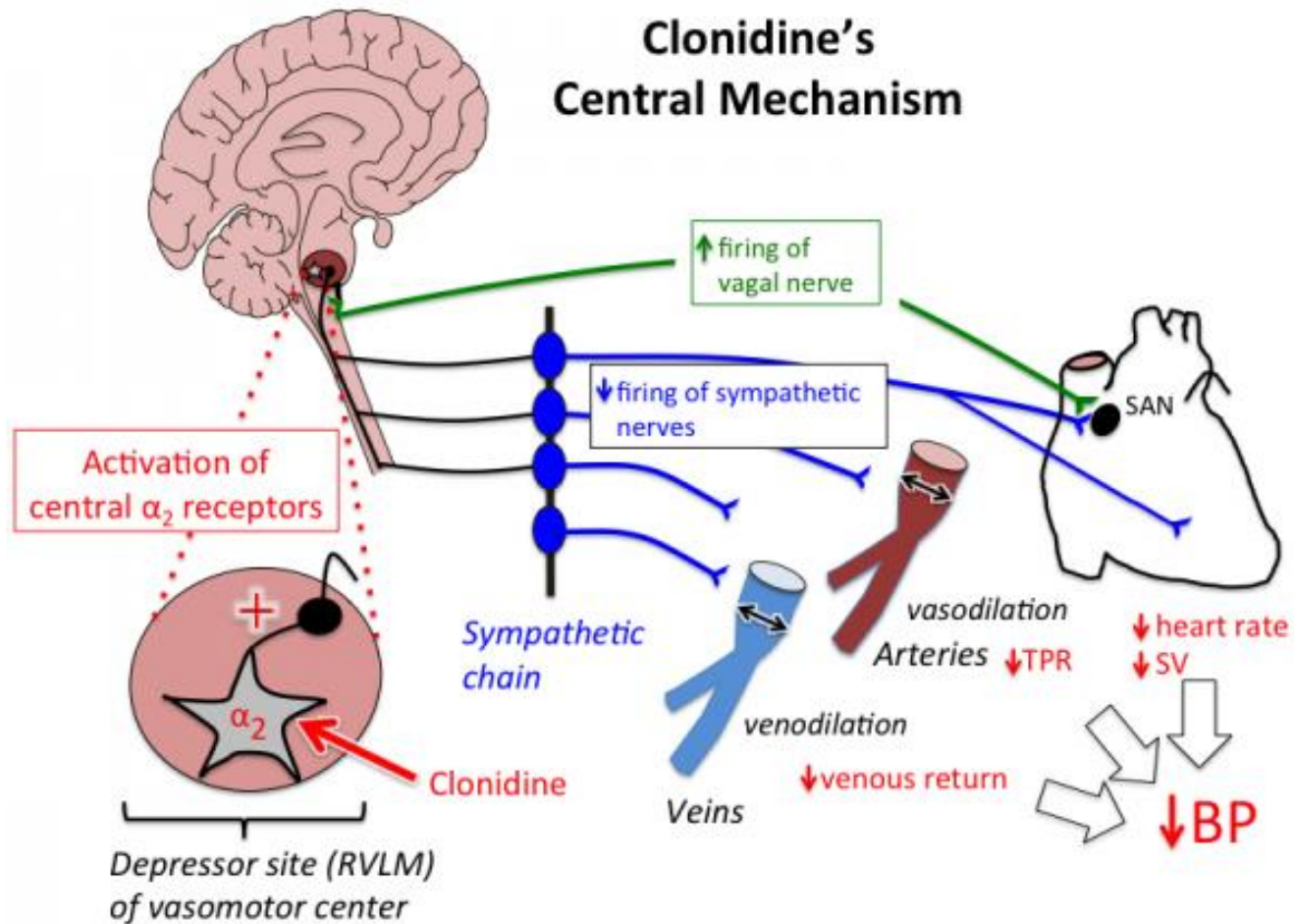


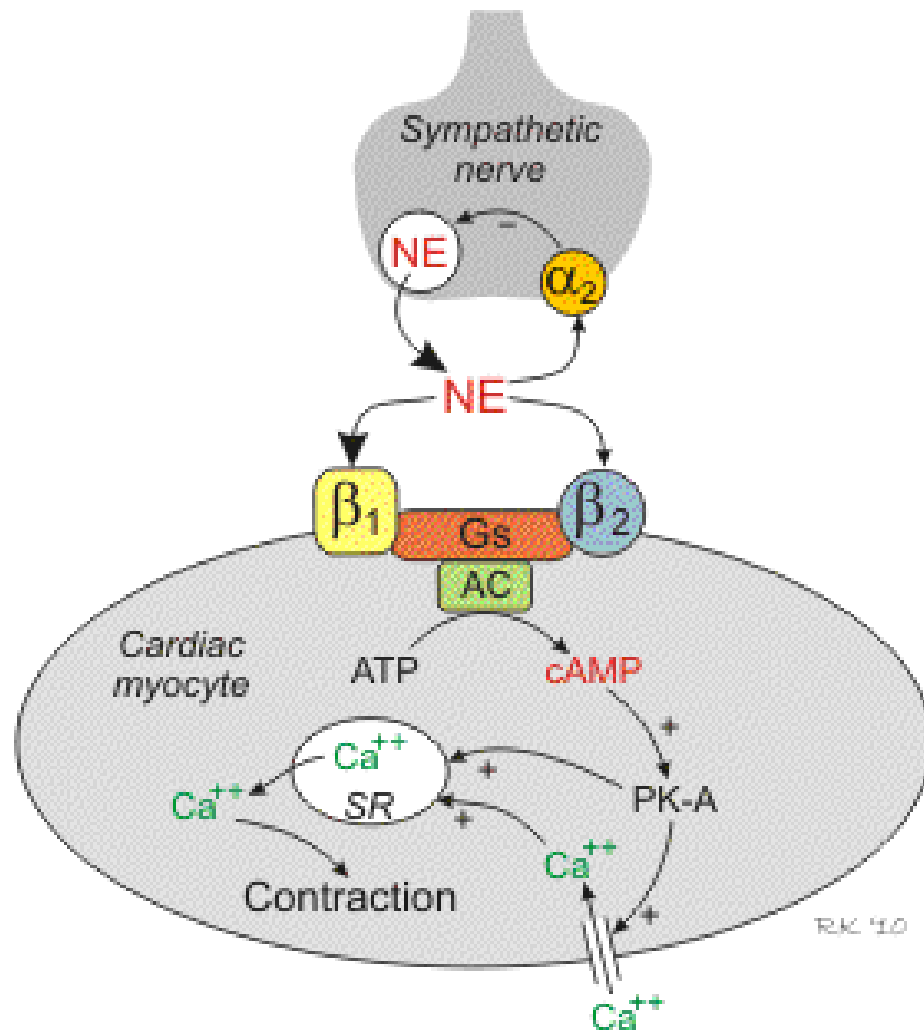
CLONIDINE- BETA BLOCKERS INTERACTION

SENA GÜLBAHAR-I6030156





CLONIDINE STIMULATES ALPHA-ADRENOCEPTORS IN THE BRAIN STEM. THIS ACTION RESULTS IN REDUCED SYMPATHETIC OUTFLOW FROM THE CENTRAL NERVOUS SYSTEM AND DECREASES IN PERIPHERAL RESISTANCE, RENAL VASCULAR RESISTANCE, HEART RATE, AND BLOOD PRESSURE.



Abbreviations: NE, norepinephrine; Gs, G-stimulatory protein; AC, adenylyl cyclase; PK-A, cAMP-dependent protein kinase; SR, sarcoplasmic reticulum

BETA BLOCKERS WORK BY BLOCKING THE EFFECTS OF THE HORMONE EPINEPHRINE. BETA BLOCKERS CAUSE THE HEART TO BEAT MORE SLOWLY AND WITH LESS FORCE, WHICH LOWERS BLOOD PRESSURE. BETA BLOCKERS ALSO HELP WIDEN VEINS AND ARTERIES TO IMPROVE BLOOD FLOW.

DRUG-DRUG INTERACTIONS BETWEEN CLONIDINE AND BETA BLOCKERS:

- Basically these two medicines are taken together to help lower your blood pressure. Clonidine in combination either with propranolol or atenolol had a distinct antihypertensive effect (R. Vanholder, N. Lameire, S. Ringoir *European Journal of Clinical Pharmacology* (1985)).
- Using propranolol and clonidine together may lower your blood pressure and slow your heart rate more than wanted since both drug uses for the same effect. Using these medications together can cause a slow heartbeat, headaches, dizziness, or feeling like you might pass out.

REFERENCES:

- R.Vanholder, N. Lameire, S. Ringoir *European Journal of Clinical Pharmacology*(1985)
- <https://www.rxlist.com/jenloga-drug.htm>
- <https://www.drugs.com/drug-interactions/clonidine-with-propranolol-704-0-1956-0.html>