



**RAMA
UNIVERSITY**

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FACULTY OF NURSING



JUVENILE DIABETES



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Definition

Juvenile diabetes is defined as the sharp rise in blood glucose level (hyperglycemia) in children due to pancreatic dysfunctions that leads to an acute shortage of insulin which is responsible for regulating blood glucose level. It is also called type I diabetes

Causes

- Several dietary (deficient in vitamin D, drinking cow milk from an early age)
- Environmental
- Genetic factors
- Autoimmune disorders (graves disease)
- Production of insulin which is rejected by the body and cannot be effectively utilized for regulating blood glucose concentration

- A familial history of type I diabetes
- Few viruses like epstein-barr virus, coxsackie virus, rubella or cytomegalovirus
- He gradual decline in the production of insulin by the pancreas
- Insulin resistance in liver and skeletal muscles causing the liver to produce excess glucose
- Production of excess free fatty acids by the fat cells, which causes insulin deficiency

Symptoms

- Excessive thirst (due to the extraction of fluid from body tissues under high glucose condition)
- Dryness in mouth
- Frequent need of urination
- Abdominal pain
- Nausea and vomiting
- Presence of glucose in urine (not visible to naked eye)

- Dizziness and occasional convulsions
- Mood swings and irritability
- Genital yeast infection (in diabetic girls)
- Increased infections of skin, genitals and urinary tract
- The fruity smell in breath
- Delayed recovery from injuries
- Itchy and reddish skin, with the occasional rash formation

Diagnosis

- Blood sugar test
- Glycated hemoglobin (A1C) test
- Lipid test
- Kidney function test:
- Dilated eye examination
- Dental examination

- Vision impairments
- Abnormally increased appetite (due to energy shortfall in muscles and organs)
- Abnormal weight loss (due to shrinkage of muscle tissue and stored fat)
- Shortage of breath
- Sluggishness and extreme fatigue

Recommendations for juvenile diabetes

- Monitor the blood glucose level on a regular basis
- Provide insulin according to doses recommended by the doctor
- Maintain a balanced diet containing essential vitamins and minerals and low in sugar and starch

- Check for arsenic and nitrate concentrations in regular drinking water
- Perform physical activities such as swimming or work-outs on a daily basis
- Identify symptoms of low and high blood glucose levels
- Go for morning walks and jogging regularly
- Engage in diabetes management programs

Treatment & Prevention

Depending on the requirement and urgency of the situation,

any one of these 4 doses of insulin can be given:

- ***Rapid-acting – action starts within 15 minutes.***
- ***Short-acting (regular dose of insulin)- 30 minutes.***
- ***Intermediate-acting – starts after 2 to 4 hours.***
- ***Long lasting – more than 4 hours.***

