

AWARENESS ON DIABETES



a sedentary lifestyle. Exercise and diet can either reduce or delay the incidence of diabetes by over 50%.

Diabetes is a chronic disease marked by

high levels of sugar in the blood. In this, either the body does not produce enough insulin¹ or the cells do not respond to the insulin that is produced by the body. Diabetes is an important 'silent killer disease' as there is usually no early symptom of the disease. The commonest early symptom is feeling thirsty. The major cause of increase in the incidence of diabetes is

TYPES OF DIABETES

Type 1 Diabetes

It results from the body's failure to produce insulin, and presently requires the person to inject insulin. It is usually diagnosed in childhood. Many patients are diagnosed when they are older than age 20. It is also referred to as *insulin-dependent diabetes*.

Type 2 Diabetes

It results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency. It is far more common than type 1. It makes up most of diabetes cases. It usually occurs in adulthood, but young people are increasingly being diagnosed with this disease. It is also referred to as *non-insulin-dependent diabetes*.

Gestational Diabetes

It is high blood glucose that develops at any time during pregnancy in a woman who never had diabetes before. Women who have gestational diabetes are at high risk of type 2 diabetes and cardiovascular disease later in life.

By 2030, about 79.4 million Indian Population will have diabetes. The highest in the world.
- *Global Prevalence of Diabetes, WHO*

SYMPTOMS OF DIABETES

Symptoms may develop rapidly (weeks or months) in type 1 diabetes while in type 2 diabetes they usually develop much more slowly and may be subtle or absent. The common symptoms are:

>>Feeling tired or fatigued >>Increased hunger >>Unquenchable Thirst >>Frequent Urination
>>Losing weight without trying >>Having blurred eyesight >>Tingling or Numbness in Hands, Legs or Feet >>Slow-healing wounds >>Dry skin

CAUSES FOR DIABETES

● **Hereditary or Inherited Traits:**

It is strongly believed that due to some genes which pass from one generation to another, a person can inherit diabetes. People who belong to family background having history of diabetes are more prone to develop diabetes.

● **Diet:**

Human body in general needs a balanced diet to produce energy for performing vital functions. Too much of food, hampers the pancreas from performing its function of insulin secretion. Hence, with insufficient insulin secretion, the blood sugar level rises, leading to diabetes mellitus. So, the incidences of diabetes are increased in such persons.

● **Obesity and Fat Distribution:**

One of the major factor which causes diabetes is obesity. Excessive body weight as compared to the height of an individual, serves as a predisposing factor for diabetes. Due to increased fat in the body, the muscle and tissue cells become resistant to insulin, leading to high blood sugar level in blood (hyperglycemia) and finally diabetes.

● **Age:**

Increased age is the commonest factor for diabetes. The chance of diabetes is more in persons above 45 years. It is mainly because due to old age, a person becomes less active comparatively, tends to gain more weight, leading to pancreatic dysfunction.

● **Stress:**

Either physical injury or emotional disturbance is frequently blamed as the initial cause of diabetes. Irregular and chaotic life style also deeply influences the metabolism of the body. Even grief, anxiety, worry, death of any close person, etc. may alter the blood sugar level and lead to the disease.

● **Infection:**

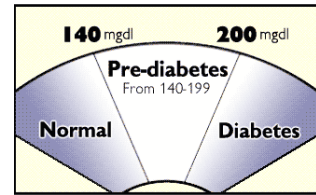
Certain infections infect the pancreas finally impairing the release of insulin and increased blood sugar levels.

*India is the **diabetes capital** of the world. Central obesity or **apple shape of the body and insulin resistance** is the main reason for diabetes increase in Indians.*

BLOOD SUGAR LEVEL

The **blood glucose level** is the amount of glucose (sugar) present in the blood.

- Normal Blood Sugar Value of a **Non-Diabetes**
 - Fasting : 60 to 100 mg%
 - 2 Hrs after food : 80 to 120 mg%
- Normal Blood Sugar value of a **Controlled Diabetes**
 - Fasting : 80 to 110 mg%
 - Post Prandial : 140 to 160 mg%
(2 Hrs after food with drugs)



Oral Glucose Tolerance Test

TYPES OF SUGAR TEST

Medicines to diabetics are given by Doctors based on the sugar level. There are two types of tests known to detect the sugar value.

