











Central Ayurveda Research Institute

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Essentials of Madhumeha



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Essentials of Madhumeha

Overview

Madhumeha is classified under the category of Maharoga (diseases with serious consequence) in Ayurveda. The clinical presentation of Madhumeha is comparable to that of diabetes mellitus.

What is Madhumeha (Diabetes)?

Ayurveda considers Madhumeha as one type of 20 urinary disorders known as Prameha. These sets of diseases manifest as a result of medovaha srothodusti (abnormalities in body fats or adipose tissue) with additional derangement in all the body tissues. The common symptoms of all Prameha are profuse and hazy urine. The 19 types of Prameha, if neglected, can lead to Madhumeha and become incurable.

Diabetes occurs when the blood glucose/ sugar level is too high. Blood glucose is the main source of energy that is derived from the food. Insulin, a hormone produced by the pancreas, helps glucose from the food to enter the cells which are then utilized for energy. When sufficient or no insulin is produced or it is not rightly used, glucose remains in the blood and does not enter the cells.

Uncontrolled diabetes eventually affects other organs like the eyes, heart, kidney, brain, nerves and causes various complications.

What are the different types of diabetes?

According to Ayurveda,

- I. Based on characteristics of urine and urination according to dosha:
 - Kaphaja prameha -10 types (easy to treat)
 - Pittaja prameha -6 types (can be managed)
 - Vataja prameha 4 types (not curable)

II. Based on etological factors:

- Sahaja / Jatah pramehi genetic predisposition
- Apathyanimittaja- due to faulty lifestyle

III. Based on body constitution:

- Sthulapramehi- obese/overweighing
- Krishapramehi- thin person

According to the American Diabetes Association and the World Health Organization, diabetes can be classified into four main types

- Type I diabetes
- Type 2 diabetes
- Gestational diabetes
- Other types of diabetes (monogenic diabetes, pancreatic diabetes, drug-induced diabetes etc.)

Type 1 diabetes

In type 1 diabetes, the body does not produce insulin. The immune system attacks and destroys the cells in the pancreas that produce insulin. Children and young adults are more likely to have this, although it can appear at any age. People with type 1 diabetes are dependent on insulin for its management.

Type 2 diabetes

In type 2 diabetes, the body either does not produce enough insulin or utilizes insulin properly. This can develop at any age, even during childhood. However, this type of diabetes is most often seen in middle-aged and older people. Type 2 is the most common type of diabetes.

Gestational diabetes

Gestational diabetes can occur in some women when they are pregnant. For the majority of women, this type of diabetes goes away after delivery but sometimes diabetes diagnosed during this phase is the actual type2 diabetes. However, gestational diabetics are more prone to develop type2 diabetes later in life.

Pre diabetes

Pre diabetes is a condition where blood sugar levels are higher than normal, but not so high to be diagnosed as type 2 diabetes. 80% of pre diabetic patients do not know that they have it. Pre diabetics have increased risk of developing type 2 diabetes eventually.

What Causes Pre diabetes?

Insulin is a hormone produced by the pancreas which acts like a key to allow blood sugar into cells to use as energy. The cells in the body don't respond normally to insulin in case of pre-diabetes. Therefore the pancreas produces more insulin to try to make the cells to respond. Eventually pancreas gets exhausted, and blood sugar level rises, setting the stage for pre diabetes and type2 diabetes down the line.

Impaired glucose tolerance and impaired fasting glycemia Impaired glucose tolerance (IGT) and impaired fasting glycemia (IFG) are intermediate conditions that lie between normalcy and diabetes. People with IGT or IFG are at high risk to develop type 2 diabetes.

How to test?

- Fasting blood test
- Post prandial blood test
- HbAlc
- Random blood sugar
- Oral glucose tolerance test

What is the diagnostic criterion?

| ТҮРЕ | HbA1c (%) | FBS (mg/dl) | PPBS (mg/dl) | RBS (mg/dl) |
|----------------------|-------------|--|--------------|-------------|
| Normal | ≤ 5.7 | ≤ 99 | ≤ 139 | N/A |
| Pre-diabetes | 5.7 - 6.4 | 100 - 125 | 140-199 | N/A |
| Diabetes | ≥ 6.5 | ≥ 126 | ≥200 | ≥200 |
| Gestational diabetes | 5.45 - 5.95 | OGTT (75g Glucose intake) Fbs >126 or 2 hour - >140 | | |

Are you at risk?

- Do you have a family history of Diabetes?
- Do you lead a sedentary lifestyle?
- Do you consume too much of milk and its products such as curd, ghee, butter etc.; sugar, jaggery, sweet foods, sweetened beverages or consume less dietary fibre?
- Do you consume too much of curds especially during night?
- Did you have diabetes during pregnancy?
- Are you overweight / obese or have central obesity?
- Do you have any addictions like smoking or alcohol?
- Do you suffer from any other health conditions like PCOS, high blood pressure, heart problems or impaired lipid metabolism?
- Do you have too much stress or suffer from loss of sleep?

