HORMONAL DISORDERS

- DIABETES
- THYROID DISORDERS
- OBESITY IN ADULT
- PUBERTY DISORDER IN CHILDREN
- HIGH CHOLESTEROL & BLOOD PRESSURE DUE TO HORMONE DISORDERS
- DIABETES IN CHILDREN
- THYROID IN PREGNANCY
- PCOS & HIRSUTISM IN FEMALES
- RICKETS IN CHILDREN
- MENOPAUSE
- DIABETES IN PREGNANCY
- OBESITY IN CHILDREN
- GROWTH DISORDER IN CHILDREN
- OSTEOPOROSIS
- CUSHING SYNDROME

KD Endocrine & Diabetes Clinic

Emergency Helpline :

079-66770001 / +91 6359603656

E-mail : contact@kdhospital.co.in

Book an Appointment : 079 - 6677 0000

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Vaishno Devi Circle, S.G. Road, Ahmedabad - 382421

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KD Endocrine & Diabetes Clinic

Managing your DIABETES is not a science, IT IS AN ART

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WHAT IS DIABETES AND PRE DIABETES?

Prediabetes is a "**pre**-diagnosis" of **diabetes**—you can think of it as a warning sign. This condition arises when your blood glucose level (blood sugar level) is higher than normal but it's not high enough to be considered **diabetes**.

	NORMAL	PRE - DIABETES	DIABETES
FBS	<100	100-125	≥126
PPBS/OGTT (2 hrs Glucose)	<140	140-199	≥200
Hb A1C	<5.7%	5.7-6.4%	≥6.5%

WHAT IS OBESITY?

OVERWEIGHT AND OBESITY

The difference between being Overweight and Obesity is based on the Body Mass Index (BMI).

For Indians:

BMI < 23 = Normal

BMI 23-25 = Overweight

BMI > 25 = Obesity

Patient Details

PHOTO

- Patient's Name: _____
- Date of Birth: _____
- Height: _____ Weight: _____
- BMI: _____ Blood Group: _____
- Address: _____

_____

_____

_____

- Contact No: _____
- E-mail ID: _____
- Doctor's Detail: _____
- Doctor's E-mail: _____
- Known allergies: _____

_____

_____

- Important events: _____

EXAMINATION RECORD

"Diabetes Teaches You Discipline"

Date	BP	Weight	FBS	PPBS	HbA1c	Creatin ine	LDL-C	Other Remarks

EXAMINATION RECORD

"Diabetes Teaches You Discipline"

Date	BP	Weight	FBS	PPBS	HbA1c	Creatin ine	LDL-C	Other Remarks

HOME BLOOD GLUCOSE MONITORING

"Try your best to manage diabetes or be prepared to face the consequences later in life"

Date	Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Dinner	After Dinner	3 A.M.

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Date	Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Dinner	After Dinner	3 A.M.

DIET CHART

8:00AM	1 Cup tea/ Milk/ Coffee (Low Fat- Amul Taza or Cow Milk) + Sprouts/ Boiled Pulses..... Egg (White)/ Poha/ Upma (with onion, tomato, & vegetables)
11:00AM	1 fruit (150 Gms - Apple/ Orange/ Papaya/ Mosambi/ Watermelon) + 3 Walnuts
01:00PM	_____ Bowl Salad + _____ Green vegetable/s + ____ Bowl Dal + _____ Glass Buttermilk/ Curd + _____ Chapati (Without Ghee/ Butter)
04:00PM	1 Fruit + Dry Bhel (With lots of Onion, Tomato, & Chana) or 1 Khakhara or 1 Bowl veg. Soup/ Tomato Soup or _____ Egg (White)
07:00PM	_____ Bowl Salad + _____ Green vegetable/s + _____ Bowl Khichdi (With lots of onion, tomato, vegetable/s) + _____ Chapati + _____ Glass Butter Milk/ Curd
10:00PM	_____ Cup Milk (Low Fat - Amul Taza or Cow Milk) + 4 Almonds