Blood Sugar Test:



Uses:

- Blood Sugar test is more reliable as it distinguishes between low and normal blood glucose levels
- This test has been made easy through blood glucose meter. It can be done at home itself.

Issues:

- A bit painful as the finger is pricked.
- The time gaps are quite important to get the correct results.

Urine Sugar Test:

Uses:

- Urine glucose monitoring is not a substitute for blood glucose monitoring, rather it is an alternative that can provide very valuable information where blood glucose monitoring is not accessible, affordable, or desired
- It is significantly cheaper than blood glucose monitoring
- Urine testing is easy to perform. Just dip the test strip in the urine and read the result at the allocated time



Issues:

- It cannot distinguish between low and normal blood glucose levels
- The results are influenced by the volume and concentration of urine that is passed, which varies with the amount of fluid consumed and lost due to heavy sweating (or) vomiting
- This usually relies on interpreting a colour change to define the result. Subtle colour differences may be difficult to interpret
- The result is prone to error, If not read at the specified time after applying the urine to the test strip

HOMEOPATHIC TREATMENT

Homeopathy involves treating the individual with highly diluted substances, given mainly in tablet form. The aim is to trigger body's natural system of healing. The remedies are given according to the symptoms of diabetes. The results are best achieved in homeopathy by dietary control, regular active lifestyle and adopting the natural method with full belief. Below mentioned are few remedies to create awareness about the Homeopathic Treatment:

Syzygium Jambolanum is capable of reducing of sugar in the urine.

Aurum Metallicum given to those who have depression as a result of diabetes Or vice-versa, with high blood pressure. Also person having hidden suicidal tendencies, fear of crowd, hates his life.

Phosphoric Acid for person having diabetes as a result of suppressed grief, emotion, tension etc.,.

Uranium Nitricum works for person suffering ascites with general dropsy as a result of diabetes.

Insulinum improves the functioning of pancreas.



Homeopathy is safe but not to be consumed without the consultation of the Homeopathic Doctor. Only homeopath can select proper Homeopathic remedies for a person affected by diabetes as it differs from person to person. Homeopathic medicines usually do not have any side effects. Their ability to cause structural damage is Nil.

AYURVEDIC REMEDIES

The word 'Ayurveda' comes from the Sanskrit term: 'knowledge of life'. Ayurvedic remedy aims to maintain or restore the health of the body in a completely natural way thus ensuring the stability and vitality of the body and mind.

In Ayurveda, there are three ways to manage Diabetes. First one is Diet, second is lifestyle and third is Herbal Medicines. Exercise is another cornerstone of ayurvedic treatment for diabetes.

Herbs Used in the Ayurvedic Treatment of Diabetes:

1. Bael (Aegle Marmelos)

- The leaves of the bael have anti-diabetic properties
- The extract can be consumed, preferably with a pinch of black pepper in it

2. Bitter Gourd (Momordica Charantia)

- Well-known food for the treatment of diabetes. The seeds of the bitter gourd, have charantin, which helps in reducing the sugars in the blood
- Must be eaten in as much bitter form as possible (without sweetening) or without its properties lost

3. Fenugreek (Trigonella Foenum Graecum)

- Suppresses the secretion of sugar through the urine.

4. Jamun/ Indian plum (Syzygium Cumini)

- It has a specific action on the pancreas, which controls the conversion of starch to sugar.
- The seeds of the fruit have better effects than the pulp.

5. Garlic (*Allium Sativum*)

- Diabetes mellitus is a vata disorder, garlic is beneficial as it contains the best vata pacifying properties
- Garlic contains allicin, which works at reducing the sugar level in the blood. It also brings about the disintegration of cholesterol in the body.