What are the symptoms?

(May not have any symptoms though blood glucose levels are high)

- Excess and/or frequent urination
- Excess thirst/ dry mouth
- Constant hunger
- Tiredness without much physical activity
- Unintentional loss of weight or gain of weight
- Delayed healing of wounds
- Burning sensation or numbness/tingling sensation in extremities
- Visual disturbances
- Itchy skin or dark patches of skin
- Frequent Urinary tract infections
- Excessive sweating
- Having more infections than usual

What are the complications?

- Cardiovascular diseases
- Diabetic eye disease
- Diabetic kidney disease
- Nerve damage
- Ketoacidosis and ketones
- Hypoglycemia

Clarifying Myths

- Diabetes does not spread from person to person. It is a noncommunicable disease
- Primary diabetes is not reversible. It can only be managed with diet, lifestyle and medication.
- Consumption of sweets alone need not cause diabetes; however, too much of anything is not good for health.
- All forms of sweet items including jaggery, sugar cane and honey increase blood sugar.
- Restricted diet or exercise/Yoga alone may not be enough sometimes for the management of diabetes.
- Sudden change in the food habits like switching to only millet is not recommended without consulting a physician.
- Lean persons can also get diabetes.

How to live with diabetes?

- Don't use any medication based on advertisements without enquiring with your physician.
- Visit the physician at regular intervals, never stop regular medication without consulting your physician.
- Monitor blood glucose levels if you start a strict diet, home remedies, lifestyle change, or Yoga. Self medication of any form is strictly prohibited.
- Maintain appropriate weight and waist circumference.
- Practice Yoga under the guidance of an expert.
- Limit intake of sweets, sweet fruits, dairy products other than butter milk, oil items, fast/junk food
- One should only eat when he is hungry. Munching food in between meals should be avoided.
- Follow a proper diet, eat fresh, warm food. Eat only when hungry, do not over eat.
- Manage your blood glucose levels and HbA1c.
- Keep a watch on health indices like hunger, thirst, energy, sleep, urination and skin.
- Manage your stress levels
- Take care of your foot, eyes, tooth. Prevent diabetes complications.
- Analyze your body BMI and waist circumference (WC) and act accordingly.

Which food items are wholesome?



Cereals - Barley, jowar, wheat, old rice, red rice, millets. These can be consumed in various forms like sattu (dry powder of roasted cereals/pulses), cooked cereals, chapati/ roti, upma, khichdi, dosa, ganji.



Pulses - Green gram, pigeon peas, bengal gram, horse gram. These can be consumed in various forms like salads, rasam, sambar, khichdi.



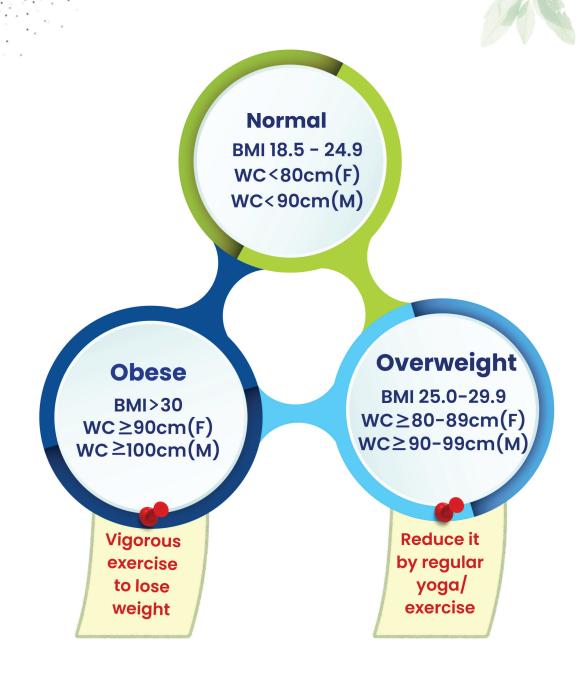
Vegetables - Bitter gourd, fenugreek leaves, moringa leaves, garden nightshade leaves(kasha/ ganike soppu), snake gourd, ivy gourd, cluster beans, raddish, bottle gourd, cucumber, ash gourd, ridge gourd are beneficial



Fruits – Gooseberry, indian black berry, guava, pomegranate, wood apple, ice apple, papaya, avocado, citrous fruits, berries in measured quantity



Masala- Himalayan pink salt, turmeric, cumin seeds, black pepper, ginger, garlic, onion, cinnamon, clove, fenugreek, flax seeds



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