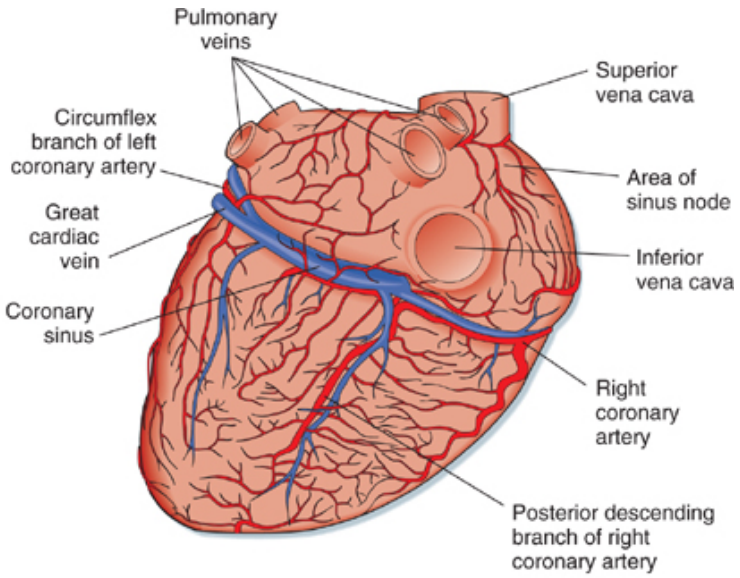
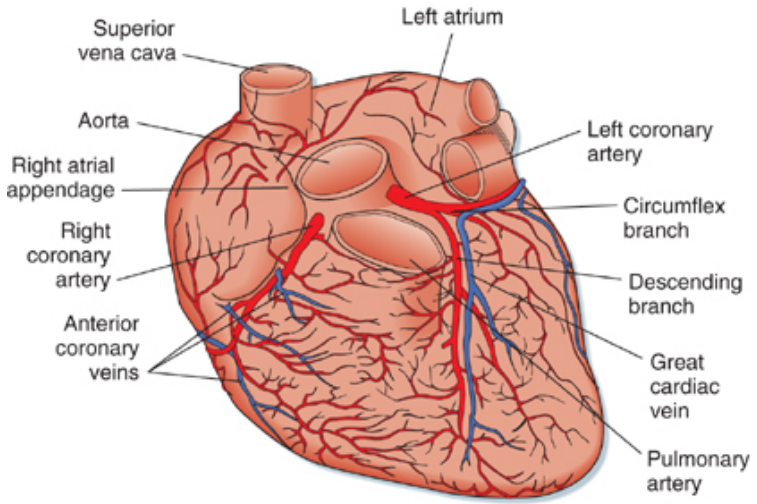
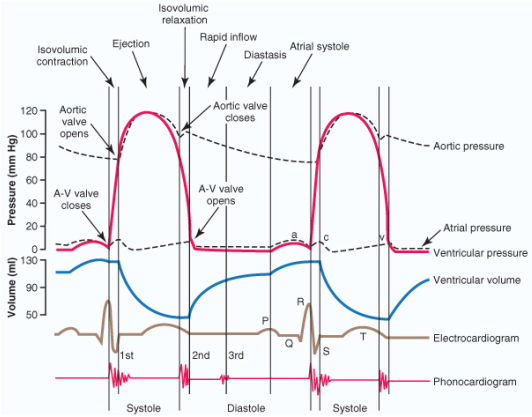
B&L[6] 17-31



