

TABLE 8 - 5 *The Effects of the Sympathetic and Parasympathetic Divisions of the ANS on Various Body Structures*

STRUCTURE	SYMPATHETIC EFFECTS	PARASYMPATHETIC EFFECTS
EYE	Dilation of pupil Focusing for distance vision	Constriction of pupil Focusing for near vision
Tear Glands	None (not innervated)	Secretion
SKIN		
Sweat glands	Increases secretion	None (not innervated)
Arrector pili muscles	Contraction, erection of hairs	None (not innervated)
CARDIOVASCULAR SYSTEM		
Blood vessels	Vasoconstriction and vasodilation	None (not innervated)
Heart	Increases heart rate, force of contraction, and blood pressure	Decreases heart rate, force of contraction, and blood pressure
ADRENAL GLANDS	Secretion of epinephrine and norepinephrine by adrenal medullae	None (not innervated)
RESPIRATORY SYSTEM		
Airways	Increases diameter	Decreases diameter
Respiratory rate	Increases rate	Decreases rate
DIGESTIVE SYSTEM		
General level of activity	Decreases activity	Increases activity
Liver	Glycogen breakdown, glucose synthesis and release	Glycogen synthesis
SKELETAL MUSCLES	Increases force of contraction, glycogen breakdown	None (not innervated)
ADIPOSE TISSUE	Lipid breakdown, fatty acid release	None (not innervated)
URINARY SYSTEM		
Kidneys	Decreases urine production	Increases urine production
Urinary bladder	Constricts sphincter, relaxes urinary bladder	Tenses urinary bladder, relaxes sphincter to eliminate urine
REPRODUCTIVE SYSTEM	Increased glandular secretions; ejaculation in males	Erection of penis (males) or clitoris (females)