STRICT "NO" IN DIABETES

Butter	**Sugar**	**Outside Food**
Ghee	**Parantha**	**Khari Toast**
Oil	**Naan**	**Bread**
Potato	**Kulcha**	**Pav**
Paneer	**Tandoori Roti**	**Biscuits**
Maida	**Bhakhri**	**Fruit Juices**
Rice	**Thepla**	**Soft Drinks**
Namkeen	**Fast Food**	**Coconut Chutney**
Farsan	**Junk Food**	**Bati**
Sweets	**Packaged Food**	**South Indian**
Icecream	**Chocolate**	**Pastry/Cake**

TYPE 1

DIAGNOSIS

Type 1 is often diagnosed in young children as the symptoms of diabetes should be apparent from a young age.

DEVELOPMENT

The immune system will destroy any new beta cells the body produces and so people with type 1 diabetes need to take insulin injections to compensate for the reduced ability of the pancreas.

TREATMENT

Treated with insulin injections or an insulin pump device which delivers insulin directly into the body through a wearable device.

PREVENTION & REVERSAL

Type 1 diabetes can't be prevented and it cannot be controlled without insulin.

TYPE 2

DIAGNOSIS

Type 2 is generally diagnosed in those over 40. Type 2 can be diagnosed in those younger than 40, but it is not as common.

DEVELOPMENT

The body becomes less able to respond to insulin and the body will try to compensate by producing more insulin but if the body cannot produce enough, high blood sugar levels will result.

TREATMENT

Treated initially with tablets and/or diet. As type 2 diabetes develops, insulin injections may be introduced.

PREVENTION & REVERSAL

It is possible for some people with type 2 to come off medication through lifestyle changes. However, this is not the case for all patients.

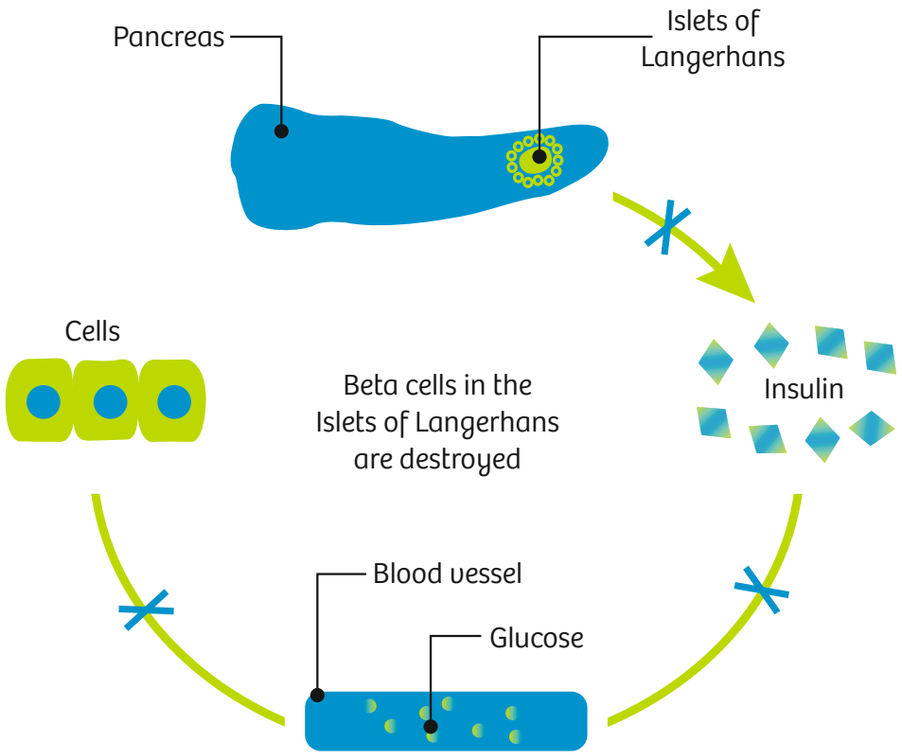
OTHER TYPES

Type 1 and type 2 are not the only forms of diabetes. There are other types:

- Prediabetes : early form of type 2 diabetes
- Gestational diabetes : a form of diabetes in pregnancy, similar to type 2
- LADA: a slower progressing form of type 1 diabetes that can develop in adults
- MODY : a form of diabetes caused by specific genetic mutations

Cause of Diabetes Mellitus (Type 1)

Beta cells present in the Islets tissue of Pancreas are responsible for the production of insulin which helps carry the sugar and glucose to the cells. In patients having Diabetes Mellitus Type 1, their body's immune system destroys these beta cells leading to no insulin production, thus causing the rise in the blood glucose and sugar levels.