1 Right upper arm

2 Left upper arm

3 Right abdomen

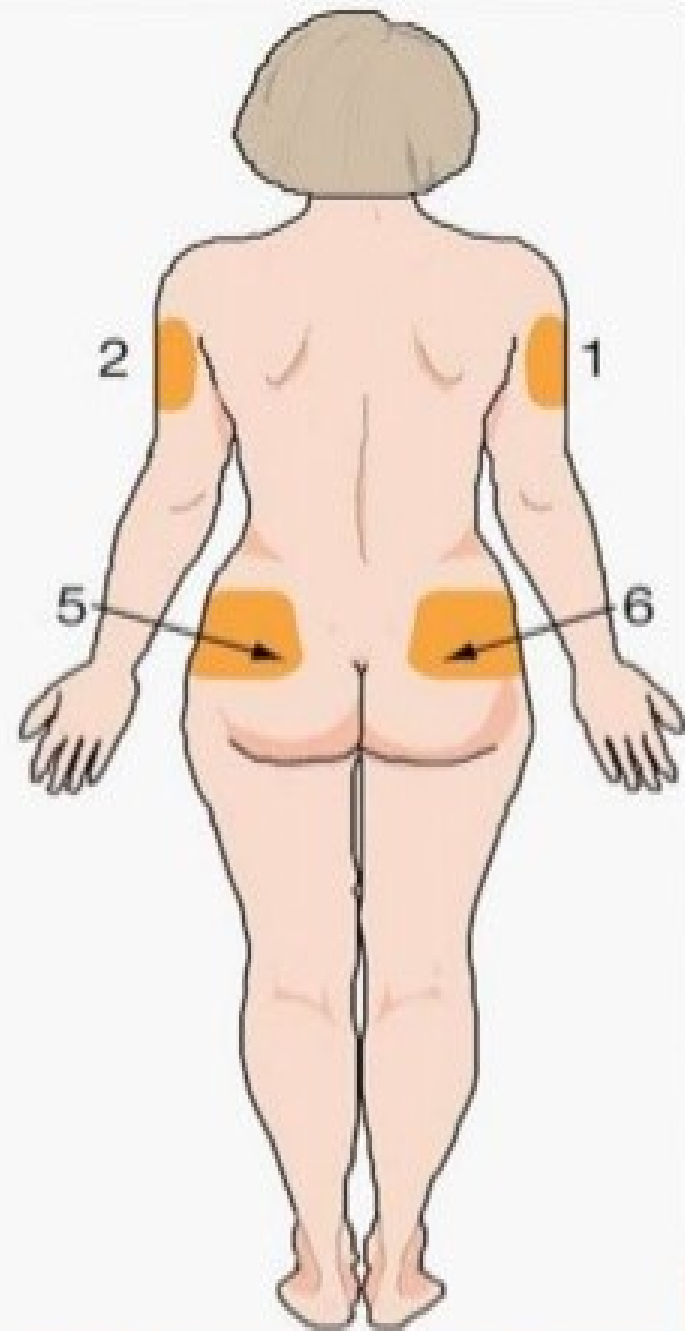
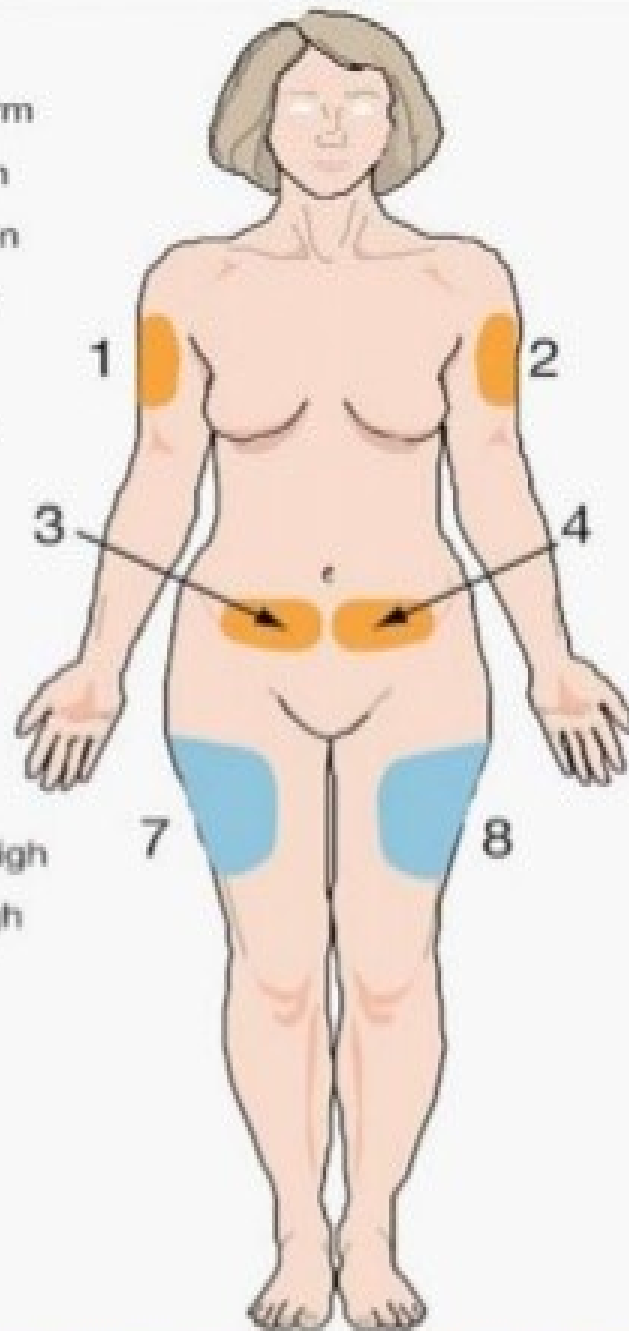
4 Left abdomen

5 Left buttock

6 Right buttock

7 Right lower thigh

8 Left lower thigh



Thank you