

Medications for Alzheimer's disease: are they right for you?

There are no medications today that can cure Alzheimer's disease. But there are currently four medications approved by Health Canada which can improve some symptoms for a period of time or slow the rate of decline.

When you or someone you care about are diagnosed with Alzheimer's disease, it's important to have an informed discussion with your healthcare team, including your pharmacist, about whether or not the medications available are right for you.

This information sheet will provide you with information about the potential benefits, common side effects and others issues to consider, such as when to start and when to stop taking these medications. With the help of your family doctor or pharmacist, knowing what to expect from the medications that are available can help you and the person you are caring for make an informed decision about whether one or more of these medications might be right for you.

What are the main medications available?

The four medications approved by Health Canada to treat Alzheimer's disease include three that belong to the same class, called **cholinesterase inhibitors** and one that belongs to a class called **NMDA receptor antagonists**. These four medications have been available for over 20 years and a great deal has been learned about their potential benefits, limitations and side effects. These medications are not cures, but they may improve some symptoms of the disease for a period of time or slow the rate of decline.

The **cholinesterase inhibitors** available are **donepezil** (Aricept™), **galantamine** (Reminyl™) and **rivastigmine** (Exelon™). These medications are believed to work by preventing the breakdown of a chemical in the brain called acetylcholine. Acetylcholine is thought to be important for learning and memory. In Alzheimer's disease, nerve cells that make acetylcholine are lost. Because of this, people with Alzheimer's disease have lower levels of acetylcholine. These medications provide an increased concentration of it, which may temporarily ease or stabilize some of the person's symptoms.

The **NMDA receptor antagonist** available is called **memantine** (Ebixa™). This medication is thought to work by its effect on a brain chemical called glutamate, which helps to send messages between brain cells. Glutamate is released in excessive amounts when brain cells are damaged by Alzheimer's disease; memantine may protect brain cells by blocking effects of too much glutamate.

The following are the common names used for these four medications:

| Brand Name | Generic Name |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Aricept™ , Accel-Donepezil, Act Donepezil, Act Donepezil ODT, Apo-Donepezil, Auro-Donepezil, Bio-Donepezil, Jamp-Donepezil, Mar- Donepezil, Mylan-Donepezil, Nat-Donepezil, PMS-Donepezil, Ran-Donepezil, Riva Donepezil, Sandoz Donepezil, Sandoz Donepezil ODT, Septa Donepezil, Teva-Donepezil or Van-Donepezil | Donepezil |
| Reminyl ER™ , Auro-Galantamine ER, Mar-Galantamine ER, Mylan- Galantamine ER, PMS-Galantamine ER, Pat-Galantamine or Teva-Galantamine ER | Galantamine |
| Exelon™ , Apo-Rivastigmine, Auro-Rivastigmine, Med-Rivastigmine, Mylan-Rivastigmine, PMS-Rivastigmine, or Sandoz Rivastigmine | Rivastigmine |
| Ebixa® , Act-Memantine, Apo-Memantine, PMS-Memantine, Ran-Memantine, Ratio-Memantine, Riva-Memantine or Sandoz Memantine | Memantine |

Are these medications covered by provincial health insurance plans?

Medication coverage varies from province to province and individuals may be required to cover some of the costs associated with these medications. The person must meet specific criteria in their province to be entitled to have the medications paid for by their provincial medical coverage plan. The medications may also be covered by many private insurance plans.

How effective are these medications?

Improvements are often subtle and can be hard to detect, even for your doctor or pharmacist. It also may take several months to see the benefits. Some people will benefit from taking these medications, others will not. Some of the improvements that you may notice might include:

- **Modest cognitive improvements. The person may notice improvements in:**
 - memory
 - concentration
 - language
- **Subtle behavioural improvements. The person may seem:**
 - brighter
 - more engaged in daily activities (such as cooking, bathing, and using appliances)
 - more motivated to do things
 - calmer
 - more communicative

Some people treated with the medications will not show significant improvement, but they may stabilize for a period of time. Because Alzheimer's is a progressive disease that gets worse over time, noticing no change in the person's daily function and behaviour for six months or a year after starting the drug is a positive outcome and a sign that the medication is working. If the medications are discontinued, people treated with the medications may lose the benefits and might decline at a rate faster than would otherwise be expected.

