

# Diabetes Mellitus

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# What is diabetes?

- ▶ Diabetes mellitus (DM) is a group of metabolic diseases characterized by high levels of blood glucose resulting from defects in insulin production, insulin action, or both.


# Types of Diabetes

- ▶ Type 1 Diabetes Mellitus
  - ▶ Type 2 Diabetes Mellitus
  - ▶ Gestational Diabetes
  - ▶ Other types
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# Type 1 diabetes

- ▶ Was previously called insulin-dependent diabetes mellitus (IDDM) or juvenile-onset diabetes.
  - ▶ Type 1 diabetes develops when the body's immune system destroys pancreatic beta cells, the only cells in the body that make the hormone insulin that regulates blood glucose.
  - ▶ Type 1 diabetes may account for 5% to 10% of all diagnosed cases of diabetes.
  - ▶ Risk factors for type 1 diabetes may include autoimmune, genetic, and environmental factors.
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# Type 2 diabetes

- ▶ Was previously called non-insulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes.
  - ▶ Type 2 diabetes may account for about 90% to 95% of all diagnosed cases of diabetes.
  - ▶ It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce insulin.
  - ▶ Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity.
  - ▶ Type 2 diabetes is increasingly being diagnosed in children and adolescents.
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# Gestational diabetes

- ▶ A form of glucose intolerance that is diagnosed in some women during pregnancy.
- ▶ Gestational diabetes occurs more common among obese women and women with a family history of diabetes.

# Other types of DM

- ▶ Other specific types of diabetes result from specific genetic conditions (such as maturity-onset diabetes of youth), surgery, drugs, malnutrition, infections, and other illnesses.


# Normal Range

▶ FBS 80–126


▶ RBS 80–180




# Signs And Symptoms

- ▶ Frequent urination
  - ▶ Excessive thirst
  - ▶ Unexplained weight loss
  - ▶ Extreme hunger
  - ▶ Sudden vision changes
  - ▶ Tingling or numbness in the hands or feet
  - ▶ Feeling very tired much of the time
  - ▶ Very dry skin
  - ▶ Sores that are slow to heal
  - ▶ More infections than usual
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# Risk Factors

- ▶ family history of diabetes
  - ▶ Obesity
  - ▶ Race/ethnicity
  - ▶ Age
  - ▶ Hypertension
  - ▶ High-density lipoprotein
  - ▶ History of gestational diabetes
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# Complications of diabetes

- ▶ Heart Problems
  - ▶ Stroke
  - ▶ Eye sight problems
  - ▶ Kidney problems
  - ▶ Foot problems
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# Management of Diabetes Mellitus



# Management of DM

- ▶ The major components of the treatment of diabetes are:

**A**

- **Diet and Exercise**


**B**

- **Oral hypoglycaemic therapy**

**C**

- **Insulin Therapy**

# Medication for diabetes

- ▶ **Alpha Glucosidase Inhibitors**
  - ▶ **Amylin Analogues**
  - ▶ **Metformin**
  - ▶ **Aspirin**
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# Self-Care

## ▶ Self-care should include:

- Blood glucose monitoring
- Body weight monitoring
- Foot-care
- Personal hygiene
- Healthy lifestyle/diet or physical
- Identify targets for control
- Stopping smoking



# Nursing Care Plans

- ▶ Restore fluid/electrolyte and acid–base balance
  - ▶ Correct/reverse metabolic abnormalities
  - ▶ Identify/assist with management of underlying cause/disease process
  - ▶ Prevent complications
  - ▶ Provide information about disease process/prognosis, self–care, and treatment needs
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# QUESTION

- ▶ What is the difference between diabetes type 1 and diabetes type 2?

# THE DIABETIC FOOT

# Definition

**Infection, ulceration or destruction of deep tissues associated with neurological abnormalities & various degrees of peripheral vascular diseases in the lower limb**

# Staging of Diabetic Foot

Stage	Clinical condition
1	Normal
2	High risk
3	Ulcerated
4	cellulitic
5	Necrotic
6	Major amputation















# Signs and Symptoms of Foot Problems

- ▶ burning, tingling, or painful feet
  - ▶ loss of sensation of heat, cold, or touch
  - ▶ changes in color or shape of your feet
  - ▶ loss of hair on the toes, feet, and lower legs
  - ▶ thickening and color change (yellow) of the toenails
  - ▶ onset of blisters, sores, ulcers, infected corns, or ingrown toenails
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# Nursing Care for Diabetic Foot

- ▶ Blood Sugar Control
  - ▶ Inspect Your Feet Daily
  - ▶ Wash and Moisturize Your Feet Daily
  - ▶ Avoid Thermal Injury
  - ▶ Exercise
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»» Thank You

