

B&L[6]

Figure 18-26 Anterior view of the aortic arch showing the innervation of the aortic bodies and baroreceptors. (Modified from Nonidez JF: Anat Rec 69:299, 1937.)

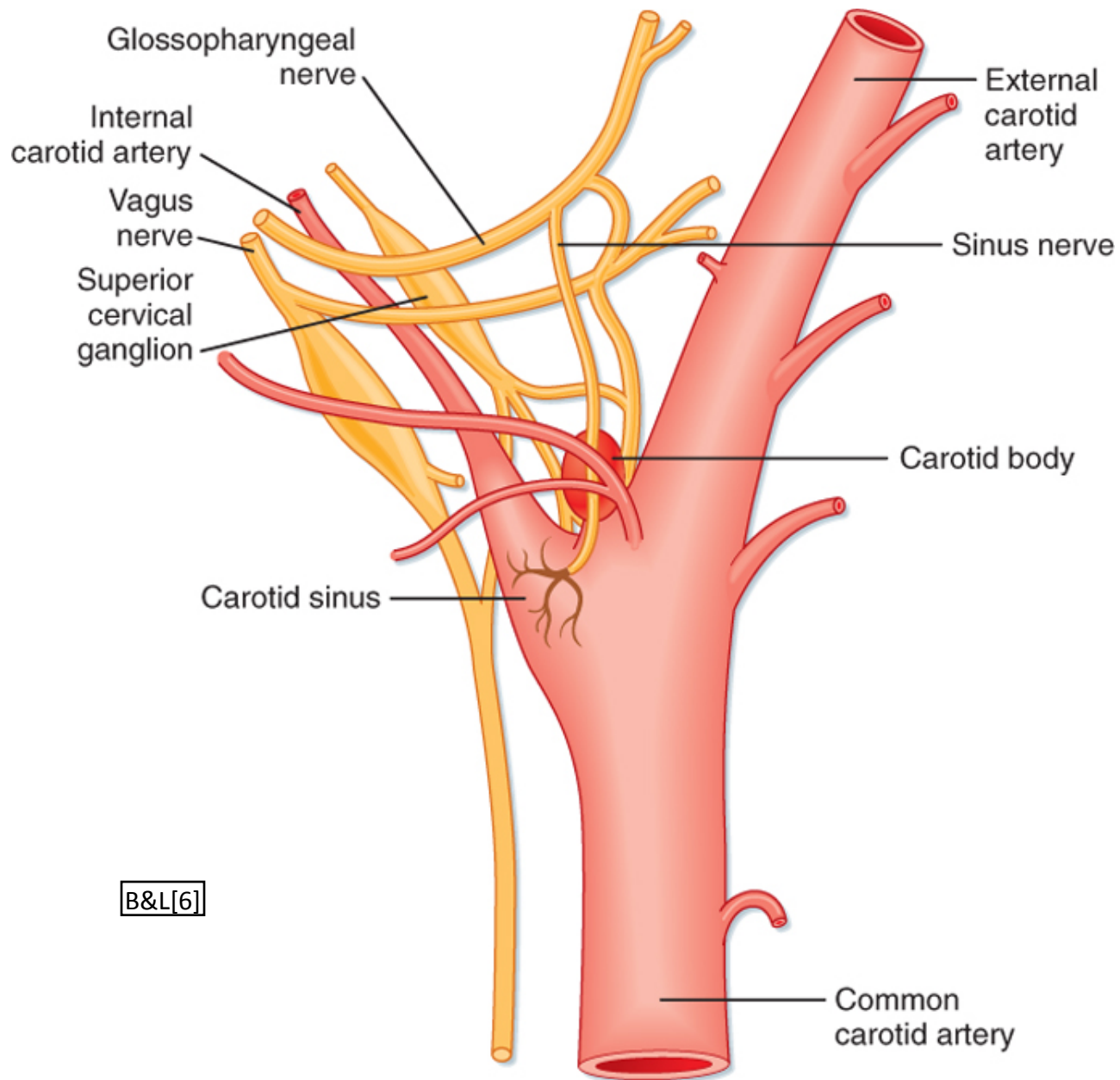
