

Hypernatremia

Hyper: “excessive”

Natr: Prefix for Sodium

Emia: blood

Meaning of Hypernatremia: excessive sodium in the blood [isotonic, hypotonic, and hypertonic tonicity](#).

Normal sodium levels: **134 to 145 mEq/L** (>145 sodium is hypernatremic)

Hypernatremia is a water problem rather than a sodium problem. This is because when the body collects sodium it causes a lot of water retention and this is what causes the patient problems.

Role of sodium in the body: It’s an important electrolyte that helps regulate the amount of water inside and outside of the cell (water and sodium loves each other).

Where ever sodium goes, so does water. Watch my video on [hypotonic, hypertonic, and isotonic tonicity](#).

For example, in **hypernatremia** there is a lot of sodium outside the cell and this attracts the water from inside the cell which will cause water to move outside the cell and dehydrate the cell. Sodium also plays a role in muscle, nerves, and organ function.

Causes of Hypernatremia

Remember the phrase “**HIGH SALT**”

Hypercortisolism (Cushing’s Syndrome), hyperventilation

Increased intake of sodium (oral or IV route)

GI feeding (tube) without adequate water supplements

Hypertonic solutions

Sodium excretion decreased (body keeping too much sodium) and corticosteroids

Aldosterone insufficiency (Hyperaldosteronism)

Loss of fluids (dehydrated) infection (fever), sweating, diarrhea, and diabetes insipidus

Thirst impairment

Signs & Symptoms of Hypernatremia

Remember: “No **FRIED** foods for you!” (too much salt)

Fever, flushed skin

Restless, really agitated

Increased fluid retention

Edema, extremely confused

Decreased urine output, dry mouth/skin

Nursing Interventions for Hypernatremia

- **Restrict sodium intake!** Know foods high in salt such as **bacon, butter, canned food, cheese, hot dogs, lunch meat, processed food, and table salt.**
- Keep patient **safe** because they will be confused and agitated.
- Doctor may order to give isotonic or hypotonic solutions such as **0.45% NS** (which is hypotonic and most commonly used). Give hypotonic fluids slowly because brain tissue is at risk due to the shifting of fluids back into the cell (remember the cell is dehydrated with hypernatremia) and the patient is at risk for **cerebral edema**. In other words, the cell can lyse if fluids are administered too quickly.
- **Educate patient and family** about sign and symptoms of high sodium level and proper foods to eat.