Risk Factors For Type 2 Diabetes

- Family history of type 2 diabetes
- Asian Indians
- Overweight (BMI > 23kg/m^2)/ Abdominal Obesity
- Sedentary lifestyle
- H/O Gestational diabetes/PCOS
- Metabolic syndrome
- Presence of prediabetes

Symptoms Of Diabetes

Patient with mildly elevated sugar may not have any symptoms. Many patients are diagnosed incidentally on routine health check up during some illnesses (myocardial infection, stroke or urinary tract infection) or as a part of periodic routine health checkup. Hence, screening for diabetes is very important (especially if you are at risk of developing diabetes), irrespective of presence/absence of symptoms.

Usual Symptoms Of Diabetes

Complications of Diabetes

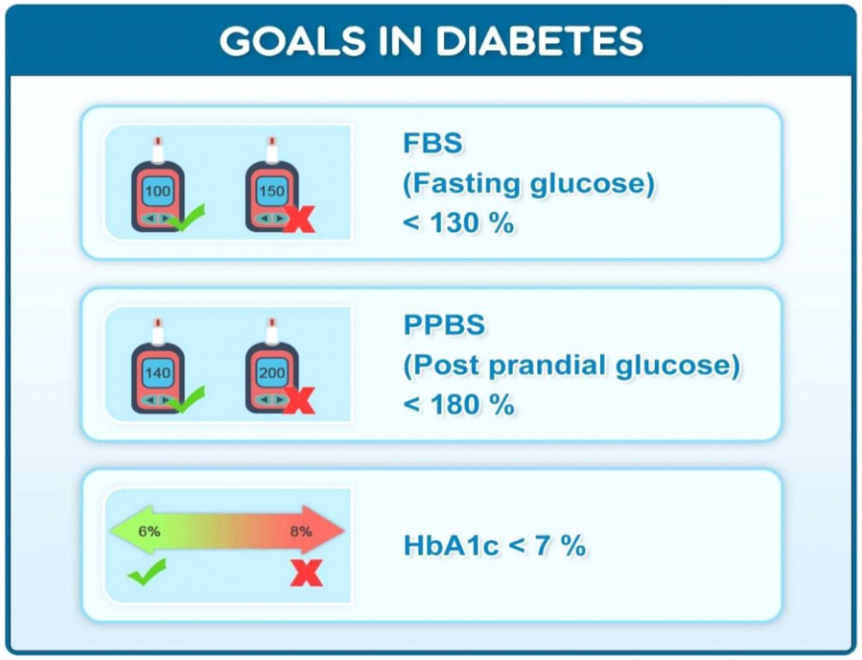
ACUTE (Immediate)