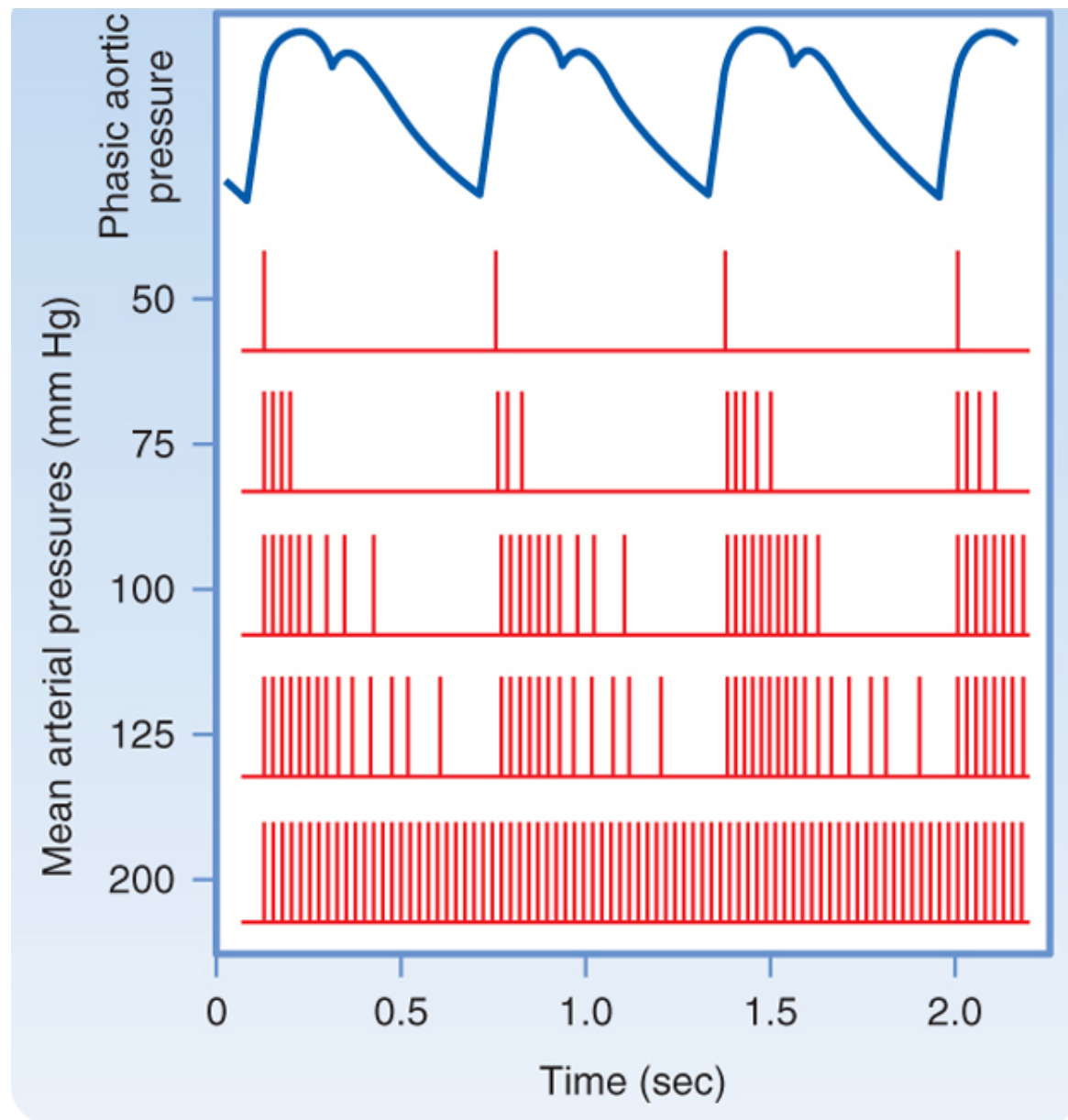
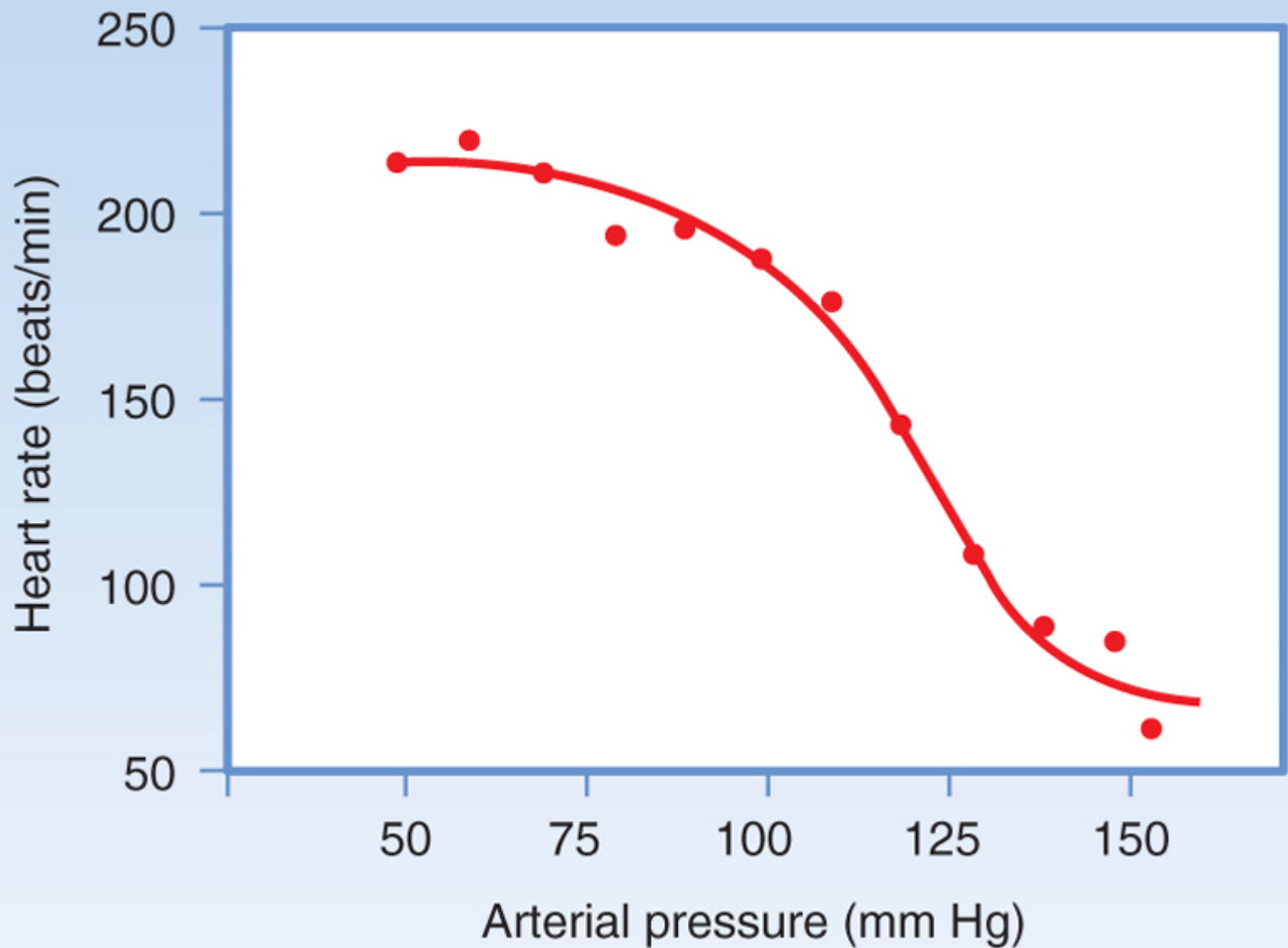