POSTERIOR VIEW



ANTERIOR VIEW



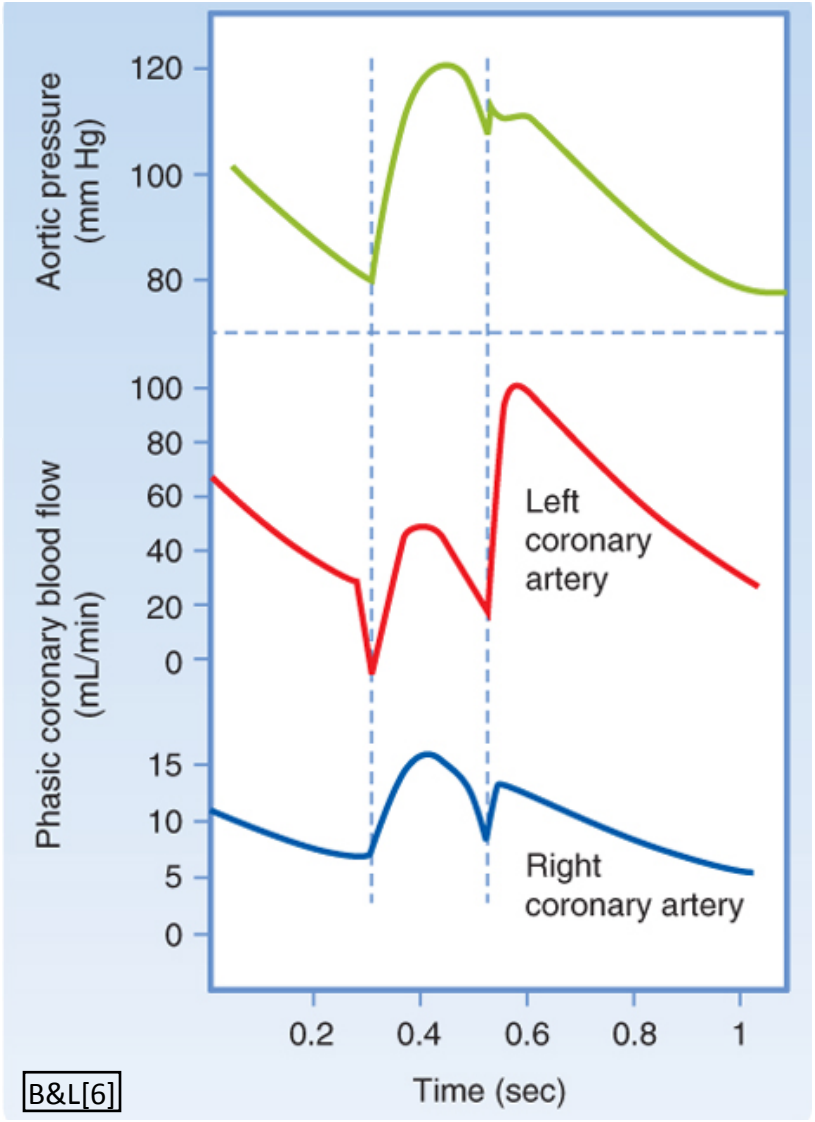


Figure 17-33 Comparison of phasic coronary blood flow in the left and right coronary arteries. Extravascular compression is so great during early ventricular systole that blood flow in the large coronary arteries supplying the left ventricle is briefly reversed. Maximal left coronary inflow occurs in early diastole, when the ventricles have relaxed and extravascular compression of the coronary vessels is virtually absent. After an initial reversal in early systole, left coronary blood flow follows the aortic pressure until early diastole, when it rises abruptly and then declines slowly as aortic pressure falls during the remainder of diastole.