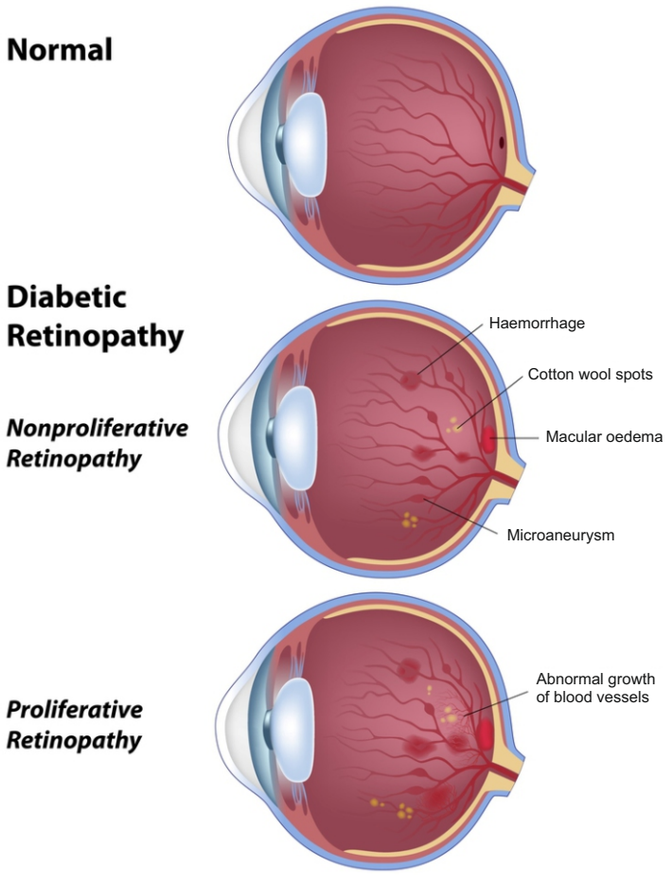
- Infections
- Weight loss
- Dehydration
- Ketoacidosis
- Coma

CHRONIC (Long term)

- Nephropathy
- Retinopathy
- Neuropathy
- Heart Diseases
- Diabetic foot problems & gangrene

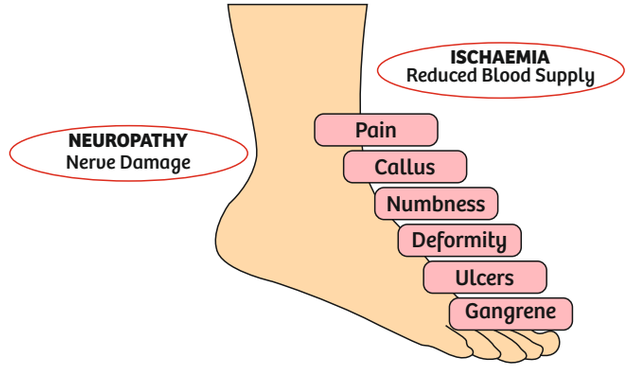
"Diabetes is like a roller coaster. It has its ups and downs, but its your choice to scream or enjoy the ride."





DIABETIC FOOT

Due to increased sugar levels in blood, the blood vessels and nerves are greatly affected



Foot Care for People with Diabetes

People with diabetes have to take special care of their feet. You should have a comprehensive foot exam every year. This page shows some more things you can do to keep your feet healthy.

Ask your diabetes care team how you should care for your toenails.

Wash your feet in warm water every day.

Wear clean, soft socks that fit you.

Dry your feet well, especially between the toes.

Keep your feet warm and dry. Always wear shoes that fit well.

Keep the skin soft with a moisturizing lotion, but do not apply it between the toes.

Never walk barefoot indoors or outdoors.

Inspect your feet every day for cuts, bruises, blisters, or swelling. Tell your doctor right away if you find something wrong.

Examine your shoes every day for cracks, pebbles, nails, or anything that could hurt your feet.

Take good care of your feet - and use them. A brisk walk every day is good for you.

