

What is Dementia?



Healthy Aging Training Academy

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What is Dementia? Course Instructions

During this course, you will be using two internet websites:

- YouTube—for course video
- Survey Monkey—for Knowledge Checks, Course Certification, and

Course Evaluation—Links for each course task can be found in this book.

The checklist of tasks for this course is as follows:

√	#	Course Task
	1	Read—Basics of Alzheimer’s Disease and Dementia—What is Dementia?
	2	Read—Types of Dementia
	3	Read—Dementia (Mayo Clinic)
	4	Watch Video 1—Types of Dementia—YouTube
	5	Watch Video 2—Experience 12 minutes in Alzheimer’s Dementia—YouTube
	6	Watch Video 3—How Alzheimer’s Changes the Brain—YouTube
	7	Complete Knowledge Check—Survey Monkey—about articles and videos
	8	Complete the Course Certification
	9	Complete the Course Evaluation

- 1) Each video will stop when it is finished.
 - a. Only watch one video, and then return to this course book
 - b. *If you click on or watch any other videos that appear on YouTube, the sequence of videos may not follow what is listed in this course*

- 2) Survey Monkey is used for Knowledge Checks, Course Certification, and Course Evaluation.
 - a. *Avoid opening an account or taking other surveys suggested by Survey Monkey*
 - b. *Purchases are never required for these courses*

- 3) Give time for the videos and surveys to load—extra clicking or trying to go back will create a problem.

What Is Dementia?

Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—and behavioral abilities to such an extent that it interferes with a person’s daily life and activities. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person’s functioning, to the most severe stage, when the person must depend completely on others for basic activities of living.



Signs and symptoms of dementia result when once-healthy neurons (nerve cells) in the brain stop working, lose connections with other brain cells, and die. While everyone loses some neurons as they age, people with dementia experience far greater loss.

While dementia is more common as people grow older (up to half of all people age 85 or older may have some form of dementia), it is **not** a normal part of aging. Many people live into their 90s and beyond without any signs of dementia. One type of dementia, [frontotemporal disorders](#), is more common in middle-aged than older adults.

[Memory loss](#), though common, is not the only sign of dementia. For a person to have dementia, he or she must have:

- Two or more core mental functions that are impaired. These functions include memory, language skills, visual perception, and the ability to focus and pay attention. These also include cognitive skills such as the ability to reason and solve problems.
- A loss of brain function severe enough that a person cannot do normal, everyday tasks

In addition, some people with dementia cannot control their emotions. Their personalities may change. They can have [delusions](#), which are strong beliefs without proof, such as the idea that someone is stealing from them. They also may [hallucinate](#), seeing or otherwise experiencing things that are not real.

The causes of dementia can vary, depending on the types of brain changes that may be taking place.

Other dementias include [Lewy body dementia](#), [frontotemporal disorders](#), and [vascular dementia](#). It is common for people to have [mixed dementia](#)—a combination of two or more disorders, at least one of which is dementia. For example, some people have both Alzheimer’s disease and vascular dementia. Learn more about dementia from [MedlinePlus](#).¹

For More Information About Dementia

NIA Alzheimer’s and related Dementias Education and Referral (ADEAR) Center

1-800-438-4380 (toll-free)

adear@nia.nih.gov

www.nia.nih.gov/alzheimers

The National Institute on Aging’s ADEAR Center offers information and free print publications about Alzheimer’s disease and related dementias for families, caregivers, and health professionals. ADEAR Center staff answer telephone, email, and written requests and make referrals to local and national resources.

