

06 - 6. Acetylcholine

6. Acetylcholine

© SPMM Course 6. Acetylcholine

•choline and acetyl-coenzyme A Source Source •availability of choline Rate limiting step Rate limiting step •choline acetyltransferase Synthetic enzymes Synthetic enzymes
•acetylcholinesterase – rapid metabolism Breakdown enzymes Breakdown enzymes •Choline Breakdown product Breakdown product •no reuptake. Degraded choline is re up-taken and recycled. Reuptake Reuptake •Modulate arousal, learning, memory, rapid eye movement sleep, pain perception, and thirst and parasympathetic mediation. Function Function •Muscarinic receptors - G-protein-coupled. •Five subtypes (M1, M2, M3, M4, and M5) •Nicotinic receptors - ion channels; •more in peripheral parasympathetic system; •Less common than M receptors in CNS – mediates attention. Receptors Receptors •reduced cholinergic function in Alzheimer's dementia; dopamine balance affected in Parkinson's Disorders Disorders

Revision #1

Created 2026-01-04 20:03:04 UTC by Omar Ayman

Updated 2026-01-04 20:03:04 UTC by Omar Ayman