

## Pharmacological Treatment of

| Mechanism                       | Examples                     | Drug Class                |
|---------------------------------|------------------------------|---------------------------|
| Increases dopamine in the brain | L-DOPA + Carbidopa           | <b>Dopamine precursor</b> |
| Mimic dopamine action           | Pramipexole, Ropinirole      | <b>Dopamine agonists</b>  |
| Reduce dopamine breakdown       | Selegiline, Rasagiline       | <b>MAO-B inhibitors</b>   |
| Prolong L-DOPA effect           | Entacapone, Tolcapone        | <b>COMT inhibitors</b>    |
| Reduce tremors                  | Benztropine, Trihexyphenidyl | <b>Anticholinergics</b>   |

Dopamine inhibits acetylcholine (ACh) release.

In Parkinson's disease, dopamine levels decrease → ACh increases → extrapyramidal symptoms (tremor, rigidity).

→ So, we give Anticholinergics

## Pharmacological Treatment of

| Mechanism                   | Examples                             | Drug Class                       |
|-----------------------------|--------------------------------------|----------------------------------|
| Increase acetylcholine      | Donepezil, Rivastigmine, Galantamine | <b>Cholinesterase inhibitors</b> |
| Reduces neurotoxicity       | Memantine                            | <b>NMDA receptor antagonist</b>  |
| Reduce beta-amyloid plaques | Aducanumab, Lecanemab                | <b>Emerging therapies</b>        |
| Manage behavioral symptoms  | Antidepressants, antipsychotics      | <b>Symptomatic management</b>    |

Use **memantine** for moderate-to-severe cases.