

Neurotransmitters of the ANS

Neurotransmitters are chemicals that travel across the synapse connecting two neurons, or between a neuron and an effector. For example, when we discussed the neuromuscular junction we were talking about a neuron-effector synapse and the neurotransmitter used was **acetylcholine (ACH)**. ACH is also one of the neurotransmitters used by the ANS.

Cholinergic neurons produce ACH and store ACH in their synaptic terminals. The preganglionic neuron for both parasympathetic and sympathetic nervous systems is cholinergic. The postganglionic neuron of the parasympathetic division is also cholinergic. The postganglionic neuron for the sympathetic division is usually an **adrenergic neuron** which means that it produces catecholamines. Catecholamines are an organic chemistry group that includes **norepinephrine (NE), epinephrine (EPI) and dopamine**. In the Sympathetic nervous system NE is the neurotransmitter found at the synapse between postganglionic neurons and the organ. Sympathetic postganglionic neurons innervating sweat glands and some reproductive system blood vessels are the exception; they are cholinergic and release ACH.



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