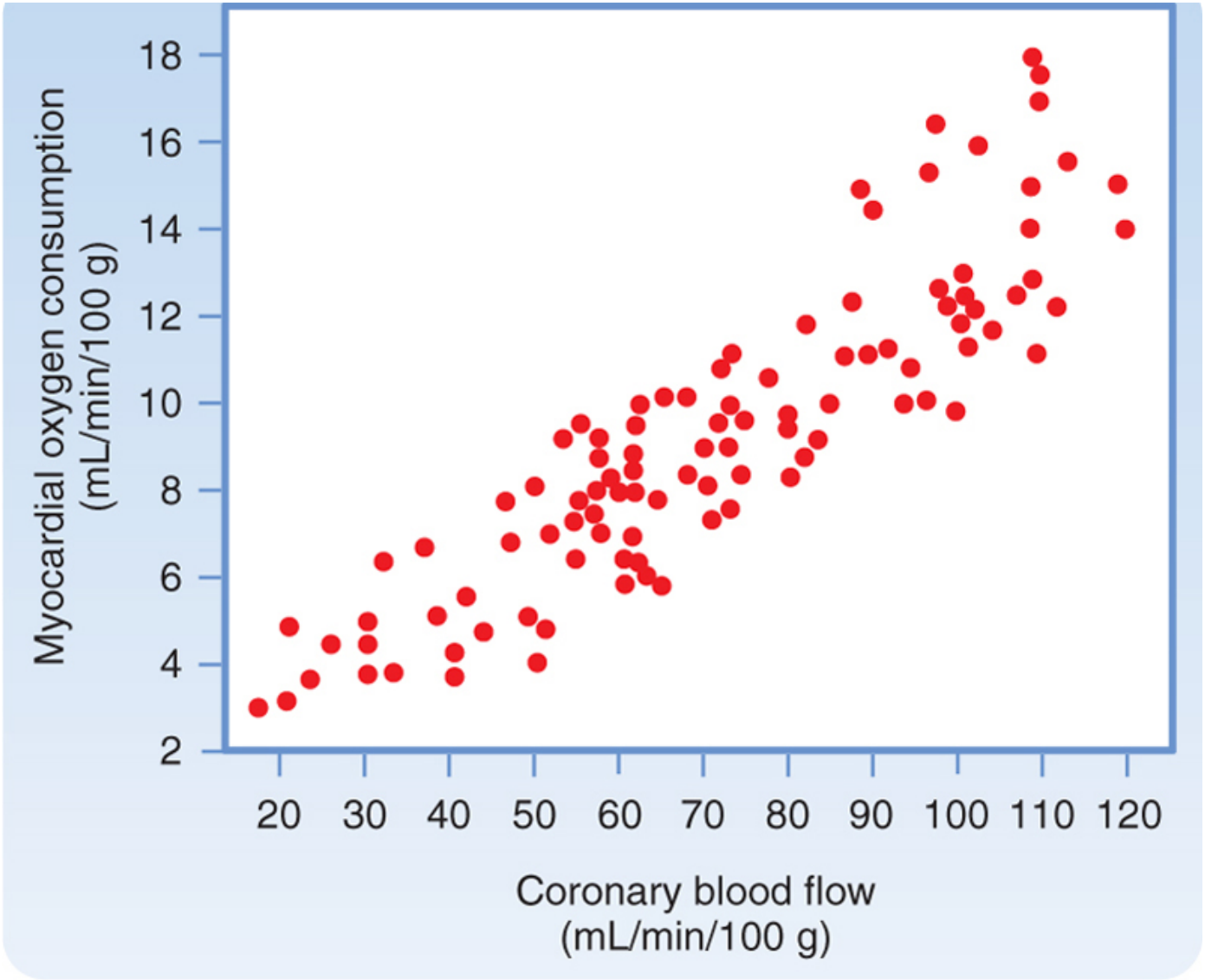


Figure 17-35 Relationship between myocardial O2 consumption and coronary blood flow during a variety of interventions that increase or decrease the myocardial metabolic rate. (From Berne RM, Rubio R: Coronary circulation. In Handbook of Physiology (sect 2): The Cardiovascular System: The Heart, vol 1. Bethesda, MD, American Physiological Society, 1979.)

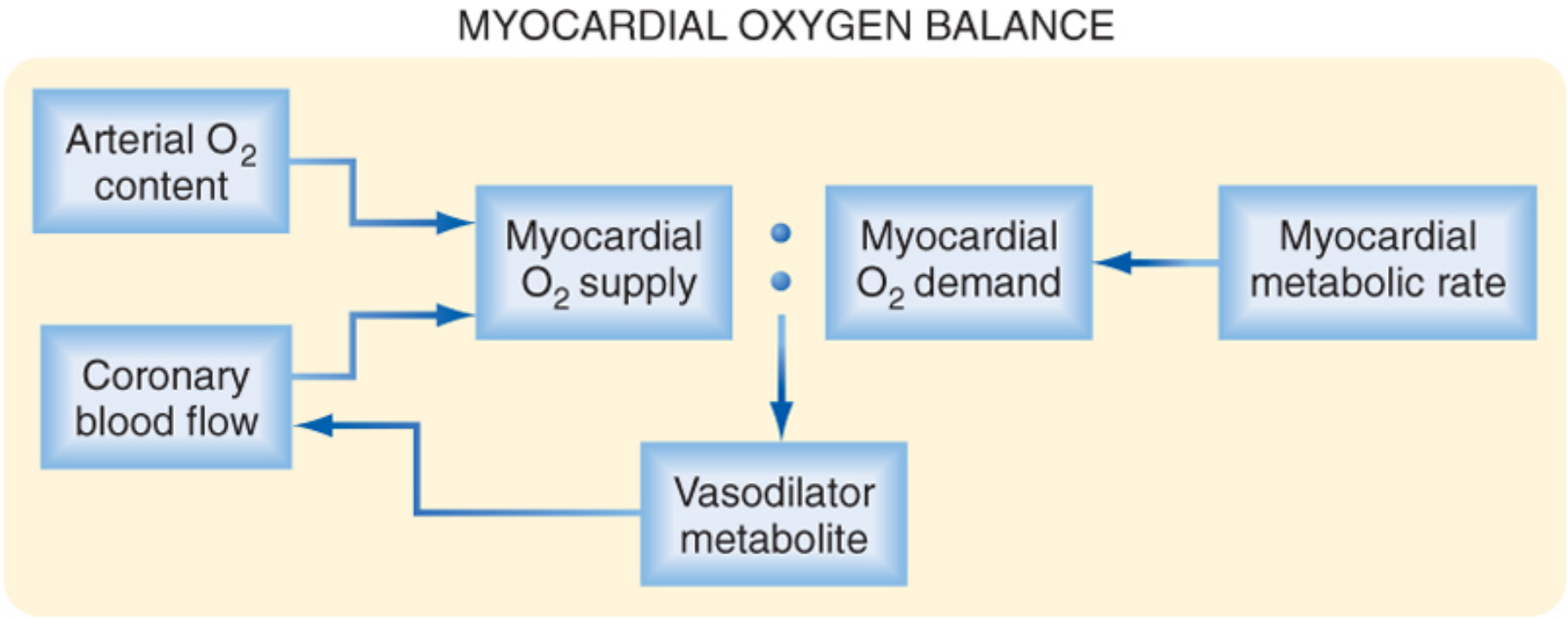


Figure 17-36 Imbalance in the O_2 supply-O_2 demand ratio alters coronary blood flow by the rate of release of a vasodilator metabolite from cardiomyocytes. A decrease in the ratio elicits an increase in vasodilator release, whereas an increase in the ratio has the opposite effect.