Figure 18-25 Diagrammatic representation of the carotid sinus and carotid body and their innervation. (Redrawn from Adams WE: The Comparative Morphology of the Carotid Body and Carotid Sinus. Springfield, IL, Charles C Thomas, 1958.)



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Figure 18-27 Relationship of phasic aortic blood pressure in the firing of a single afferent nerve fiber from the carotid sinus at different levels of mean arterial pressure.



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Figure 18-4 Heart rate as a function of mean arterial pressure.

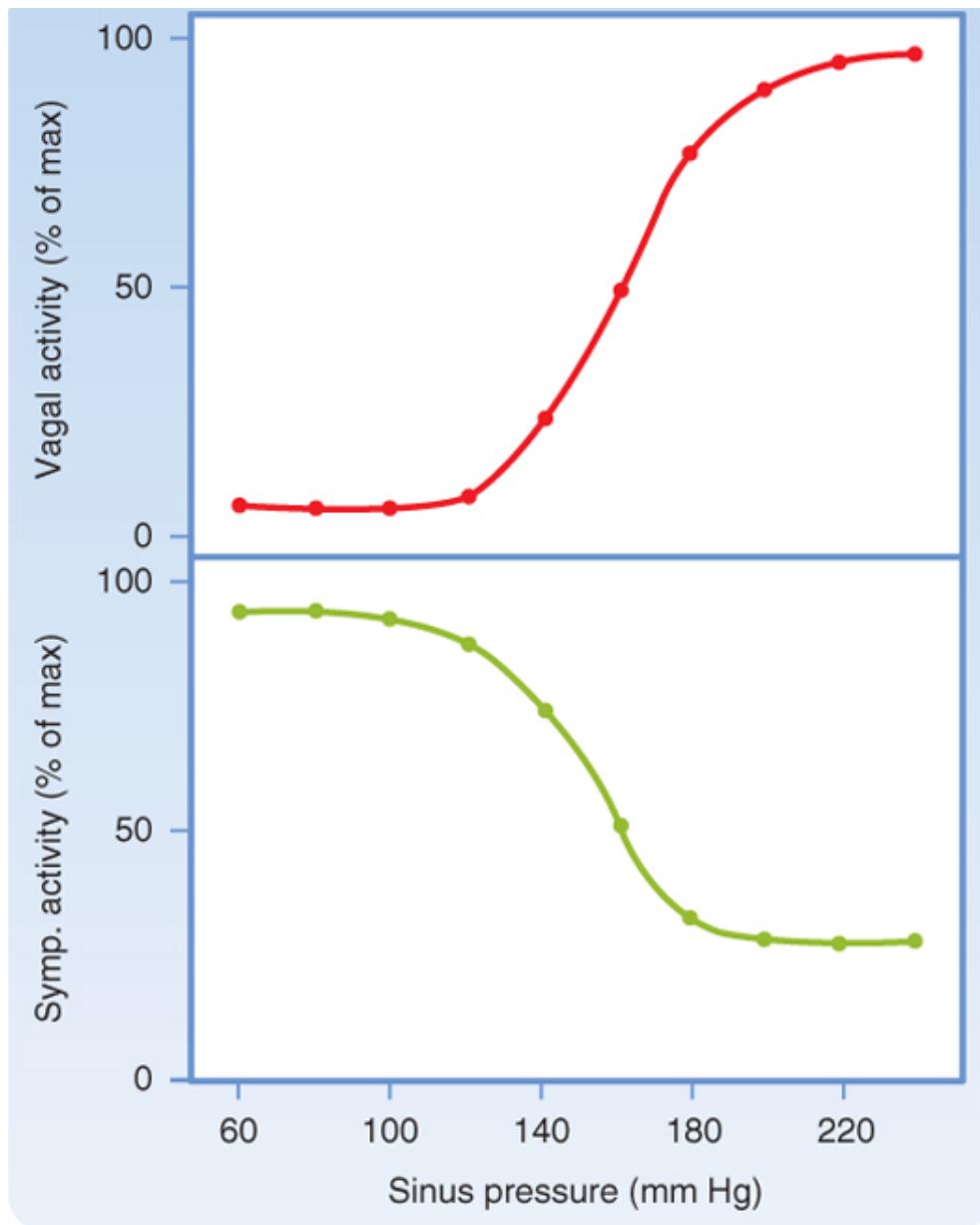
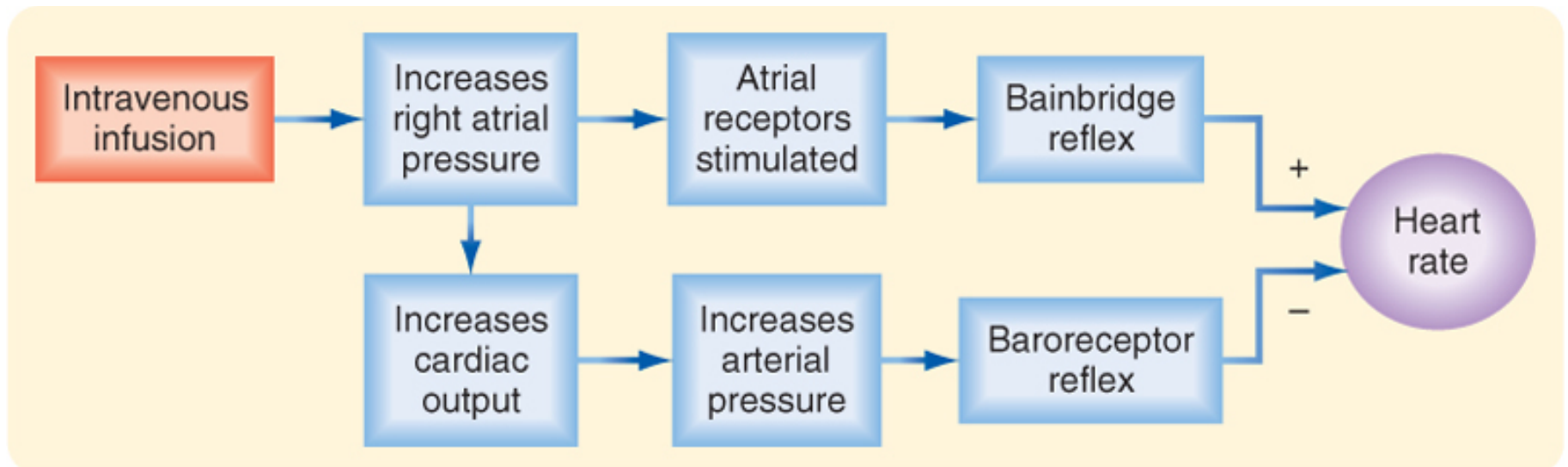


