What is diabetes? Diabetes is a disease in which blood glucose levels are above normal. Most of the food we eat is turned into glucose, or sugar, for our bodies to use for energy. Our bodies produce a hormone called insulin to help absorb glucose into the cells of our bodies. When you have diabetes, your body either cannot use its own insulin as it should or does not make enough insulin. This causes sugar to build up in your blood.

What are the main causes of diabetes? Obesity and lack of physical activity are two leading causes, though it could also be hereditary.

How can diabetes impact your health? Diabetes can have serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations.

What are the symptoms of diabetes? Diabetes patients may have SOME or NONE of the following symptoms:
- Frequent urination
- Excessive thirst
- Unexplained weight loss
- Extreme hunger
- Sudden vision changes
- Tingling or numbness in hands or feet
- Feeling very tired much of the time
- Very dry skin
- Sores that are slow to heal
- More infections than usual.

Nausea, vomiting, or stomach pains may accompany some of these symptoms.

Diabetes dramatically increases a person’s risk for heart disease, stroke, high blood pressure, cholesterol disorders, obesity, and insulin resistance.

What are the types of diabetes?
- **Type-1 Diabetes**: (5% to 10% of all diagnosed cases of diabetes cases).
- **Type-2 Diabetes**: (90% to 95% of all diagnosed cases of diabetes cases).
- **Gestational Diabetes** affects only pregnant women, though it usually disappears when a pregnancy is over. If not treated, it can cause problems for mothers and babies.
- **Other specific types of diabetes** resulting from specific genetic syndromes, surgery, drugs, malnutrition, infections, and other illnesses may account for 1% to 2% of all diagnosed cases.

What are your risk factors for diabetes? For type-1 Diabetes, risk factors are less well defined, but autoimmune, genetic & environmental factors are some of the potential causes.

Risk factors for type-2 Diabetes include old age, obesity, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity.

Gestational diabetes affects more frequently those with a family history of diabetes. Obesity is also associated with higher risk. Women who have had gestational diabetes are at increased risk for later developing type-2 Diabetes.

What causes Diabetes? Exposure to an “environmental trigger,” such as an unidentified virus, stimulating an immune attack against pancreas (that produces insulin) may be a leading
cause, though the exact mechanisms for developing both, type-1 and type-2 Diabetes is not known.

**What is the treatment for diabetes?** Healthy eating and physical activity are the basic therapies for both, type-1 and type-2 diabetes. In addition, type-1 diabetes may require insulin injections; blood glucose levels must be closely monitored through frequent blood glucose testing. Type-2 diabetes therapy may require glucose testing, oral medication & insulin, or both. Diabetes patients must take responsibility for their day-to-day care, and keep blood glucose levels from going too low or too high.

**Is there a cure for diabetes?** The following approaches still have a lot of challenges, but progress is being made in all areas:
- Pancreas transplantation
- Islet cell transplantation (they produce insulin)
- Artificial pancreas development
- Genetic manipulation.

**Can diabetes be prevented?** Regular physical activity can significantly reduce the risk of developing type-2 diabetes, which appears to be associated with obesity. Hypertension greatly increases risk for cardiovascular disease. High blood pressure can also create problems for other organs, such as damage to the kidneys.

**Should a person with diabetes fast?** Fasting during Ramadan is safe for patients with proper education and careful management. Fasting effects poorly controlled diabetic patients negatively.

**Do’s & Don’ts with diabetes:**
- Substitute sucrose with natural sugar, like honey, jaggery (gur), etc.
- Reduce the intake of table salt.
- Exclude fried foods from your diet, except for a small quantity of oil to absorb fat-soluble vitamins, especially vitamin E.
- Eat less red meat; substitute with lean fish two to three times a week.
- Replace white flour and its products with whole grains, or whole wheat. Add wheat bran to wheat flour; this helps increase fiber in your diet.
- Make diabetic flour by mixing wholegrain cereal, soy bean, black gram (urad dal), jowar, bajra, Bengal gram (kala chana), wheat bran and barley.
- Eat food at fixed time.
- Drink a lot of water to help flush the toxins.
- Include fresh vegetable salad in every meal.
- Have at least 20-25 grams of raw onion daily.
- Add flax seed and methi seeds into the wheat flour. Include sprouts in your diet.
- If you are on insulin, make sure you have three proper meals with light snacks in between.
- Avoid white rice, potatoes, carrots, breads and banana.
- Do not eat immediately after a workout.
- Do not overeat.
- Do not eat fast; chew your food well.
- Consume more antioxidants - especially vitamin C (lemons), Vitamin E, selenium, zinc and chromium.

**Natural Remedy:**
Narrated Abu Huraira, I heard Allah's Apostle (peace be upon him) saying, "There is healing in black cumin for all diseases except death." Sahih Bukhari, Volume 7, No. 592

One remedy recommended by herbalists:
Black seed oil: 5 drops; Methi seed (Fenugreek): ½ teaspoon powdered; Kasni bark (Prunus serotina): powdered ½ teaspoon. Mix the three and swallow two times a day. In addition, drink 1 cup of karela (bitter gourd) juice every three days.

Another remedy recommended by herbalists:
Kalonji seed: 20 grams; Kasni seed (Prunus serotina): 15 grams; Methi seed (Fenugreek): 10 grams; Hab al-Rashad (Lepidium sativum):10 grams. Grind all the herbs and seeds together into a powder and eat ½ teaspoon twice a day after a meal everyday.

**Sources:** National Center for Chronic Disease Prevention and Health Promotion, USA. 2006; Diabetics: Heed these diet tips! Priya Khanna, Seema Tarneja; Ramadan fasting and Diabetes mellitus. Fereidoun Azizi, MD and Behnam Shiahkolah, MD

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