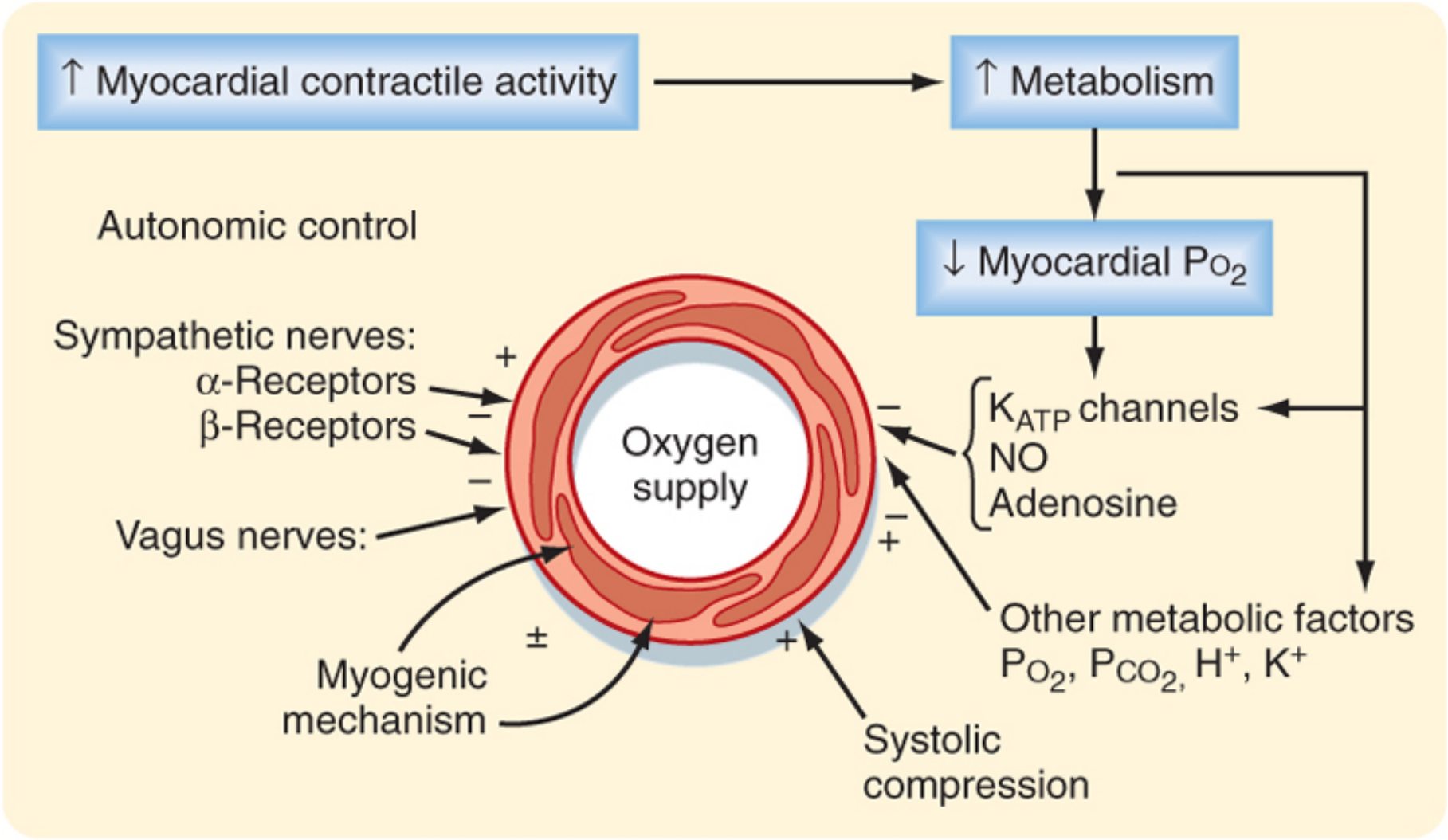


Figure 17-37 Schematic representation of factors that increase (+) or decrease (-) coronary vascular resistance. Intravascular pressure (arterial blood pressure) stretches the vessel wall.

END

Video 6, Module 8