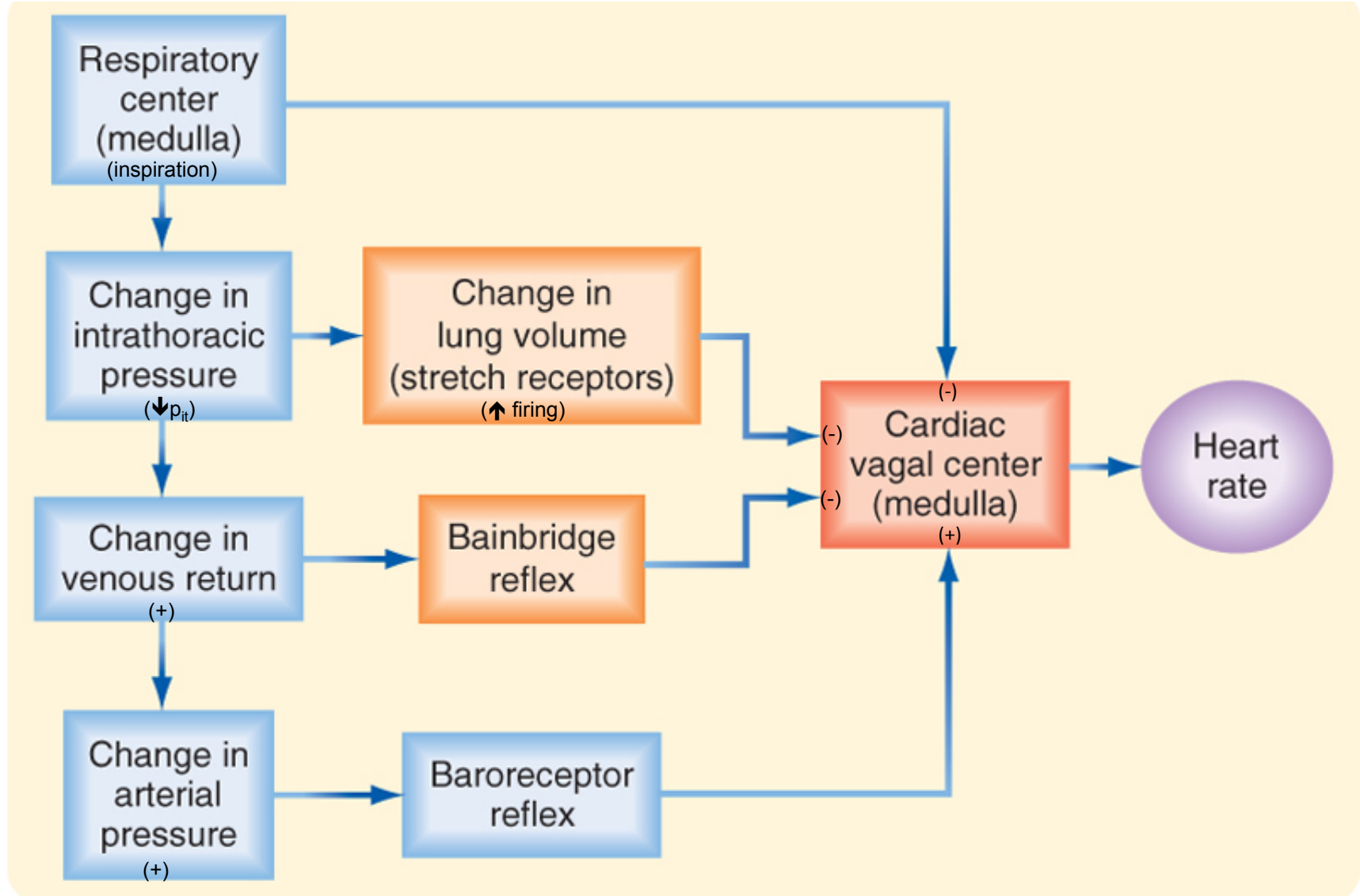
Figure 18-5 Effects of changes in pressure in isolated carotid sinuses on neural activity in cardiac vagal and sympathetic efferent nerve fibers. (Adapted from Kollai M, Koizumi K: Pflügers Arch 413:365, 1989.)