6. Neem (*Azadirachtha Indica*)

- Known for its medicinally useful bitter leaves and other parts
- A paste of its leaves taken daily has excellent properties in reducing the sugar content of the blood

7. Turmeric (*Curcuma Longa*)

- Turmeric is another useful remedy for diabetes. It lowers the blood sugar and increases glucose metabolism

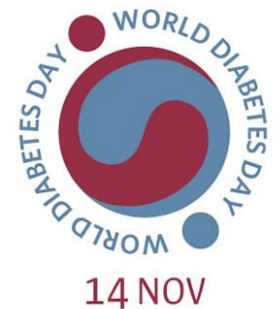
8. Amla (*Terminilia Offocinialis*)

- Amla is useful in new cell development.
- 1 teaspoon of amla powder and 1 teaspoon of turmeric powder taken in empty stomach in early morning controls diabetes without any insulin therapy.

9. Triphala

- Combination of Amla, Harde and Baheda is called triphala. It is useful when soaked overnight and taken in early morning for Diabetes

World Diabetes Day - November 14



GENERAL TIPS FOR THE DIABETES CURE

- The bitter gourd is considered as the best remedy for diabetes. Drinking at least one tablespoon of bitter gourd juice daily reduces blood sugar levels in blood and urine
- Having bitter gourd cooked in ghee brings down the diabetes by a significant amount
- A tablespoon of Indian gooseberry juice mixed with a cup of fresh bitter-gourd juice, taken daily for two months enables the pancreas to secrete insulin
- Drinking a glass of water with 10 Tulsi leaves, 10 Neem leaves and 10 Belpatras early morning on an empty stomach helps in keeping sugar levels under control
- Mix and grind seeds of Fenugreek (100 gm), Turmeric (50gm), and White Pepper. Take one teaspoon of this powder with a glass of milk twice daily
- Put one cup of water into a copper vessel at night, and drink the water in the morning

PREVENTION OF DIABETES

Diabetes can be prevented or controlled by some simple lifestyle modifications & weight loss.

☑ **Diet:**

The major cause of diabetes is increasing consumption of junk foods. A fiber-rich, low-fat and low-sugar diet can greatly help in preventing diabetes. The spices like turmeric, fenugreek and cinnamon can also be used to prevent diabetes. Regular intake of bitter gourd juice and Indian blackberry is an effective prevention remedy. Most importantly food with high glycemic² index should be avoided and the intake of beverages should be limited.

☑ **Meal Size:**

Large meals increase the fat deposit in the body. Instead of having three large meals a day, one can have six small meals at frequent intervals to enhance the metabolism and prevent diabetes. Also, having meals at fixed times and taking one's last meal for the day at least two hours before bedtime helps a great deal.

☑ **Weight Management:**

Obesity is one of the greatest catalysts in the onset of diabetes. Therefore, weight reduction can prevent insulin resistance and diabetes.

☑ **Exercise:**

At least 30 minutes of exercise everyday is vital for the prevention of diabetes. Regular yoga practice is effective in this case.

☑ **Supplements:**

Generally Omega 3 fatty acids help in the prevention of diabetes as it aids proper functioning of heart and also prevent insulin resistance.

☑ **Monitoring Health:**

A person needs to get a regular check up done, if only to determine if he has a genetic predisposition towards diabetes or is overweight. One's sugar levels, cholesterol levels and blood pressure readings need to be reviewed at regular intervals to understand what's going on inside one's body to prevent diabetes.



Note :

1. **Insulin** is a hormone that regulates carbohydrate and fat metabolism in the body.
2. **Glycemic Index** is a standardized system of ranking foods based on their effect on blood glucose levels over 2 - 3 hours. Foods that are digested and absorbed faster will have a higher glycemic index.

GOOD DIABETES CARE



Follow the **healthy eating plan** worked out by doctor (or) dietician.



Be active. Ask doctor for best suitable activities like walking, exercise etc.



Take **medicines as directed.**



Check blood glucose periodically and write the number in record book for reference.



Check feet every day for cuts, blisters, sores, swelling, redness, or sore toenails.



Control blood pressure and cholesterol.



Don't smoke / Don't drink Alcohol.

**"KNOWING IS NOT ENOUGH, WE MUST APPLY.
WILLING IS NOT ENOUGH, WE MUST DO."**

-- Johann von Goethe