

Alzheimer's: Medicines help manage symptoms and slow decline

Alzheimer's has no cure, but certain medicines can help manage symptoms of the disease and some can slow down disease progression.

[By Mayo Clinic Staff](#)

Medicines for Alzheimer's disease may slow or help manage changes in memory, reasoning and other thinking skills. Managing these symptoms may help people with Alzheimer's disease preserve abilities to perform daily activities and prolong their independence — factors that can improve the overall quality of life. Alzheimer's drugs don't work for everyone and may lose effectiveness over time. These medicines tend to be most effective for people with early to moderate Alzheimer's disease.

If your healthcare professional prescribes medicine as part of an Alzheimer's care plan, make sure you understand the possible benefits and risks. The treatment plan may change as the disease progresses.

Research into more-effective Alzheimer's medicines is ongoing. If you can't take the approved medicines or they don't work for you, ask your healthcare professional if you might enroll in a clinical trial.

FDA-approved medicines for treating symptoms

The Food and Drug Administration (FDA) has approved medicines to treat symptoms at different stages of Alzheimer's disease — mild, moderate and severe. These stages are based on scores on tests that assess memory, awareness of time and place, thinking, and reasoning. Most people with Alzheimer's disease take one or more of these medicines at some time during treatment:

- Cholinesterase (ko-lin-ES-tur-ays) inhibitors.
- Memantine.
- Brexpiprazole.

These medicines aren't approved or recommended for treating mild cognitive impairment (MCI). Symptoms of MCI are small but notable changes in memory and thinking. The most common cause of MCI is Alzheimer's disease. MCI due to Alzheimer's can be a stage between typical age-related memory changes and

Alzheimer's disease dementia. Some people with MCI do not have Alzheimer's disease but may have other causes of their condition.

Healthcare professionals might prescribe these Alzheimer's medicines for stages other than the officially approved stage. Alzheimer's stages aren't exact, and individual responses to medicines vary. Also, treatment options are limited.

Goals for treating symptoms

Alzheimer's disease gradually damages and destroys nerve cells in the brain. This results in a decline in memory, reasoning and other thinking skills. Medicines that treat symptoms do not stop the loss of nerve cells. Instead, they're designed to help healthy nerve cells work as well as possible even though cells will continue to be lost.

The goal is to slow down the decline in thinking skills, so a person with Alzheimer's can experience a better quality of life. Studies have shown that these medicines may help manage symptoms, but the effect is modest.

It may be very hard for a person with Alzheimer's disease or their caregivers to know if the medicine is helping — in part because it's also very hard to know how symptoms might change without the treatment. At some point in the course of the disease, these medicines will not be effective.

It's important to work with your healthcare team to review symptoms regularly and change the treatment plan as needed. Continue taking medicine as directed. Your healthcare professional can advise you and caregivers about when to change or stop taking a medicine.

If you do stop taking Alzheimer's disease medicine, tell your healthcare professional about any changes in symptoms.

Cholinesterase inhibitors

One effect of lost nerve cells is lower levels of a chemical messenger called acetylcholine. This messenger is important for memory, language, judgment and other thinking skills. Cholinesterase inhibitors prevent the breakdown of acetylcholine, making more of the chemical messenger available to healthy nerve cells.

Over time, the continued loss of brain cells means that not enough of the messenger chemical is available.

Side effects of cholinesterase inhibitors can include nausea, diarrhea, loss of bladder control, muscle cramps, muscle twitching and weight loss. If taken at night, the medicine may cause vivid dreams. Starting treatment at a low dose and working up to a higher

dose can help lessen side effects. Taking these medicines with food also might help lessen some side effects.

People with certain conditions that cause irregular heartbeats can't take cholinesterase inhibitors.

Three cholinesterase inhibitors are commonly prescribed:

- **Donepezil (Aricept)** is approved to treat all stages of the disease. It's taken once a day as a pill.
- **Galantamine** is approved to treat mild to moderate Alzheimer's disease. It's taken as an extended-release pill once a day or as a pill or liquid twice a day.
- **Rivastigmine** is approved for mild to moderate Alzheimer's disease. It's taken as a pill twice a day. A rivastigmine skin patch (Exelon) that's approved to treat all stages of Alzheimer's disease is changed daily.