Alzheimer’s Association	Alzheimer’s Foundation of America
1-800-272-3900 (toll-free, 24/7)	1-866-232-8484 (toll-free)
1-866-403-3073 (TTY/toll-free)	info@alzfdn.org
info@alz.org	www.alzfdn.org
www.alz.org	

Updated: July 23, 2017

¹ National Institute on Aging—<https://www.nia.nih.gov/health/what-dementia>

Types of Dementia

Various disorders and factors contribute to the development of dementia. Neurodegenerative disorders result in a progressive and irreversible loss of neurons and brain functioning. Currently, there are no cures for these types of disorders. They include:

- [Alzheimer's disease](#)
- [Frontotemporal disorders](#)
- [Lewy body dementia](#)

Other types of progressive brain disease include:

- [Vascular dementia and vascular cognitive impairment](#)
- [Mixed dementia](#), a combination of two or more disorders, at least one of which is dementia

Other types of dementia can often be halted or even reversed with treatment. For example, normal pressure hydrocephalus, an abnormal buildup of cerebrospinal fluid in the brain, often resolves with treatment.

In addition, [certain medical conditions](#) can cause serious memory problems that resemble dementia. These problems should go away once the conditions are treated. These conditions include:

- Side effects of certain medicines
- [Depression](#)
- Certain vitamin deficiencies
- Drinking too much [alcohol](#)
- Blood clots or tumors in the brain
- Head injury, such as a concussion from a fall or accident
- Thyroid, kidney, or liver problems

Doctors have identified many other conditions that can cause dementia or dementia-like symptoms. These conditions include:

- [Creutzfeldt-Jakob disease](#), a rare brain disorder
- [Huntington's disease](#), a hereditary disorder caused by a faulty gene
- Chronic traumatic encephalopathy (CTE), caused by repeated traumatic brain injury
- Subdural hematoma, bleeding between the brain's surface and its outer covering

The overlap in symptoms of various dementias can make it hard to get an accurate diagnosis. But a proper diagnosis is important to get the right treatment. Seek help from a neurologist—a doctor who specializes in disorders of the brain and nervous system—or other medical specialist who knows about dementia.

Learn more about dementia from [MedlinePlus](#).²

For More Information About Types of Dementia

<p>NIA Alzheimer's and related Dementias Education and Referral (ADEAR) Center 1-800-438-4380 (toll-free) adear@nia.nih.gov www.nia.nih.gov/alzheimers</p>	<p>The National Institute on Aging's ADEAR Center offers information and free print publications about Alzheimer's disease and related dementias for families, caregivers, and health professionals. ADEAR Center staff answer telephone, email, and written requests and make referrals to local and national resources.</p>
<p>National Institute of Neurological Disorders and Stroke 1-800-352-9424 (toll-free) braininfo@ninds.nih.gov www.ninds.nih.gov</p>	<p>Association for Frontotemporal Degeneration 1-866-507-7222 (toll-free) www.theaftd.org</p>
<p>Lewy Body Dementia Association 1-404-935-6444 1-800-539-9767 (toll-free LBD Caregiver Link) www.lbda.org</p>	<p>Alzheimer's Association 1-800-272-3900 (toll-free, 24/7) 1-866-403-3073 (TTY/toll-free) info@alz.org www.alz.org</p>
<p>National Association for Rare Disorders 1-800-999-6673 (toll-free) www.rarediseases.org</p>	<p>Updated: July 23, 2017</p>

² National Institute on Aging—<https://www.nia.nih.gov/health/what-dementia>



Dementia

Symptoms and causes

By Mayo Clinic Staff

Symptoms

Dementia symptoms vary depending on the cause, but common signs and symptoms include:

Cognitive changes

- Memory loss, which is usually noticed by a spouse or someone else
- Difficulty communicating or finding words
- Difficulty reasoning or problem-solving
- Difficulty handling complex tasks
- Difficulty with planning and organizing
- Difficulty with coordination and motor functions
- Confusion and disorientation

Psychological changes

- Personality changes

Depression

- Anxiety
- Inappropriate behavior
- Paranoia
- Agitation
- Hallucinations

When to see a doctor

See a doctor if you or a loved one has memory problems or other dementia symptoms. Some treatable medical conditions can cause dementia symptoms, so it's important to determine the underlying cause.