PREVENTION OF DIABETES

HEALTHY LIVING WITH DIABETES

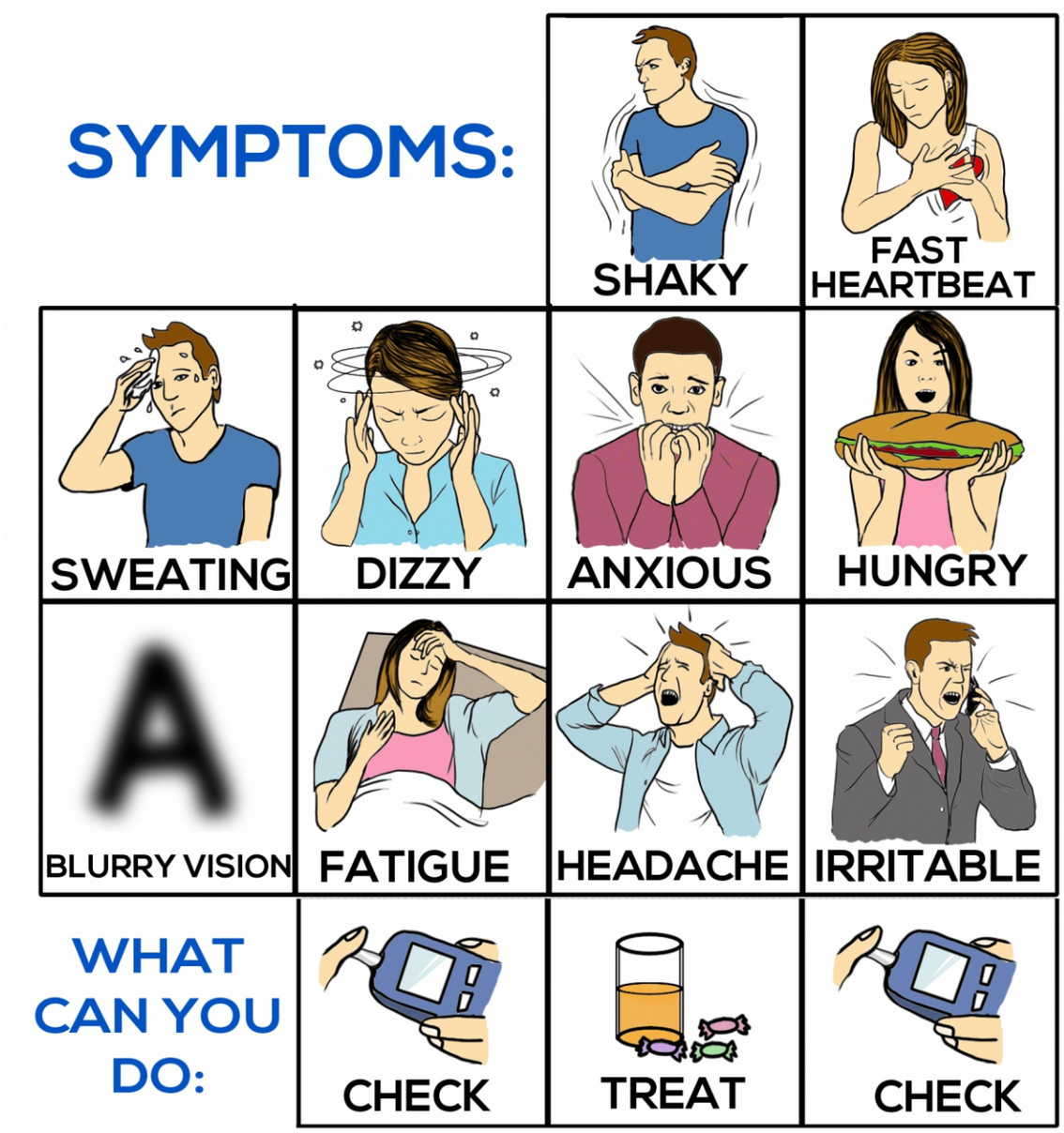
"Share a positive approach and do not let diabetes stand in the way of enjoying your life."

HYPOGLYCEMIA

(Low Blood Glucose Level)

CAUSES: Too little food or skip a meal; too much Insulin or Diabetes Pills

ONSET: Often Sudden; may pass out untreated



CHECK: YOUR BLOOD GLUCOSE RIGHT AWAY. IF YOU CAN'T CHECK-TREAT ANYWAY

TREAT: BY EATING 3 TO 4 GLUCOSE TABLETS OR 3 TO 5 HARD CANDIES; YOU CAN CHEW QUICKLY OR BY DRINKING 4 OUNCES OF FRUIT JUICE; OR 1/2 CAN OF SOFT DRINK

CHECK: YOUR BLOOD GLUCOSE LEVEL AGAIN AFTER 15 MINUTES. IF IT IS STILL LOW, TREAT AGAIN. IF SYMPTOMS DON'T STOP, CALL YOUR HEALTHCARE PROVIDER.

