

Hypernatraemia
(Reference range > 155 mmol/L)

ECF

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Hypovolumic with ↓ BP
(Secondary hyperaldosteronism)

Normovolumic

Hypervolumic with ↑ BP
(Primary hyperaldosteronism)

(Renal)

(Pre-renal)

Osmotic diuresis

- 1- ↓ H₂O intake.
- 2- Skin or GI H₂O loss.
- 3- Excessive sweating.
- 4- Diarrhoea in children.

↓ ADH, Central
Diabetes Insipidus

↑ ADH, Nephrogenic
Diabetes Insipidus

↑Li

↑Ca

↓K

[Na] > 150 mmol/L

- ↑ Aldosterone.
- ↑ Steroid.
- Cushing's syndrome.
- Conn's syndrome.
- Exogenous NaCl infusion
- Excess Mineralocorticoids

Pituitary damage.
(Posterior)
Trauma-hemorrhage
Tumor-infection

- 1- Post-receptor binding events disorder.
- 2- Kidney tubular cell unresponsiveness.

1. *Test ADH in serum*
2. *Water Deprivation T (If 50% osmolality of urine is corrected)*
3. *ADH analogue test*

(↓ K⁺ or H⁺)

&

(↑ TCO₂)

- Polyuria = excessive water loss in urine
- Polydipsia = excessive thirst
- Diluted urine = low urine osmolality (275-300)
- Weight lost = 60% of our body weight are water
- ↑ plasma Osmolality

Na⁺ and H₂O depletion is more in the body