2 Diabetes:

Type 2 diabetes, formerly known as **adult-onset diabetes**, is a form of diabetes mellitus that is characterized **by high blood sugar, insulin resistance, and relative lack of insulin**.

Type 2 diabetes primarily occurs as a **result of obesity and lack of exercise**. Some people are genetically more at risk than others.

Type 2 diabetes makes up about 90% of cases of diabetes, with the other 10% due primarily to type 1 diabetes and gestational diabetes.

In **type 1 diabetes** there is a **lower total level of insulin** to control blood glucose, due to an autoimmune induced loss of insulin-producing beta cells in the pancreas.

Diagnosis of diabetes is by blood tests such as fasting plasma glucose, oral glucose tolerance test, or glycated hemoglobin (A1C).

Type 2 diabetes is **largely preventable** by staying a normal weight, exercising regularly, and eating a healthy diet (high in fruits and vegetables and low in sugar and saturated fats).

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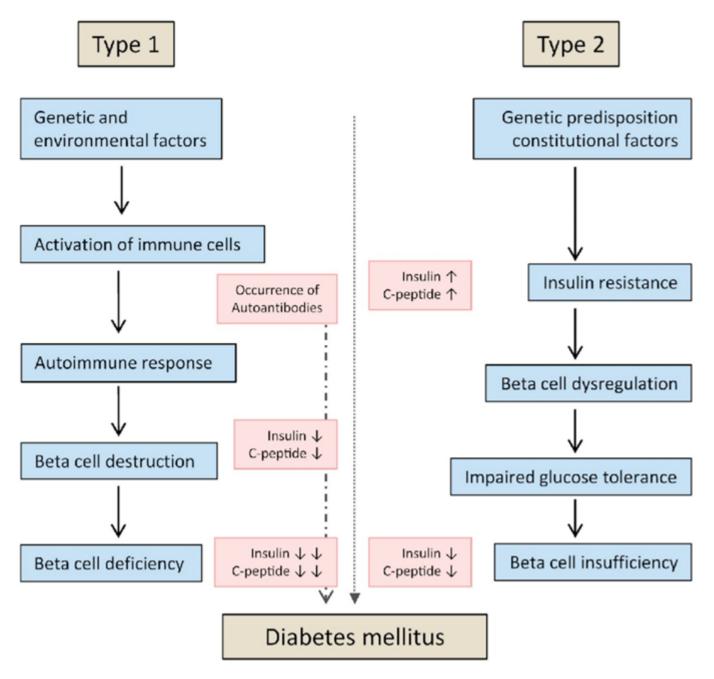
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Treatment involves **exercise and dietary changes**. If blood sugar levels are not adequately lowered, the medication metformin is typically recommended. Many people may eventually also require insulin injections.

Common symptoms include increased thirst, frequent urination, and unexplained weight loss. Symptoms may also include increased hunger, feeling tired, and sores (wounds) that do not heal.

Often symptoms come on slowly.

<u>Other complications</u>: Long-term complications from high blood sugar include heart disease, strokes, diabetic retinopathy which can result in blindness, kidney failure, and poor blood flow in the limbs which may lead to amputations. The sudden onset of hyperosmolar hyperglycemic state may occur; however, ketoacidosis is uncommon.



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