

# Alzheimer's disease

**Alzheimer's disease is the most common form of dementia accounting for about two-thirds of all cases. This help sheet describes the symptoms of Alzheimer's disease as well as its causes, progression and treatment.**

## What is Alzheimer's disease?

Alzheimer's disease is a physical condition which attacks the brain affecting memory, thinking and behaviour. It is named after Alois Alzheimer, the German doctor who, in 1907, first described it.

In Alzheimer's disease, abnormal material builds up as 'tangles' or twisted fibres in the centre of the brain cells and 'plaques' or hard bits of protein material outside the brain cells. These disrupt messages inside the brain and damage connections between brain cells. The brain cells eventually die and this means that information cannot be remembered. As Alzheimer's disease affects each area of the brain, certain functions or abilities are lost. Memory of recent events is often the first to be affected, but as the disease progresses, long-term memory is also lost. The disease also affects many of the brain's other functions and this means other types of thinking and behaviour are affected. Once an ability is lost it can rarely be regained or relearned.

## Who gets Alzheimer's disease?

Alzheimer's disease can affect adults at any age, but usually occurs after age 65. The likelihood of getting dementia rises with age.

Some people with Alzheimer's have a family history of the disease, but most do not. It is possible that some people may inherit a greater or lesser likelihood than others to develop the disease later in life. One gene, carried by 25% of the Australian population, is known to be associated with a slightly increased risk of late onset Alzheimer's disease. Even so, half the people who carry that gene who live to be 85 do not have Alzheimer's disease at that age. There are other risk factor genes and environmental factors that might make Alzheimer's

disease more or less likely. Risk factors for developing the condition include a history of a severe head injury in earlier life, and having diabetes, high cholesterol or high blood pressure.

Studies show that Aboriginal people are more likely to develop Alzheimer's disease than non-Aboriginal Australians and possibly at an earlier age. This is thought to be due to lifestyle and environment factors such as poor diet and lack of access to education.

**Familial Alzheimer's disease** is a less common form in which the disease is passed directly from one generation to another. Symptoms occur at a relatively young age, usually in the 50s but sometimes younger. This type of Alzheimer's disease affects a very small number of people in Australia.

## **What are the symptoms?**

In the early stages, the symptoms of Alzheimer's disease can be very hard to see. However, it often begins with lapses in memory and difficulty in finding the right words for everyday objects.

Other symptoms may include:

- Persistent and frequent memory difficulties, especially of recent events
- Repeatedly saying the same thing
- Vagueness or hard to follow in everyday conversation
- Not wanting to do things that used to be enjoyed
- Taking longer to do every day jobs
- Forgetting well-known people or places
- Not able to understand questions and instructions
- Deterioration of social skills
- Emotional unpredictability or 'mood swings'

Symptoms vary and the disease progresses at a different pace according to the individual and the areas of the brain affected. A person's abilities may change for the better or the worse from day-to-day, or even within the one day, and can become worse in times of stress, fatigue or ill-health. For the person experiencing the symptoms, the very nature of the changes within the brain may mean that he or she is unable to recognize that there are any changes.

## **What causes Alzheimer's disease?**

Researchers are rapidly learning more about the chemical changes that damage brain cells in Alzheimer's disease, but apart from the few people with Familial Alzheimer's disease, it is not known why certain people get Alzheimer's disease and others do not. A variety of suspected causes are being investigated, including factors in the environment, biochemical (chemicals inside the body) disturbances and immune processes. The cause may vary from person to person and may be due to one factor or a number of factors.

## **How is Alzheimer's disease diagnosed?**

Currently there is no single test to identify Alzheimer's disease. The diagnosis is made after careful clinical consultation. The clinical diagnosis might include a detailed medical history, a complete check-up of the body and brain, tests of intellectual function (ability to think), a psychiatric assessment to check for any mental illness, and perhaps blood and urine tests.

These tests will help to eliminate other conditions with similar symptoms such as poor diet or depression. After eliminating other causes, a clinical diagnosis of Alzheimer's disease can be made. The diagnosis can only be confirmed after death by examination of the brain tissue.

New techniques for detecting the presence of Alzheimer's disease are becoming available. These new techniques mean that Alzheimer's disease can be diagnosed even before symptoms begin, which will become very important in the future when we have treatments that can stop the disease.

It is important to have an early and accurate diagnosis to find out whether the condition is caused by Alzheimer's disease or whether a different condition requiring its own specific treatment is causing the symptoms.

## **How does Alzheimer's disease progress?**

How fast Alzheimer's gets worse is different from person to person. However the disease does lead eventually to complete dependence and finally death. A person may live from three to twenty years with Alzheimer's disease, with the average being seven to ten years.

## **Is there treatment available?**

At present there is no cure for Alzheimer's disease. However, some drugs appear to help people with Alzheimer's disease think more clearly for longer. Drugs may also be prescribed for other symptoms such as restlessness or depression, or to help a person with Alzheimer's disease sleep better. Non-drug therapies, such as music therapy or exercise, can also help people with Alzheimer's disease.

Support is available for the person with Alzheimer's disease, their families and carers. This support can make a positive difference to managing the condition. Dementia Australia provides support, information, education and counselling for people affected by dementia. Up to date information about drug and non-drug treatments is also available from Dementia Australia.

### **Further Information**

Dementia Australia offers support, information, education and counselling. Contact the National Dementia Helpline on **1800 100 500**, or visit our website at **[dementia.org.au](http://dementia.org.au)**



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