

Tikrit University

College of Nursing

Clinical Nursing Sciences



Third [REDACTED] Year - 2023-2024

Child Health Nursing



Diabetes Mellitus Part 1

by:

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Diabetes Mellitus

Etiology

1. Genetic predisposition
2. Autoimmune Islet cell Antibodies
3. Environmental **viral infection** (Mumps, Measles, Rubella, EBV)

DM

1. DM is a chronic disorder of metabolism (Hyperglycemia and insulin resistance)
2. Occur at any age, but 40% of them (10-14 years old) and (60% are 15-19 years old).
3. Girls are more likely to develop type 2 diabetes than boys
4. DM classified according to the type of treatment needed.
5. Insulin-dependent diabetes mellitus (IDDM), or type I,
6. Non-insulin-dependent diabetes mellitus (NIDDM), or type II.

Type 1 Diabetes Mellitus Defining Characteristics

- Polyphagia
- Polyuria
- Polydipsia
- Weight loss
- Enuresis or nocturia
- Irritability; “not himself” or “not herself”
- Shortened attention span
- Lowered frustration tolerance
- Fatigue
- Dry skin
- Blurred vision
- Poor wound healing
- Flushed skin
- Headache
- Frequent infections

Insulin Types

4 types of insulin, based on following criteria: **onset**, **peak time**, **duration**, **person responds to insulin**

Rapid-acting insulin (e.g., NovoLog)

1. reaches the blood within 15 minutes after injection.
2. peaks 30 to 90 minutes later
3. Last as long as 5 hours.

Short-acting (regular) insulin (e.g., NovolinR)

1. reaches blood within 30 minutes after injection.
2. Peaks 2 to 4 hours later
3. stays in the blood for about 4 to 8 hours.

Intermediate-acting insulin(e.g., NovolinN)

1. reach the blood 2 to 6 hours after injection.
2. peak 4 to 14 hours later and
3. stay in the blood for about 14 to 20 hours.

Long-acting insulin (e.g., Lantus)

1. Works after 6-14 hours
2. Has no peak or a very small peak 10 to 16 hours after injection.
3. Last 20-24 hours.

Some insulins come mixed together (e.g., Novolin70/30). mixed in one bottle

Nursing management

1. Nutritional modification
2. Regular exercise
3. Regular glucose monitoring
4. Drug therapy
5. Client education

Management of the child with type 1 DM consists of a multidisciplinary approach

Insulin (cornerstone)

Daily insulin is administered subcutaneously by

1. Twice-daily injections,
2. Multiple-dose injections,
3. Insulin infusion pump (electromechanical device designed to deliver fixed amounts of regular insulin continuously)

Daily monitoring of Plasma blood glucose, hemoglobin A1C, Urine testing for glucose

Nutrition

1. Children with diabetes need no special foods or supplements.
2. Sufficient calories to balance daily expenditure for energy
3. Satisfy the requirement for growth and development.
4. Timing of food must be regulated to correspond to timing and action of insulin prescribed

Exercise is encouraged and never restricted unless indicated by other health conditions.

Episodes of **hypoglycemia are occur**.. If signs are recognized earlier managed by appropriate therapy.

Nursing Care Management

Keep DM controlled

1. Periodic assessment & adjustment of
2. Insulin,
3. Diet,
4. Activity as needed under the supervision of a practitioner.

Symptoms of Diabetes



Increased thirst.



Slow-healing cuts and sores.



Fatigue.



Blurred vision.