Are these medications effective for other types of dementia?

Cholinesterase inhibitors (donepezil, galantamine and rivastigmine) were originally developed to treat Alzheimer's disease. Cholinesterase inhibitors, particularly donepezil and rivastigmine, are also commonly used to treat Lewy body dementia and have been reported to reduce visual hallucinations. Rivastigmine has also been approved to treat Parkinson's disease dementia.

There is not enough evidence that supports the use of cholinesterase inhibitors or memantine in people with vascular dementia or frontotemporal dementia. However, for people with a combination of Alzheimer's disease and vascular dementia (known as mixed dementia), cholinesterase inhibitors may be used when Alzheimer's disease is the main cause, but not to treat vascular dementia on its own.

It is important to remember that dementia affects each person differently and what works for one person may not work for another. For more information about medications available to treat a particular dementia, or symptoms that are affecting you or the person you are caring for, talk with your doctor or pharmacist.

Note: These medications are generally not effective in mild cognitive impairment (MCI) and do not reduce the risk of MCI progressing to Alzheimer's disease or another type of dementia. However, if you have concerns about memory problems, your family doctor can be helpful in screening for signs of dementia.

What are the potential side effects?

| Medication | Potential side effects |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Donepezil, Galantamine and Rivastigmine* *Note: These medications are all available as pills, but due to gastrointestinal side effects Rivastigmine is also available as a patch that can be applied to the skin. This may be preferable for some people because it may reduce gastrointestinal side effects. | <ul style="list-style-type: none">• gastrointestinal side effects, like nausea, vomiting, diarrhea or loose stools• loss of appetite and subsequent unintended weight loss• slowing of the heart rate• dizziness• falls• headaches• nightmares |

| Medication | Potential side effects |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Memantine*</p> <p>*Memantine is generally well-tolerated and doesn't cause the gastrointestinal side effects that can result from the other three medications.</p> | <ul style="list-style-type: none"> • sedation • muscle cramps • headaches • dizziness • fatigue • insomnia • caution is also required in prescribing memantine for people who have problems with their kidneys |

The medications are usually started at the lowest dose available, which may help minimize side effects. If the person is tolerating the medication, the dosage is usually increased slowly to maximize the benefits of the treatment.

Many people experience side effects that may disappear with time. A very common side effect from cholinesterase inhibitors is gastro-intestinal (GI) side effects, or a stomach upset. GI side effects from cholinesterase inhibitors (donepezil, galantamine and rivastigmine) sometimes lessen or disappear over time. But if the side effects outweigh the benefits or are intolerable, trying a second or a third cholinesterase inhibitor is worth considering. All three medications in this class seem to be equally effective, but individuals may tolerate one medication better than another because each medication has slightly different side effects.

It is important to discuss any side effects from these four medications with your doctor or pharmacist. If the person experiences dizziness, a slower heart rate, falls, headaches, or unintended weight loss, contact your doctor or pharmacist as soon as possible.

When should you start taking a medication for Alzheimer's disease and for how long?

If there are no other health conditions that could make taking these medications dangerous for the person with Alzheimer's disease, doctors generally recommend that a person start a trial of one of these medications immediately after being diagnosed. Since the majority of people treated with medications will experience either a modest improvement or slower decline, there is an advantage to starting a treatment trial of a cholinesterase inhibitor as soon as possible after a diagnosis of Alzheimer's disease is established. If your family doctor is uncomfortable or reluctant to prescribe one of these medications, you may want to consider requesting a consultation with a geriatric specialist for another opinion.

If a person with Alzheimer's disease is benefiting from the medication and can tolerate the side effects, it is often recommended that they continue taking the medication until the final stages of the illness. The time to stop the medication may be when the person is no longer communicative, bed-bound and no longer able to participate in activities of daily living (such as bathing, preparing food and planning their day).

