

ALZHEIMER'S DISEASE

What is Alzheimer's disease?

Alzheimer's disease is the most common cause of dementia among older people. It involves parts of the brain that control thought, memory and language. Alzheimer's damages a person's ability to reason, remember, speak, perform simple calculations, and carry out routine tasks. Over time, patients also may become anxious or aggressive or wander away from home. In the later stages, they may forget how to do basic tasks, like brushing their teeth or dressing themselves. Eventually, patients need total care. It is estimated that up to 4.5 million people currently suffer from Alzheimer's disease in the United States.

What is the age of most people with Alzheimer's disease?

The risk of Alzheimer's increases with age. In most people with Alzheimer's disease, symptoms first appear after age 65. About 3 percent of men and women ages 65 to 74 have the disease, but nearly half of those age 85 and older may have the disease. It is not uncommon for individuals to have mild symptoms for some time before a diagnosis is made. It is important to note that Alzheimer's disease is *not a normal part of aging*.

What are the stages in the development of Alzheimer's disease?

Alzheimer's develops slowly, starting with mild memory problems and ending in death. The course the disease takes and how fast changes occur vary from person to person. The symptoms often progress through these stages: mild, moderate, and severe.

Signs of mild Alzheimer's can include:

- memory loss
- confusion about the location of familiar places
- taking longer to accomplish normal daily tasks
- trouble handling money and paying bills
- poor judgment leading to bad decisions
- loss of spontaneity and sense of initiative
- mood and personality changes
- increased anxiety

Signs of moderate Alzheimer's can include:

- increasing memory loss and confusion
- shortened attention span
- problems recognizing friends and family members
- difficulty with language, including problems with reading and writing
- difficulty working with numbers
- difficulty organizing thoughts and thinking logically

Signs of moderate Alzheimer's can also include:

- inability to learn new things or cope with new or unexpected situations
- restlessness, agitation, anxiety, tearfulness
- wandering -- especially in the late afternoon or at night
- repetitive statements or movement, occasional muscle twitches
- hallucinations and delusions, suspiciousness or paranoia, irritability
- loss of impulse control
- perceptual-motor problems

Symptoms of severe Alzheimer's include

- Inability to recognize family or loved ones
- Inability to communicate
- loss of sense of self
- weight loss
- seizures, skin infections, difficulty swallowing
- groaning, moaning, or grunting
- increased sleeping
- lack of bladder and bowel control
- total dependence on the caregiver

What other conditions have symptoms like Alzheimer's disease?

Tumors, strokes, severe depression, thyroid problems, medication side effects, nutritional disorders, and certain diseases can all have effects that mimic those of Alzheimer's disease. Early diagnosis increases the chances of treating these conditions successfully.

Is misplacing your keys a normal part of aging or could it be a symptom of Alzheimer's disease?

Problems with memory may be due to a variety of factors. It is normal for people of all ages occasionally to forget names, appointments, or where they put their keys. Such memory problems may result from stress, distractions, grief, fatigue, poor vision or hearing, use of alcohol, an illness, or trying to remember too many details at once.

Do we know what causes Alzheimer's disease?

Scientists do not yet fully understand what causes Alzheimer's disease. However, it is clear that Alzheimer's disease develops when a complex series of events in the brain gradually causes nerve cells in the brain to stop working and die. Age is the most important known risk factor for Alzheimer's disease.

How does your physician know if it is Alzheimer's disease?

Physicians can diagnose "possible" or "probable" Alzheimer's disease correctly up to 90 percent of the time. Physicians use several tools to diagnose "probable" Alzheimer's disease. These tools include a complete medical history and tests that measure memory, problem solving, attention, counting, and language abilities. Medical tests such as analysis of blood, urine, or spinal fluid are used to determine if the dementia has another cause.

Your physician may also request a brain scan. Brain scans allow the doctor to look at a picture of the brain to see if there is anything unusual -- such as evidence of strokes -- that could account for the dementia.

However, the only definite way to diagnose Alzheimer's disease is to find out whether there are plaques and tangles in brain tissue. To look at brain tissue, physicians must wait until they do an autopsy, which is an examination of the body done after a person dies.

Are there any steps I can take to prevent Alzheimer's?

There are no treatments, drugs, or pills that can prevent Alzheimer's disease, but people can take some steps *that may reduce* their risk. These include:

- lowering cholesterol and homocysteine levels
- lowering high blood pressure levels
- controlling diabetes

- exercising regularly
- engaging in activities that stimulate the mind
- A healthy diet is important. Although no special diets or nutritional supplements have been found to prevent or reverse Alzheimer's disease, a balanced diet helps maintain overall good health.

