



TYPES OF DIABETES



Definition

- Disorder of glucose metabolism
- Insulin production and/or utilization is impaired.
- Hyperglycemia develops, which requires treatment to control.
- Chronic disease that affects multiple organ systems

Pathophysiology

- **Type 1:** Pancreatic beta cells are no longer able to produce insulin.
- **Type 2:** Pancreas produces less insulin over time.
- **Both types:** Liver and muscles are unable to properly utilize glucose.

Comparison

	Type 1 diabetes	Type 2 diabetes
Prevalence	5%–10% of clients	90%–95% of clients
Onset	Abrupt	Gradual
Population affected	Most commonly diagnosed in teenage years, typically diagnosed < age 40	Most commonly diagnosed in adulthood, but increasing diagnosis in childhood
Characteristics	<ul style="list-style-type: none"> • Absent or minimal insulin production • Islet cells antibodies often present at diagnosis 	Initial insulin production, insulin resistance develops over time, insulin production decreases
Causes	Virus or toxins, considered an autoimmune condition	Genetic and environmental factors such as physical inactivity, obesity
Symptoms	Polyuria, polydipsia, polyphagia, fatigue, unexpected weight loss	May have no symptoms, fatigue, recurrent infections, may have polyuria, polydipsia or polyphagia
Treatment	<ul style="list-style-type: none"> • Requires insulin administration • Glucose monitoring 	<ul style="list-style-type: none"> • May use oral antidiabetic medications • May eventually require insulin • Glucose monitoring • Lifestyle changes
Complications	Eye disease, kidney disorders, stroke, MI, neurologic and vascular disease, nerve damage	

Diagnosis

The following lab tests can confirm the diagnosis of diabetes:

- HbA1c \geq 6.5 %
- Fasting plasma glucose \geq 126 mg/dL
- Two-hour plasma glucose \geq 200 mg/dL
- Symptoms with a random plasma glucose \geq 200 mg/dL

Client education

- Teach clients how and when to monitor glucose levels at home.
- Provide education on the role of diet and exercise in diabetes management.
- Teach clients how to use prescribed medications and about potential side effects.
- Educate clients on when to call their provider and when to seek emergency care.

SIGNS OF DIABETIC EMERGENCY

- Hunger
- Clammy skin
- Profuse sweating
- Drowsiness or confusion
- Feeling faint
- Sudden loss of responsiveness
- Weak and rapid pulse
- Nausea/vomiting
- Seizures
- Temporary paralysis

Target glucose levels for diabetics

Fasting

80–130

2 hour post-prandial

\leq 180

HbA1C

\leq 7 %