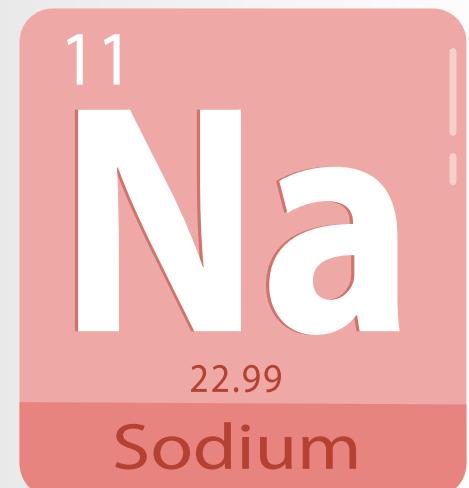


Hypernatremia ($\text{Na} > 155 \text{ meq/L}$)

- **Etiologies**

- deficit of water relative to sodium
- **Extra-renal causes**
 - GI H_2O loss
 - diarrhea or vomiting
 - Dehydration
 - Increased skin loss
 - sweating, burns, inflammatory skin conditions



- **Renal H_2O loss**

- Diabetes Insipidus
- Osmotic diuresis
 - hyperglycemia
- Loop diuretics

- **Treatment**

- Replace H_2O
- Hypotonic solution (1/2, 1/4, 1/3 NS)
- Na Overload
 - D5W + diuretic