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Figure 18-6 Intravenous infusions of blood or electrolyte solutions tend to increase the heart rate via the Bainbridge reflex and to decrease the heart rate via the baroreceptor reflex. The actual change in heart rate induced by such infusions is the result of these two opposing effects.



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Figure 18-8 Respiratory sinus arrhythmia is generated by a direct interaction between the respiratory and cardiac centers in the medulla, as well as by reflexes that originate from stretch receptors in the lungs, stretch receptors in the right atrium (the Bainbridge reflex), and baroreceptors in the carotid sinuses and aortic arch.

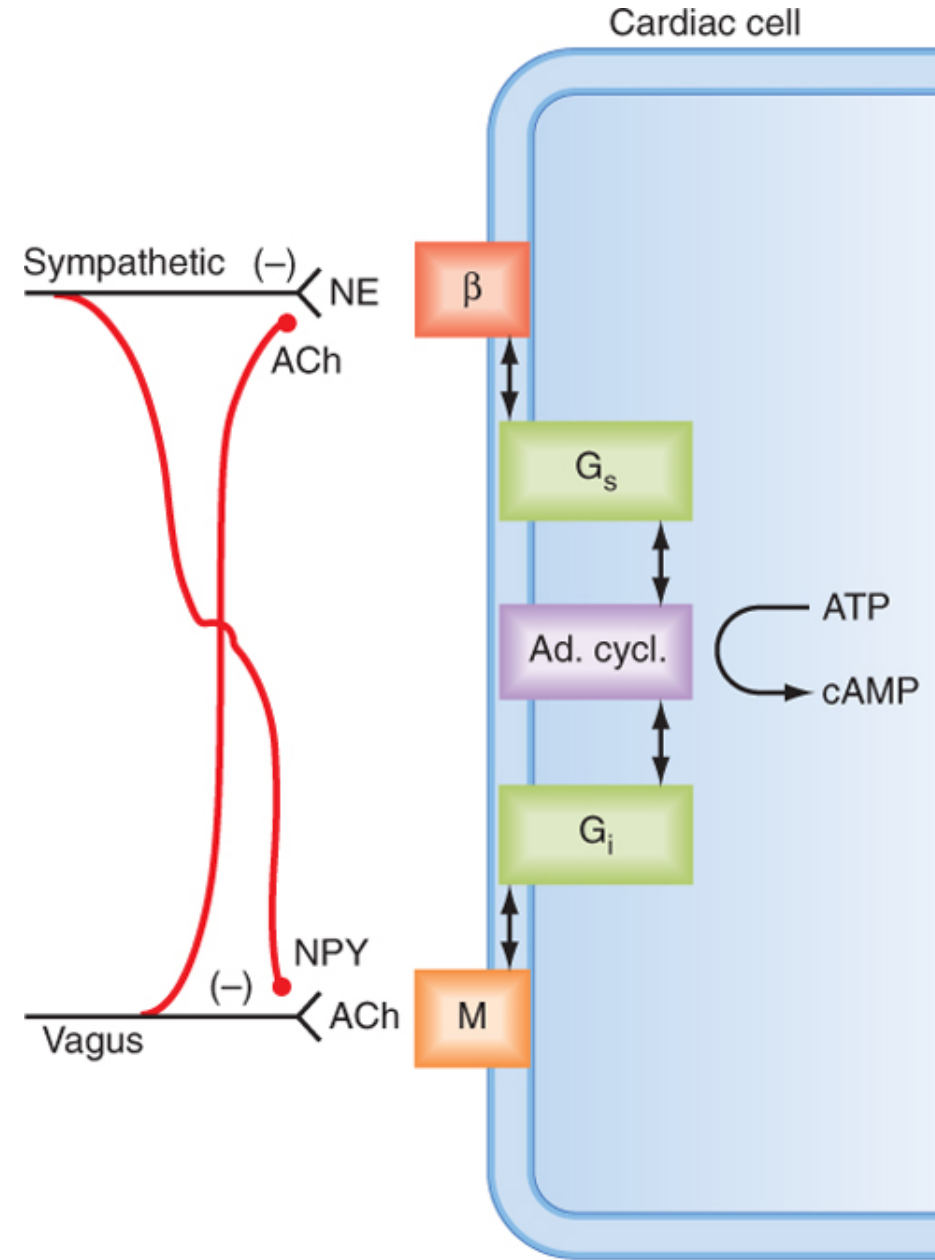


Figure 18-19 Interneuronal and intracellular mechanisms responsible for interactions between the sympathetic and parasympathetic systems in the neural control of cardiac function. ACh, acetylcholine; Ad cycl, adenylyl cyclase; β , β -adrenergic receptor; G_s and G_i , stimulatory and inhibitory G proteins; M, muscarinic receptor; NE, norepinephrine; NPY, neuropeptide Y. (From Levy MN: In Kulbertus HE, Franck G [eds]: Neurocardiology. Mt. Kisco, NY, Futura, 1988.)

END

Video 3, Module 9