

Managing hyperglycemia: Strategies for controlling high blood sugar levels

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Received: 19-Jun-2024, Manuscript No. FMDM-24-146263; **Editor assigned:** 21-Jun-2024, PreQC No. FMDM-24-146263 (PQ); **Reviewed:** 05-Jul-2024, QC No. FMDM-24-146263; **Revised:** 12-Jul-2024, Manuscript No. FMDM-24-146263 (R); **Published:** 19-Jul-2024, DOI: 10.37532/1758-1907.2024.14(4).644-645.



Description

Hyperglycemia refers to a condition where blood glucose levels exceed normal limits. For most individuals, blood sugar levels are considered hyperglycemic when they rise above below levels.

- Fasting blood glucose level: ≥ 126 mg/dL (7.0 mmol/L)
- Postprandial (2 hrs after eating): ≥ 180 mg/dL (10.0 mmol/L)

■ Symptoms of hyperglycemia

Recognizing the symptoms of hyperglycemia is crucial for early intervention. Symptoms may vary in intensity depending on the severity of the condition but commonly include below symptoms.

Increased thirst (Polydipsia): High blood sugar levels lead to dehydration, causing excessive thirst.

Frequent urination (Polyuria): The kidneys try to remove excess glucose from the blood through urine, leading to frequent urination.

Fatigue: High blood sugar levels can make it difficult for the body to use glucose for energy, resulting in feelings of fatigue and weakness.

Blurred vision: Elevated glucose levels can cause swelling in the lens of the eye, leading to temporary changes in vision.

Headaches: Hyperglycemia can cause headaches due to dehydration and fluctuations in blood sugar levels.

Unintended weight loss: In cases of severe hyperglycemia, the body may start breaking

down fat and muscle for energy, leading to weight loss.

Dry mouth and skin: Dehydration caused by high blood sugar can lead to dryness of the mouth and skin.

Slow-healing wounds: High glucose levels impair circulation and the immune system, leading to slow wound healing and an increased risk of infections.

Nausea and vomiting: In extreme cases, hyperglycemia can lead to diabetic ketoacidosis (DKA), where the body breaks down fat for energy, leading to the production of ketones. This can cause nausea, vomiting, and abdominal pain.

■ Risks and complications of hyperglycemia

Chronic or severe hyperglycemia can lead to serious health complications, particularly in individuals with diabetes. Some of the major risks and complications are given below.

Cardiovascular disease: Prolonged high blood sugar levels can damage blood vessels and increase the risk of heart disease, stroke, and hypertension.

Diabetic neuropathy: Hyperglycemia can damage the nerves, leading to numbness, tingling, and pain, particularly in the extremities.

Kidney damage (diabetic nephropathy): Over time, high blood sugar can damage the kidneys, leading to kidney disease or failure.

Eye damage (diabetic retinopathy): Chronic hyperglycemia can damage the blood vessels in

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the retina, leading to vision problems and even blindness.

Diabetic Ketoacidosis (DKA): DKA is a life-threatening condition that occurs when the body starts breaking down fat for energy, leading to the production of ketones. This can cause a dangerous drop in blood pH, requiring immediate medical attention.

Hyperosmolar Hyperglycemic State (HHS): HHS is a severe complication of hyperglycemia, characterized by extreme dehydration and very high blood sugar levels. It primarily affects individuals with type 2 diabetes and can lead to coma or death if not treated promptly.

■ **Managing hyperglycemia**

Managing hyperglycemia requires a comprehensive approach that includes lifestyle changes, medication, and regular monitoring. Key strategies are given below.

Monitoring blood glucose levels: Regular blood sugar checks are essential for managing hyperglycemia. Monitoring helps individuals identify trends and make necessary adjustments to their treatment plan.

Medication adherence: Taking insulin or oral

diabetes medications as prescribed is crucial for maintaining stable blood glucose levels. Dose adjustments may be needed based on blood sugar readings, dietary changes, or physical activity.

Healthy eating: A balanced diet that focuses on whole grains, lean proteins, healthy fats, and plenty of fruits and vegetables can help regulate blood sugar levels. Carbohydrate counting and portion control are essential for preventing blood sugar spikes.

Regular exercise: Physical activity improves insulin sensitivity and helps lower blood glucose levels. Incorporating regular exercise, such as walking, swimming, or cycling, can significantly improve glycemic control.

Stress management: Learning to manage stress through relaxation techniques, mindfulness, and other coping strategies can help prevent stress-induced hyperglycemia.

Hydration: Drinking plenty of water can help flush excess glucose from the bloodstream and prevent dehydration.

Medical consultation: Regular check-ups with a healthcare provider are essential for managing hyperglycemia. They can adjust treatment plans, provide guidance, and monitor for complications.