Causes

Dementia involves damage of nerve cells in the brain, which can occur in several areas of the brain. Dementia affects people differently, depending on the area of the brain affected.

Dementias are often grouped by what they have in common, such as the part of the brain that's affected or whether they worsen over time (progressive dementias). Some dementias, such as those caused by a reaction to medications or vitamin deficiencies, might improve with treatment.

Progressive dementias

Types of dementias that progress and aren't reversible include:

- **Alzheimer's disease.** In people age 65 and older, Alzheimer's disease is the most common cause of dementia.

Although the cause of Alzheimer's disease isn't known, plaques and tangles are often found in the brains of people with Alzheimer's. Plaques are clumps of a protein called beta-amyloid, and tangles are fibrous tangles made up of tau protein.

Certain genetic factors might make it more likely that people will develop Alzheimer's.

- **Vascular dementia.** This second most common type of dementia occurs as a result of damage to the vessels that supply blood to your brain. Blood vessel problems can be caused by stroke or other blood vessel conditions.
- **Lewy body dementia.** Lewy bodies are abnormal clumps of protein that have been found in the brains of people with Lewy body dementia, Alzheimer's disease and Parkinson's disease. This is one of the more common types of progressive dementia.
- **Frontotemporal dementia.** This is a group of diseases characterized by the breakdown (degeneration) of nerve cells in the frontal and temporal lobes of the brain, the areas generally associated with personality, behavior and language.
As with other dementias, the cause isn't known.
- **Mixed dementia.** Autopsy studies of the brains of people 80 and older who had dementia indicate that many had a combination of Alzheimer's disease, vascular dementia and Lewy body dementia. Studies are ongoing to determine how having mixed dementia affects symptoms and treatments.

Other disorders linked to dementia

- **Huntington's disease.** Caused by a genetic mutation, this disease causes certain nerve cells in your brain and spinal cord to waste away. Signs and symptoms, including a severe decline in thinking (cognitive) skills usually appear around age 30 or 40.
- **Traumatic brain injury.** This condition is caused by repetitive head trauma, such as experienced by boxers, football players or soldiers.
Depending on the part of the brain that's injured, this condition can cause dementia signs and symptoms, such as depression, explosiveness, memory loss, uncoordinated movement and impaired speech, as well as slow movement, tremors and rigidity (parkinsonism). Symptoms might not appear until years after the trauma.
- **Creutzfeldt-Jakob disease.** This rare brain disorder usually occurs in people without known risk factors. This condition might be due to an abnormal form of a protein. Creutzfeldt-Jakob disease can be inherited or caused by exposure to diseased brain or nervous system tissue.
Signs and symptoms of this fatal condition usually appear around age 60.
- **Parkinson's disease.** Many people with Parkinson's disease eventually develop dementia symptoms (Parkinson's disease dementia).

Dementia-like conditions that can be reversed

Some causes of dementia or dementia-like symptoms can be reversed with treatment. They include:

- **Infections and immune disorders.** Dementia-like symptoms can result from fever or other side effects of your body's attempt to fight off an infection. Conditions such as multiple sclerosis that result from the body's immune system attacking nerve cells also can cause dementia.
- **Metabolic problems and endocrine abnormalities.** People with thyroid problems, low blood sugar (hypoglycemia), too little or too much sodium or calcium, or an impaired ability to absorb vitamin B-12 can develop dementia-like symptoms or other personality changes.
- **Nutritional deficiencies.** Not drinking enough liquids (dehydration); not getting enough thiamin (vitamin B-1), which is common in people with chronic alcoholism; and not getting enough vitamins B-6 and B-12 in your diet can cause dementia-like symptoms.
- **Reactions to medications.** A reaction to a medication or an interaction of several medications can cause dementia-like symptoms.
- **Subdural hematomas.** Bleeding between the surface of the brain and the covering over the brain, which is common in the elderly after a fall, can cause symptoms similar to dementia.
- **Poisoning.** Exposure to heavy metals, such as lead, and other poisons, such as pesticides, as well as alcohol abuse or recreational drug use can lead to symptoms of dementia. Symptoms might resolve with treatment.
- **Brain tumors.** Rarely, dementia can result from damage caused by a brain tumor.
- **Anoxia.** This condition, also called hypoxia, occurs when organ tissues aren't getting enough oxygen. Anoxia can occur due to severe asthma, heart attack, carbon monoxide poisoning or other causes.
- **Normal-pressure hydrocephalus.** This condition, which is caused by enlarged ventricles in the brain, can cause walking problems, urinary difficulty and memory loss.