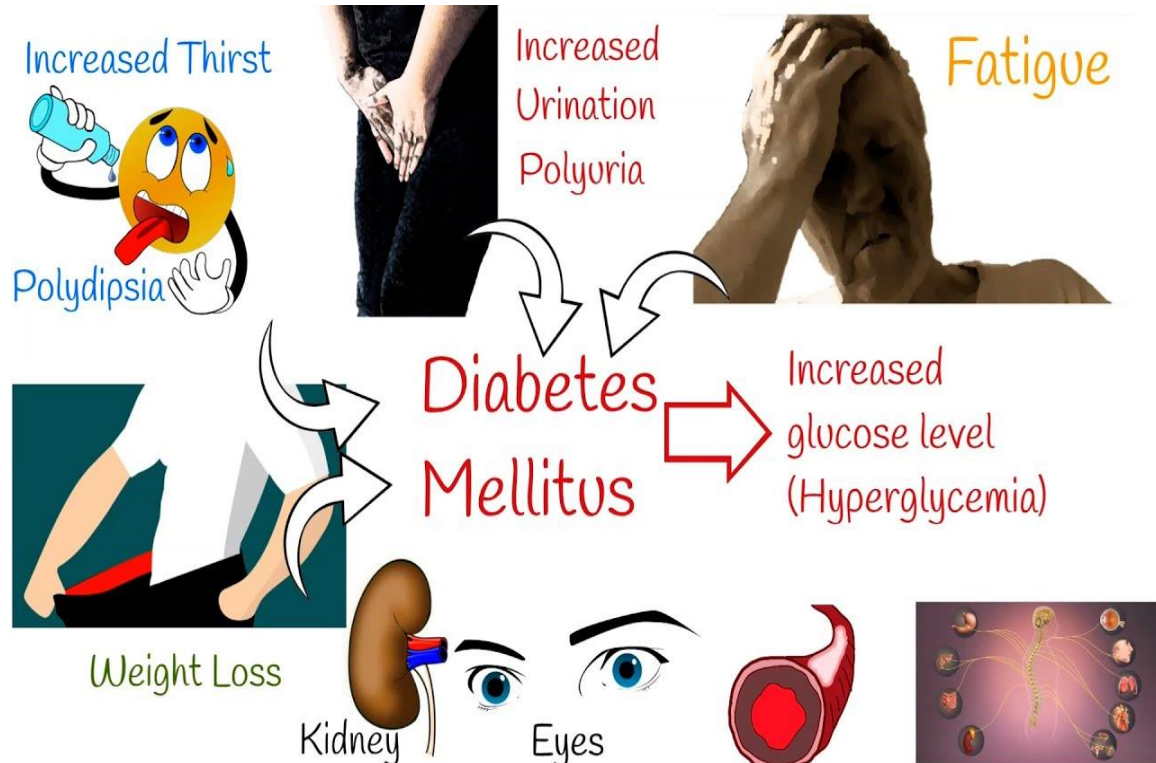


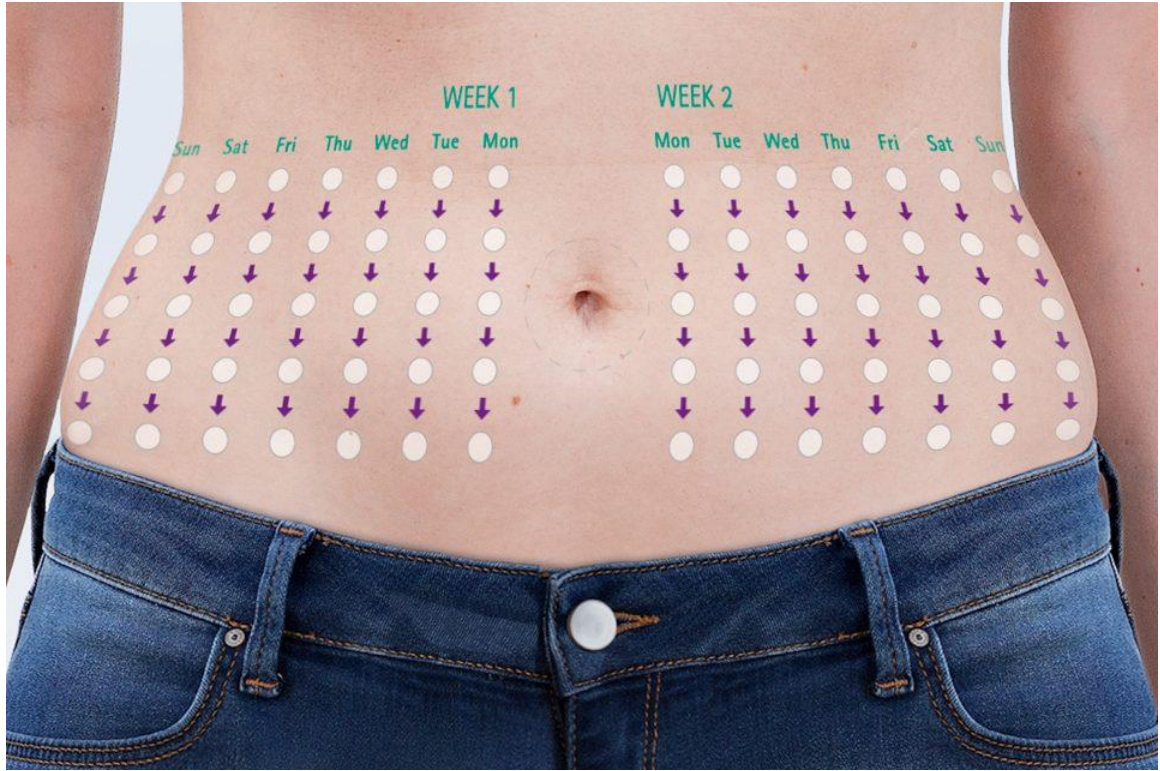
Frequent urination.