Memantine

Glutamate is a chemical messenger that is important for many brain functions, including learning and memory. In Alzheimer's, certain disease processes cause too much glutamate activity. Excess glutamate causes irregular activity and damage in nerve cells that interact with the chemical messenger.

Memantine (Namenda) is a medicine that limits glutamate-cell interactions. Memantine may help slow the decline in memory and thinking skills. It also may play a role in protecting nerve cells.

Memantine is approved to treat moderate to severe Alzheimer's disease. It's usually taken as a pill or liquid twice a day or as an extended-release pill once a day.

Side effects may include dizziness, headache, confusion, hallucinations, agitation and constipation.

The FDA also has approved a combination of donepezil and memantine (Namzaric). It's taken as an extended-release pill once a day.

Medicine for agitation

Brexpiprazole (Rexulti) is a kind of medicine called an atypical antipsychotic. The FDA approved brexpiprazole for treating agitation linked to dementia due to Alzheimer's disease. The medicine is taken as a pill once a day.

The label for brexpiprazole carries a severe warning. Older adults with dementia-related psychosis, such as delusions and hallucinations, who are treated with antipsychotic medicines such as brexpiprazole are at increased risk of death.

A person with Alzheimer's and family caregivers should talk with the person's healthcare professional about the risks and benefits of using brexpiprazole to treat agitation.

Antiamyloid treatment

Antiamyloid medicines are designed to help clear a substance called amyloid from the brain. A key feature of Alzheimer's disease is irregular amyloid activity and the buildup of beta-amyloid plaques.

Lecanemab (Leqembi) and donanemab (Kisunla) are antiamyloid medicines approved for people with mild dementia due to Alzheimer's disease and mild cognitive impairment due to Alzheimer's disease. Lecanemab is given as an IV infusion every two weeks. Donanemab is given as an IV infusion every four weeks. Each infusion lasts about an hour.

These medicines reduce brain amyloid and modestly slow the decline in memory, reasoning and other thinking skills.

The FDA approved lecanemab in 2023 and donanemab in 2024, so there is limited information on the long-term treatment effect and safety of the medicines.

Side effects of lecanemab can include fever, flu-like symptoms, nausea, vomiting, dizziness, changes in heart rate and shortness of breath. Other medicines may be given to manage these symptoms.

Side effects of donanemab may include flu-like symptoms, nausea, vomiting, headache and changes in blood pressure. Rarely, donanemab can cause a life-threatening allergic reaction and swelling.

Both medicines may cause serious side effects that include brain swelling or small bleeds in the brain. These side effects are called amyloid-related imaging abnormalities, also known as ARIA. Rarely, this swelling or bleeding may cause:

- Headache.
- Confusion.
- Dizziness.
- Vision changes.
- Nausea.
- Strokelike symptoms, such as weakness and numbness.
- Trouble walking.
- Seizures.
- Larger brain bleeds.
- Death.

Understanding risks

Many people with Alzheimer's disease cannot take lecanemab or donanemab because of several factors that increase the risk of serious side effects. Talk to your healthcare professional about your risk profile.

Your medical team will likely recommend a genetic test to understand your risk. A gene called APOE comes in a few different forms. APOE e4 increases the risk of developing Alzheimer's disease. People who carry one copy of APOE e4 also have an increased risk of brain swelling or bleeding. People with two copies of APOE e4 have a greater risk.

Many factors rule out the use of lecanemab and donanemab, including:

- Stroke, ministrokes or heart attack within the past year.
- Immune system diseases, such as rheumatoid arthritis or Crohn's disease.
- Other diseases requiring medicines, called monoclonal antibodies, that are based on the same basic science as lecanemab.
- Use of blood-thinning medicines.
- History of drug or alcohol misuse or dependence in the past two years.
- Other medical conditions that are not well-managed.
- Recent history of cancer.

Imaging and other tests

Before starting lecanemab or donanemab, you need a test to determine the presence of brain amyloid. Most commonly this test is either an amyloid PET scan or a test of cerebral spinal fluid to measure levels of beta-amyloid in the brain. MRI scans are needed to monitor for brain swelling or bleeding. After starting lecanemab, MRI is recommended before the fifth, seventh and 14th IV treatments and after one year of treatment. After starting donanemab, MRI is recommended before the second, third, fourth and seventh IV treatments.

Your care team watches for side effects and asks you or your caregiver how your body reacts to the medicine.