Research hasn't proven that these steps will lower the risk for Alzheimer's, and studies designed to directly test their ability to do so are currently in progress. However, all of these things are good to do anyway because they lower the risk for other diseases and help maintain and improve your overall health and well-being.

If a member of my family has Alzheimer's disease, am I at increased risk for developing it?

Two types of Alzheimer's disease exist: early-onset familial Alzheimer's disease or FAD, and late-onset Alzheimer's disease. Early-onset FAD is a rare, inherited form of the disease that occurs between age 30 and 60. Several members of the same generation of a family are often affected.

In late-onset Alzheimer's disease, which most often occurs after age 65, there is no obvious family pattern in most cases. Late-onset Alzheimer's disease develops for reasons that scientists are still trying to determine. Age is the most important known risk factor for Alzheimer's disease. Having a family member with Alzheimer's disease does increase the risk for developing late-onset Alzheimer's disease, but by no means guarantees that you will develop the disease.

Do mentally stimulating activities protect against Alzheimer's disease?

Studies have shown that keeping the brain active may be associated with a reduced risk of Alzheimer's disease. In a study with nuns, priests, and brothers known as the Religious Orders Study, researchers asked more than 700 participants to describe the amount of time they spent in seven mentally stimulating activities. These activities included listening to the radio, reading newspapers, playing puzzle games, and going to museums.

After following the participants for 4 years, researchers found that the risk of developing Alzheimer's was 47 percent lower on average for those who did

these mentally stimulating activities most frequently than for those who did them least frequently.

How is Alzheimer's disease treated?

No treatment is yet available that can stop Alzheimer's disease. However, for some people in the early and middle stages of the disease, the drugs Aricept®, Exelon®, or Razadyne® -- also known as Reminyl® -- may help prevent some symptoms from becoming worse for a limited time. Aricept® is also approved for severe symptoms of Alzheimer's. Memantine, also known by its brand name Namenda®, is approved for use in moderate to severe forms of the disease.

Also, some medicines may help control behavioral symptoms of Alzheimer's disease such as sleeplessness, agitation, wandering, anxiety, and depression. Treating these symptoms often makes people with Alzheimer's more comfortable and makes their care easier.

What can be done for behavioral problems?

At times, a person with a dementing illness may display behavior problems such as wandering, paranoia, suspiciousness, combativeness or resistance to maintaining personal hygiene. These behavioral problems can seem overwhelming to the caregiver. The physician may suggest various strategies to assist in daily caregiving tasks such as:

- Enrollment in the Alzheimer's Association's Safe Return Program, an identification program for memory impaired adults
- Modifying the person's environment in order to reduce confusion caused by overstimulation such as reducing noise and glare from windows
- Explaining a task before you do it such as saying, "I am going to help you put on your shirt."
- Providing a predictable routine at home with structured times for meals, bathing, exercise, and bedtime.
- Providing reassurance to the confused patient without challenging their accusations or misperceptions and by redirecting their attention

If it seems that suggested strategies are not helpful in managing the person's behavior, the physician may want to use medications to manage symptoms of depression, restlessness, hallucinations, hostility and agitation. Be prepared to provide the physician with accurate information regarding the behavior problem such as the onset of the behavior, the frequency of the behavior, the time of day the behavior occurs, and the strategies you have tried.

How can the physician help you plan for the future?

The physician may suggest you start planning for health care needs now by completing an advance directive. An advance directive is a legal document that a patient signs while capable of making sound decisions. It directs how healthcare treatment will be made in the event of future incapacity.

How can your physician support you?

Often persons with AD and their families have questions regarding the disease, legal and financial planning, community resources (i.e. home care, adult day care, respite services) and available support. Your physician can refer you to the appropriate agencies.

Additional information:

- Alzheimer's Association: 1-800-272-3900 - <http://www.alz.org>
- Alzheimer's Association, St. Louis Chapter - <http://www.alzstl.org>
- Alzheimer Research Forum - listing of many websites for further information on Alzheimer's. - <http://www.alzforum.org>
- Alzheimer's Disease Education and Referral Center (ADEAR) - <http://www.alzheimers.org>
- Alzheimer's Page - Provided by Washington University -St. Louis, Missouri - <http://alzheimer.wustl.ed>

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