In other cases, where there is no clear benefit, if there is a safety concern, the side effects are too difficult, or the person dislikes or refuses to take the medication, you may decide to stop treatment in consultation with your doctor. It is important to note that after a period of time some drug plans may stop covering the costs associated with these medications. If this happens, you may wish to discuss with your doctor the pros and cons of continuing taking the medication while paying out of pocket.

Some specialists recommend adding memantine to one of the cholinesterase inhibitors once a person with Alzheimer's disease has progressed from early/middle to middle/late stage. Memantine is also sometimes prescribed for people in the middle/late stages who can't tolerate the side effects from a cholinesterase inhibitor.

To benefit from the medications, the person should take the medications as prescribed. Ask your pharmacist about having your medications blister packaged. This can help to ensure no double dosing or missed doses.

How can you tell if the medications are helping?

Because the potential benefits of these medications are modest and subtle, it can be challenging to determine whether the medication is helping. First, you need to determine that the medication is safe for the person and that the side effects can be tolerated. It could take a month or longer before you start noticing any benefits.

Positive changes in the person's behaviour and abilities are generally a better way to tell if the medications are helping than cognitive tests, which are usually not sensitive enough to pick up behavioural benefits that a person may be getting from taking the medication.

Here are some questions for caregivers to ask that might determine if the medications are helping:

- Does the person seem more engaged, interested, communicative, social or alert?
- Is the person less apathetic and more motivated to do some of the things that they enjoyed doing in the past?
- Is the person able to perform certain tasks, like bathing, more effectively or efficiently, or do something they had forgotten how to do?
- Does the person seem less anxious, less easily frustrated, or more content?

If you see any of these small, subtle improvements in the person's behaviour, mood, memory, thinking, or concentration, this may have a significant benefit in terms of their daily quality of life. Such seemingly small changes may also help reduce the stress and demands on the caregiver.

Noticing no change in the person for an extended period of time may also be a positive outcome because it suggests that the medication is slowing their decline, especially if the person had been declining before starting treatment.

It can be helpful for the person with Alzheimer's disease and family members to talk with their healthcare provider, or pharmacist, about these observations. You might want to make some notes or document your observations in a diary for a follow-up appointment with your physician. Some of the

information you may want to record includes changes in eating patterns, in food preferences and in toileting habits. This information will be useful and important in helping to make the right decisions about continuing, changing or stopping treatment.

What other treatment options are available?

Medications should only be one part of the overall care for a person with Alzheimer's disease. People with Alzheimer's disease should also consider engaging in non-medical activities such as:

- social activities, such as joining a dancing class
- physical and cognitively stimulating activities
- pet and music therapy
- good nutrition

These non-medical activities are at least as important in helping a person to live well with Alzheimer's disease and any other type of dementia.

For more information about other treatment options contact your local Alzheimer Society. For more information about brain health, please visit our website at www.alzheimer.ca/brainhealth.

Ready to talk with your physician or pharmacist?

If the person with Alzheimer's disease or another dementia does not have any other health conditions that could make taking these medications dangerous for them, they should be offered the option of being treated with the currently approved medications for the disease.

If you have accurate information and realistic expectations about the potential benefits and possible side effects of these medications, you'll be ready and prepared to talk with your doctor or pharmacist about whether these medications are right for you.

The contents of this document are provided for information purposes only, and do not represent advice, an endorsement or a recommendation, with respect to any product, service or enterprise, and/or the claims and properties thereof, by the Alzheimer Society of Canada.

Alzheimer Society

Alzheimer Society of Canada

20 Eglinton Avenue West, 16th Floor, Toronto, Ontario M4R 1K8

Tel: 416-488-8772 1-800-616-8816 Fax: 416-322-6656

E-mail: info@alzheimer.ca Website: www.alzheimer.ca

Facebook: www.facebook.com/AlzheimerCanada Twitter: www.twitter.com/AlzCanada



Endorsed by



CANADIAN
PHARMACISTS
ASSOCIATION

ASSOCIATION DES
PHARMACIENS
DU CANADA