
Blood sugar - uncontrolled

DEFINITION /PATHOPHYSIOLOGY

Poor glycemic control refers to persistently elevated blood glucose which may range from 200–500 mg/dl, and glycosylated hemoglobin levels (A1C 9-15%) or higher over months and years before severe complications occur.

Diabetes is a disease of the pancreas in not producing enough usable insulin. This affects the blood vessels all over the body and cardiovascular system causing irreversible damage to walls of the blood vessels. Most patients die from complications of these blood vessel disorders, and not the blood sugar disequilibrium itself.

SIGNS & SYMPTOMS

Hypoglycemia

Blood sugar levels below 70 mg/dl: **THIS CONDITION IS AN EMERGENCY.**

Treatment is: STAT ingestion of sugar/juice followed by protein meal (i.e. sandwich)

Early symptoms include:

- Confusion
- Dizziness
- Feeling shaky
- Hunger
- Headaches
- Irritability
- Pounding heart; racing pulse
- Pale skin
- Sweating
- Trembling
- Weakness
- Anxiety
- Too little food, or eating foods too high in sugar or carbohydrates
- Too much exercise
- Too much medication

Without treatment, you might get more severe symptoms, including:

- Poor coordination
- Poor concentration
- Numbness in mouth and tongue
- Passing out
- Seizures
- Coma

Hyperglycemia

Blood sugar levels above 180 mg/dl) **THIS CONDITION CAN COME ON GRADUALLY OVER A FEW HOURS OR FEW DAYS.**

Treatment is: STAT insulin injection followed by IV fluids. HOLD on food until blood sugar is stabilized, as there is already too much glucose circulating in patient's blood. Need to give the INSULIN time to work.

Early signs include:

- Thirst
- Headaches
- Trouble concentrating
- Blurred vision
- Frequent urination
- Fatigue (weak, tired feeling)
- Weight loss without loss of appetite
- Blood sugar more than 180 mg/dL
- Too much food, or off the diet plan
- Too little medication, or not taking meds on time
- Too little exercise

Ongoing high blood sugar may cause:

- Vaginal and skin infections
- Slow-healing cuts and sores
- Worse vision
- Nerve damage causing painful cold or insensitive feet, loss of hair on the lower extremities, or erectile dysfunction.
- Stomach and intestinal problems such as chronic constipation or diarrhea
- Damage to your eyes, blood vessels, or kidneys

ASSESSMENT:

History-

- Question the patient's familial background about Diabetes.
- Review medical records for any abnormalities in blood sugar or HbA1c.

Physical-Mental

- Ask if patient has experienced excessive thirst (polydipsia), excessive urination (polyuria), or excessive hunger (polyphagia). These are the first 3 early symptoms.
- Question if patient has experienced any visual difficulties, kidney problems, or changes in circulation and sensation to the extremities such as numbness or tingling or pruritus.
- Determine if patient was under stress.

NURSING INTERVENTIONS

DIABETIC TREATMENT PLAN includes: tailored diet; exercise; medications; and blood sugar monitoring.

- Assess for signs of hyperglycemia or hypoglycemia.
- Assess medication taken regularly.
- Monitor blood glucose levels as fasting and postprandial levels.
- Monitor serum insulin levels.
- Assess eating patterns and knowledge of the prescribed diet. Refer to dietitian for reviewing "Diabetic Diet Plan". Assist the patient in identifying eating patterns that need changing.
- Assess the pattern of physical activity.
- Assess alcohol intake.
- Administer insulin or hypoglycemic medications as directed.
- Administer glucose or other sources of glucose as directed for hypoglycemia.

PATIENT TEACHING

- Teach patient about following a prescribed meal plan.
- Teach patient about taking prescribed medications to lower blood glucose.
- Instruct the patient experiencing hypoglycemia about appropriate actions to raise blood glucose level.
- Teach patient to balance exercise with food intake.
- Teach patient about measuring capillary blood glucose.
- Instruct patient to carry medical alert information.
- Teach about severely elevated blood glucose levels can cause: heart attack; stroke; blindness; kidney failure; wounds that take long to heal; amputations from poor circulation; etc.

CULTURAL CONSIDERATIONS

Take in to consideration patient culture when planning meals.

Take in to consideration patient culture when assessing knowledge about diabetes and management of the disease.

COORDINATING CARE WITH NURSING ASSISTANT

Teach the common signs and symptoms of hypoglycemia and hyperglycemia and to report any of them to the nurse or physician promptly.

Teach about measuring capillary blood glucose.

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