

Donepezil (acetylcholinesterase inhibitor) and Memantine (NMDA receptor antagonist) for the Treatment of Dementia

### **Donepezil**

Donepezil may help slow down progressive memory loss and difficulty with daily activities if the difficulties are due to diseases that cause dementia like Alzheimer's.

It will not cure dementia or prevent it from progressing.

In some people donepezil may not noticeably help thinking or memory.

It is reasonable to try donepezil for at least six months to see if it is helpful.

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Start by taking 5mg in the morning with a meal.

Some people switch to nighttime which can help if there is stomach upset.

Many people have no side effects.

Vivid dreaming is common.

These side effects are usually temporary and resolve in 1-3 weeks:

- Headaches
- Insomnia
- Minor stomach upset

Let your doctor know immediately if you have the following side effects:

- Severe stomach upset
- Weight loss
- Light headedness, fainting, low blood pressure or falls
- Muscle cramps
- Difficulty urinating

People with the following diagnoses should not take donepezil:

- Sick sinus syndrome
- Slow heartbeat (bradycardia) - it can slow the heart rate further
- Ulcers (increased acid secretion can increase risk of bleeding)
- Urinary retention – it can make it harder to pass urine

Caution should be used if you are taking a beta blocker or calcium channel blocker as donepezil can further slow your heart rate.

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Usually after 4-6 weeks donepezil is increased to 10mg a day.

You should stop if you have intolerable side effects.

If you need to or want to stop donepezil let your doctor know.

Decrease to 5mg for 2-3 weeks before stopping.

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#### References:

Donepezil: Drug Information. *UpToDate*. Accessed 8/1/24

Epperly T, Dunay MA, Boice JL. Alzheimer Disease: Pharmacologic and Nonpharmacologic Therapies for Cognitive and Functional Symptoms. *Am Fam Physician*. 2017 Jun 15;95(12):771-778.

Fink HA, Linskens EJ, MacDonald R, Silverman PC, et al. Benefits and Harms of Prescription Drugs and Supplements for Treatment of Clinical Alzheimer-Type Dementia. *Ann Intern Med*. 2020 May 19;172(10):656-668.

Press D, Alexander M. Cholinesterase Inhibitors in the Treatment of Dementia. *UpToDate*. May 2024.

Regenold WT, Loreck DJ, Brandt N. Prescribing Cholinesterase Inhibitors for Alzheimer Disease: Timing Matters. *Am Fam Physician*. 2018 Jun 1;97(11):700.

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### **Memantine**

Patients with moderate to severe dementia who are either on donepezil or who do not tolerate donepezil (or similar medication) can take memantine.

Memantine may slightly improve symptoms such as difficulty with thinking or memory.

It will not cure dementia or prevent it from progressing.

It is usually slowly increased to a dose of 10mg twice a day over four weeks.

Memantine is generally well tolerated, and few people report side effects.

Dizziness is the most common side effect.

Confusion or hallucinations occur rarely.

#### References:

Epperly T, Dunay MA, Boice JL. Alzheimer Disease: Pharmacologic and Nonpharmacologic Therapies for Cognitive and Functional Symptoms. *Am Fam Physician*. 2017 Jun 15;95(12):771-778.

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