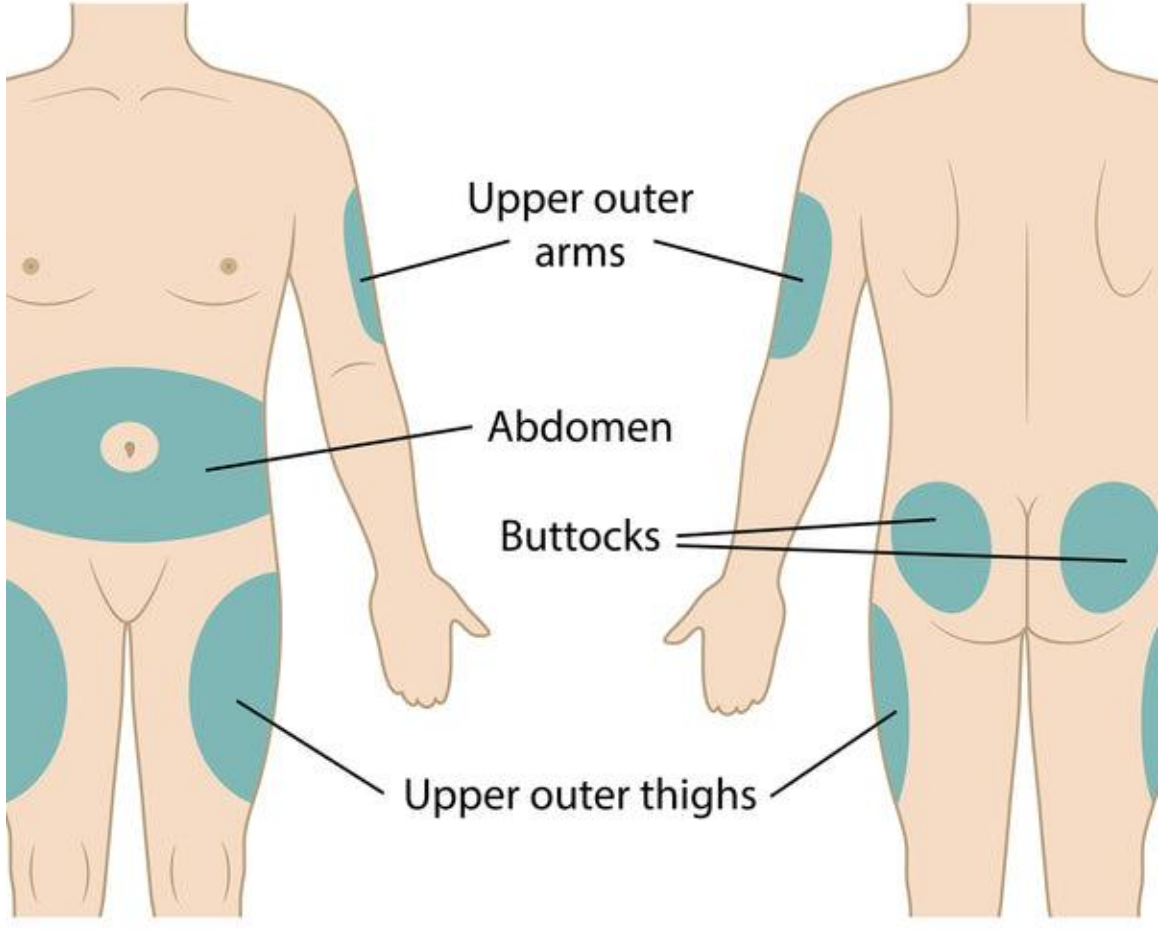


Unexplained weight loss.

 Cleveland Clinic







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