

[Open Peer Review on Qeios](#)

Amantadine Sulfate

National Cancer Institute

Source

National Cancer Institute. *Amantadine Sulfate*. NCI Thesaurus. Code C90781.

The sulfate salt of amantadine, a synthetic tricyclic amine with antiviral, antiparkinsonian, and antihyperalgesic activities. Amantadine appears to exert its antiviral effect against the influenza A virus by interfering with the function of the transmembrane domain of the viral M2 protein, thereby preventing the release of infectious viral nucleic acids into host cells; furthermore, this agent prevents virus assembly during virus replication.

Amantadine exerts its antiparkinsonian effects by stimulating the release of dopamine from striatal dopaminergic nerve terminals and inhibiting its pre-synaptic reuptake. This agent may also exert some anticholinergic effect through inhibition of N-methyl-D-aspartic acid (NMDA) receptor-mediated stimulation of acetylcholine, resulting in antihyperalgesia.