FAQS ON DIABETES

What is diabetes and pre-diabetes?
Diabetes is a state with 'increased blood sugar levels', which can damage your kidney, eye, heart, nerves, etc. Pre-diabetes means you are at a higher risk of developing diabetes.

What are the symptoms of diabetes?
Patients with mild elevated sugars may not have any symptoms. Usual symptoms of diabetes are: increased frequency of urination, excessive thirst, increased/decreased appetite, weight loss, burning feet, and generalized weakness.

How to confirm the diagnosis of diabetes?
Diagnosis of diabetes is confirmed by determining the fasting/ postprandial sugars or HbA1c. Fasting glucose 126 mg/dl or postprandial glucose >200 mg/dl or HbA1c >6.4% confirms 'Diabetes mellitus'. Fasting glucose 100-125 mg/dl or postprandial glucose 140-199 mg/dl or HbA1c 5.6-6.4% indicates 'Pre-diabetes'.

What is HbA1c?
HbA1c is a better reflection of sugar control than fasting or postprandial sugars because it is an average of last 3 months blood glucose levels. Hence, every diabetic patient should do HbA1c testing at least 2-3 times per year.

What are the types of diabetes'?
Type 1 diabetes, type 2 diabetes, diabetes in pregnancy and other types. Majority (90-95%) of the patients with diabetes have Type 2 diabetes.

What is the difference between Type 1 and Type 2 diabetes?
In Type 1 diabetes insulin is always required for sugar control and stopping insulin can lead to death while in Type 2 diabetes, sugar levels in blood can be controlled with oral drugs for many years and insulin is required in a few patients only.

Does eating too much of sugar/sweet lead to diabetes?
Not directly. In fact, eating too much calories in form of carbohydrates/fat in presence of sedentary lifestyle (physical inactivity) can lead to obesity. Obesity leads to insulin resistance (inability of insulin to control sugars) and hence diabetes.

Who is at risk of developing diabetes?
Those who are overweight or obese or have family member with diabetes are at risk for diabetes. Females with history of diabetes in pregnancy or Polycycstic ovarian syndrome/ disease (PCOS/PCOD) are also at increased risk of developing diabetes. Diabetes can occur in anyone without any of these risk factors because we Indians are already at high risk of developing diabetes.

Why is it important to control the sugars?
Uncontrolled diabetes can cause damage to eyes, kidney, and nerves. It can lead to stroke or heart diseases. It can also increase the risk of infections and diabetic foot problems. Hence, it is very important to control sugars.

Is it important to cure diabetes by yoga or any particular food items (such as bitter gourd juice) or any home remedies?
Diabetes is a state with 'increased blood sugar levels', which can damage your kidney, eye, heart, nerves, etc. Pre-diabetes means you are at a higher risk of developing diabetes.

Is it possible to control the sugars without medicines or is there any permanent cure for diabetes?
Sugars can be controlled with diet and lifestyle modifications (with weight loss) in some of the patients with type 2 diabetes. But, majority of the patients require medicines to control sugars.

Can the medicines used to control sugars damage the kidney?
No. Medicines used to treat diabetes don't damage the kidney and many other organs in the body.

What is the importance of diet, exercise, & weight loss in type 2 diabetes?
Diet, exercise, and weight loss helps in controlling sugars. If you don't follow diet, exercise, & weight loss, you will need higher dose of medicines to control sugars.

What is the role of exercise in controlling sugars?
Physical activity is the most important aspect of management of diabetes. At least 30 minutes of walking/day is advisable. Avoid prolonged (>90 minutes) sitting. Avoid watching TV or using laptops continuously for a long time. Exercise helps in controlling sugars and reducing weight. It also helps in lowering blood pressure and cholesterol levels and reducing the risk of heart disease or stroke.

What are the diet modifications for sugar control?
Avoid: Sugar, sweets, butter, ghee, cheese, honey, bakery products (khari/ toast/ biscuits/bread/ pav/ pastries/cakes), potato, sweet potato, fried items, fastfood, junk food, packaged food, fruit juices, and oily foods.

