

Drug Name and Class	FDA Indication (include stages ) Neurotransmitters Affected/Mechanism of Action Target Symptoms	Short-acting, intermediate-acting, or long-acting. Duration of Action and Half-life (T1/2), CYP 450 enzyme	Notable Side Effects/Precautions Education Instructions
Donepezil (Aricept)	<p><b>FDA Indications</b> Alzheimer disease (mild, moderate, and severe)</p> <p><b>Affected Neurotransmitter</b> acetylcholine enzyme inhibitor (ACh-EI) Cholinesterase inhibitor (selective acetylcholinesterase inhibitor)</p> <p><b>Mechanism of Action</b> Reversibly but noncompetitively inhibits centrally active acetylcholinesterase (AChE), making more acetylcholine available Increased availability of acetylcholine compensates in part for degenerating cholinergic neurons in neocortex that regulate memory</p> <p><b>Target Symptoms</b> Memory loss in Alzheimer disease Behavioral symptoms in Alzheimer disease</p>	<p><b>Pharmacokinetics</b></p> <ul style="list-style-type: none"> <li>• Metabolized by CYP450 2D6 and CYP450 3A4</li> <li>• Elimination half-life approximately 70 hours</li> </ul>	<p><b>Notable side effects</b></p> <ul style="list-style-type: none"> <li>• Nausea, diarrhea, vomiting, increased gastric acid, weight loss, Insomnia, dizziness, fatigue, depression,</li> </ul> <p><b>Notable side effects link to</b></p> <ul style="list-style-type: none"> <li>• Peripheral inhibition of acetylcholinesterase causes gastrointestinal side effects</li> <li>• Central inhibition of acetylcholinesterase may contribute to memory loss, and sleep disturbance</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• May exacerbate asthma and pulmonary disease</li> <li>• Increased gastric acid may increase the risk of ulcers</li> <li>• Bradycardia or heart block in patients with or without heart impairment</li> <li>• Severe renal impairment: not recommended. Maximum dose of Namzaric is 14 mg/week in the evening</li> <li>• Cardiac Impairment: Use with caution. Syncopal episodes have been reported with the use of donepezil</li> <li>• Use of cholinesterase inhibitors is associated with increased risk of syncope, bradycardia, falls, insertion, and hip fracture in older adults</li> </ul>