

Summary

Short-term BP regulation:

Regulation Method	Sensitive to	Mechanism (& vice versa)
Baroreceptor reflex * 9 th cranial N. * 10 th cranial N.	BP changes	HIGH BP -> arterial + venous vasodilation (LOW TPR, LOW CO, respectively), inhibition of cardio-acceleratory centre (LOW HR) -> LOWERS BP 
Low pressure receptors 1. Atrial-hypothalamic reflex	VOLUME changes	HIGH BP -> No ADH release -> LOW ECF volume + LOW TPR -> LOWERS BP ↓ADH → ↓BP
Low pressure receptors 2. Atrio-renal reflex	VOLUME changes	HIGH VOLUME -> dilation of afferent renal arterioles -> HIGH GFR -> HIGH urine -> LOWERS VOLUME -> LOWERS BP ↑GFR → ↑urine → ↓volume → ↓BP
Carotid and Aortic Chemoreceptors * function below 80mmHg (after baroreceptor reflex)	Gas content LOW O2 mainly, HIGH H+, HIGH CO2	HIGH BP -> LOW BF -> LOW O2, HIGH CO2, HIGH H+ -> INHIBITION OF VMC -> INHIBITION OF sympathetic activity -> LOWERS BP ↑BP → ↑BF → ↑O ₂ → ⊖VMC → ↓BP