Limit: Rice, roti, and wheat

Prefer: Salads (cucumber/ tomato/ carrot/ onion/ cabbage/ capsicum), green leafy vegetables, pulses, sprouts, citrus fruits, and low fat milk.

Which fruits are preferred for diabetes?
Most of the fruits (except mango, banana, chikoo, & custard apple) are advisable in diabetes. At least 2-3 fruits per day are recommended. It is always better to eat whole fruit than fruit juice.

What is ideal sugar control?
Fasting glucose < 130 mg/dl, postprandial glucose < 180 mg/dl, and HbA1c <7%.

How to monitor the complications of diabetes?
A patient with diabetes needs to be monitored for eye, kidney, & foot problems at least once in a year. Blood pressure should be measured at regular intervals. Lipid profile (cholesterol) should be done at least once in a year.

FAQS ON OBESITY

What is obesity?

Obesity is the disorder with excessive accumulation of body fat. It occurs because of imbalance between calorie intake and calorie usage. Eating foods with high calories (high fat/high carbohydrate) and lack of exercise/physical activity leads to obesity.

How do I know if I am obese or overweight?

The body mass index (BMI) is calculated by dividing the weight (in kg) with the square of height (in meter). For most adults, an ideal BMI is in the 18.5 to 24.9 range. For children and young people aged 2 to 18, the BMI calculation takes into account age and gender as well as height and weight.

If your BMI is:

- below 18.5 – you're in the underweight range
- between 18.5 and 24.9 – you're in the healthy weight range
- between 25 and 29.9 – you're in the overweight range
- between 30 and 39.9 – you're in the obese range

Why is there so much of talk about obesity epidemic in Indians?

Complications of obesity occur at much lower weights/BMI in Indians as compared to that in the western world. Hence, we Indians have to be much more careful about obesity and its future complications. Hence, there is an urgent need of awareness and willingness to fight obesity in general population.

Why should obesity be treated?

Untreated obesity can lead to diabetes, high cholesterol, hypertension, heart diseases, and stroke. In addition it can increase the risk of some cancers. Hence, it should be treated as soon as possible.

How to treat obesity?

Most important aspect of treating obesity is diet and lifestyle modifications. Total caloric intake has to be decreased by avoiding food items with high fat/high carbohydrate content. Caloric usage has to be increased by increasing physical activity/exercise. At least 30 minutes of walking/day is recommended.

What diet should be taken in obesity?

Avoid: Sweets, butter, ghee, cheese, honey, bakery products (khari/ toast/ biscuits/bread/ pav/ pastries/cakes), potato, sweet potato, fried items, fastfood, junk food, packaged food, fruit juices, and oily foods.

Limit: Rice, roti, and wheat

Prefer: Salads (cucumber/ tomato/ carrot/ onion/ cabbage/ capsicum), green leafy vegetables, pulses, sprouts, citrus fruits, and low fat milk.

What is role of medicines in obesity?

Medicines are indicated when BMI is >30 kg/m^2 or >27kg/m^2 with complications of obesity. Medicines work by reducing fat absorption (eg: orlistat) or by reducing appetite (eg: liraglutide).

What is the role of bariatric surgery in obesity?

Bariatric surgery is indicated in patients having BMI >40 kg/m^2 or >35 kg/m^2 with complications of obesity.

COMPLICATIONS OF OBESITY

- Diabetes Mellitus
- Fatty liver
- Hypertension
- Gallstones
- High cholesterol
- Hormonal imbalance
- PCOS in females
- Knee joint arthritis
- Cancers (breast, colon, uterus, etc.)

GOOD FAT V/S BAD FAT

GOOD FAT

Polyunsaturated fat/ monounsaturated fat

(eg: walnut, flaxseeds, fatty fish, almonds, cashew, olive oil, avocado, sesame seeds, pumpkin seeds)

BAD FAT

Saturated fat/ trans fat

(eg: meat, high fat dairy products, eggs, coconut oil, palm oil, butter, ghee)

NOTE

NOTE