Risk factors

Many factors can eventually lead to dementia. Some factors, such as age, can't be changed. Others can be addressed to reduce your risk.

Risk factors that can't be changed

- **Age.** The risk rises as you age, especially after age 65. However, dementia isn't a normal part of aging, and dementia can occur in younger people.
- **Family history.** Having a family history of dementia puts you at greater risk of developing the condition. However, many people with a family history never develop symptoms, and many people without a family history do. Tests to determine whether you have certain genetic mutations are available.
- **Down syndrome.** By middle age, many people with Down syndrome develop early-onset Alzheimer's disease.
- **Mild cognitive impairment.** This involves difficulties with memory but without loss of daily function. It puts people at higher risk of dementia.

Risk factors you can change

You might be able to control the following risk factors of dementia.

- **Heavy alcohol use.** If you drink large amounts of alcohol, you might have a higher risk of dementia. Some studies, however, have shown that moderate amounts of alcohol might have a protective effect.
- **Cardiovascular risk factors.** These include high blood pressure (hypertension), high cholesterol, buildup of fats in your artery walls (atherosclerosis) and obesity.
- **Depression.** Although not yet well-understood, late-life depression might indicate the development of dementia.
- **Diabetes.** If you have diabetes, you might have an increased risk of dementia, especially if it's poorly controlled.
- **Smoking.** Smoking might increase your risk of developing dementia and blood vessel (vascular) diseases.
- **Sleep apnea.** People who snore and have episodes where they frequently stop breathing while asleep may have reversible memory loss.

Complications

Dementia can affect many body systems and, therefore, the ability to function. Dementia can lead to:

- **Inadequate nutrition.** Many people with dementia eventually reduce or stop their intake of nutrients. Ultimately, they may be unable to chew and swallow.
- **Pneumonia.** Difficulty swallowing increases the risk of choking or aspirating food into the lungs, which can block breathing and cause pneumonia.
- **Inability to perform self-care tasks.** As dementia progresses, it can interfere with bathing, dressing, brushing hair or teeth, using the toilet independently and taking medications accurately.
- **Personal safety challenges.** Some day-to-day situations can present safety issues for people with dementia, including driving, cooking and walking alone.
- **Death.** Late-stage dementia results in coma and death, often from infection.

³Mayo Clinic Footer

³ Legal Conditions and Terms

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Videos

Video 1—Types of Dementia

Step 4. View— <https://youtu.be/IGz22A8tUMk>

Video 2— Experience 12 minutes in Alzheimer’s Dementia

Step 5. View— https://youtu.be/LL_Gq7Shc-Y

Video 3— How Alzheimer’s Changes the Brain

Step 6. View— <https://youtu.be/0GXv3mHs9AU>

Knowledge Check

Course Knowledge Check

Step 7. Knowledge Check— <https://www.surveymonkey.com/r/FC6L83Q>

Course Certification and Evaluation

What is Dementia?—

Course Certification

Step 8. Please certify your course completion—

<https://www.surveymonkey.com/r/WCCY9X3>

What is Dementia?—

Course Evaluation

Step 9. Please complete the course evaluation—

<https://www.surveymonkey.com/r/927N3RN>