

1. Classic clinical manifestations of diabetes include polyuria, polydipsia, and **polyphagia**.
2. The three main clinical features of diabetic ketoacidosis are hyperglycemia, dehydration with electrolyte loss, and **metabolic acidosis**.
3. What are the different types of insulins? Please give examples for each category.
 - Rapid-acting – NovoLog, Humalog, Apirdra
 - Short-acting (Regular)
 - U100 – Humulin-R, Novolin-R
 - U-500 – Humulin R U-500
 - Intermediate-acting (NPH) – Humulin N, Novolin N
 - Long-acting – Levemir, Lantus, Toujeo
 - Pre-Mixed Insulins – combo of intermediate & short-acting insulin
 - Humulin 70/30
 - Novolin 70/30
 - Novolog 70/30
 - Humulin 50/50
 - Humalog 75/25
4. What type of insulin can be given via intravenously? **Regular Insulin**
5. A nurse is caring for a client who has syndrome of inappropriate antidiuretic hormone (SIADH). Which of the following findings should the nurse expect? (Select all that apply)
 - a. **Decreased blood sodium**
 - b. Urine specific gravity 1.001
 - c. **Blood osmolarity 230 mOsm/L**
 - d. Polyuria
 - e. Increased thirst
6. What is the difference between DKA and HHS?
 - **DKA** – No insulin is present & this promotes the breakdown of stored glucose, protein, and fat, which leads to the production of ketone bodies and ketoacidosis
 - **HHS** – The insulin level is too low to prevent hyperglycemia (and subsequent osmotic diuresis), but it is high enough to prevent fat breakdown
7. A nurse is reviewing laboratory results for a client who has Addison's disease. Which of the following laboratory results should the nurse expect for this client? (Select all that apply)
 - a. **Sodium 130 mEq/L**
 - b. **Potassium 6.1 mEq/L**
 - c. **Calcium 11.6 mg/dL**
 - d. **Blood urea nitrogen (BUN) 28 mg/dL**
 - e. Fasting blood glucose 148 mg/dL
8. What are treatments utilized in hypoglycemia (for both conscious and unconscious patients)?

- **Conscious** – commercially prepared glucose tablets; 6-10 life savers/hard candy; 4 tsp of sugar; 4 sugar cubes; 1 tbsp of honey/syrup; ½ cup of fruit/regular soft drink; 8 oz of low fat milk; 6 saltine crackers; 3 graham crackers
- **Unconscious** – Administer Glucagon SQ/IM or IV 50% Dextrose

9. Describe in your own words what Pheochromocytoma is.

- Pheochromocytoma is a rare tumor that starts in the cells of one of the adrenal glands and often cause the adrenal gland to make too many hormones.

10. For the following disorders, please describe the hormone affected and indicate if it is increased or decreased. Then describe what those hormones are responsible for.

- **Cushing's Disease/Syndrome** – Over secretion of cortisol. Cortisol helps regulate BP, reduces inflammation, and keeps the heart and blood vessels functioning normally.
- **Addison Disease/Addisonian Crisis** – Cortisol insufficiency. Cortisol helps regulate BP, reduces inflammation, and keeps the heart and blood vessels functioning normally.
- **SIADH** – Excessive release of ADH. ADH helps control BP by acting on the kidneys and the blood vessels. Its most important role is to conserve the fluid volume of the body by reducing the amount of water passed out in the urine.
- **Diabetes Insipidus** – Deficiency of ADH. ADH helps control BP by acting on the kidneys and the blood vessels. Its most important role is to conserve the fluid volume of the body by reducing the amount of water passed out in the urine.
- **Thyroid Storm/Crisis** – Sudden surge of large amounts of thyroid hormones into the bloodstream. Thyroid hormones regulate the body's metabolic rate controlling heart, muscle, digestive function, brain development and bone maintenance.
- **Myxedema Coma** – Persistently low thyroid production. Sudden surge of large amounts of thyroid hormones into the bloodstream. Thyroid hormones regulate the body's metabolic rate controlling heart, muscle, digestive function, brain development and bone maintenance.