

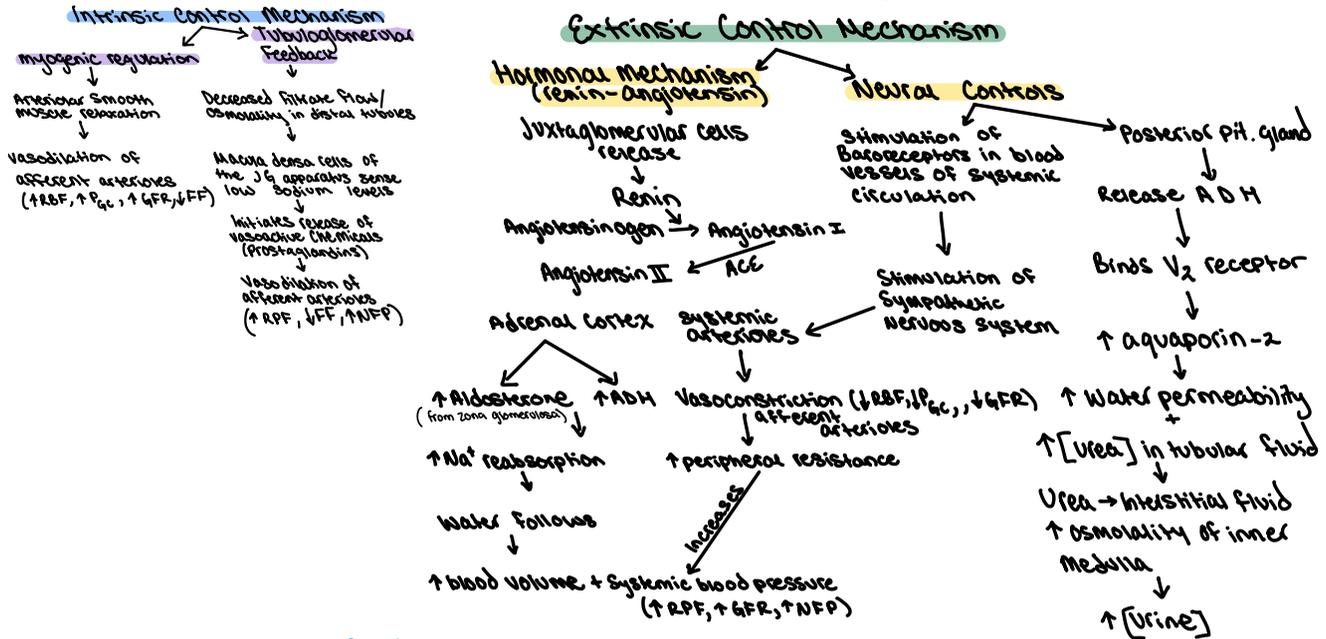
Frodo 10kg → Hemorrhage ↓ ECF volume ↓ MAP ↓ Rt atrial pressure

Hemorrhage

loss of blood volume ↓ Blood Pressure

Blood is shunted away from the kidneys to avoid body tissue necrosis

LOW blood pressure in the renal blood vessels



Administer 2L 0.9% NaCl over 10 min

Blood + Plasma volume ↑ and expansion of ECF volume, small ↑ ECF osmolality

↑ right atrial pressure and ↑ mean arterial pressure
↓ (↑ GFR, ↑ NFP +/- NFP)

Baroreceptors detect ↑ MAP

↓ Renin release from juxtaglomerular granular cells

↓ Angiotensin II

↓ Aldosterone release from the zona glomerulosa

↓ reabsorption of sodium and water → ↓ K⁺ excretion
↑ urinary excretion of sodium

↓ Vasoconstriction

↓ P_{GC}
↓ GFR and NFP

Water moves from intracellular compartment to extracellular compartment to balance osmotic pressure

Once osmolality has been returned to normal, ADH secretion ↓

↓ Water reabsorption and inner medullary collecting duct is less permeable to urea

↓ urea reabsorption ↑ urine production