Topic: Effect of Autonomous Nervous System on Blood Vessel

Roll: ASH1703013M, ASH1703014M, BKH1703017F, ASH1703018M, ASH1703019M

Most tissues of the blood vessels except the capillaries are innervated with sympathetic nerve fibers. In blood vessels sympathetic activation constricts arteries and arterioles, which increases vascular resistance and decreases blood flow. When this occurs through the body, the increased vascular resistance causes arterial pressure to increase. Sympathetic-induced constriction of veins decreases venous compliance and blood volume and thereby increases venous pressure.

The innervation of the large vessels, particularly of the veins, make it possible for sympathetic stimulation. That decreases the volume of these vessels. This decrease in volume can push blood into the heart and thereby plays a major role in regulation of heart pumping.

Parasympathetic stimulation has almost no effects on most blood vessels.

The overall effect of sympathetic activation is to increase cardiac output, systemic vascular resistance of both arteries and veins, arterial blood pressure.