

# Alcohol-Related Brain Damage - *Factsheet*

**Dementia web**   
Information resource for carers, professionals and you

[www.dementiaweb.org.uk](http://www.dementiaweb.org.uk)



# Alcohol-Related Brain Damage

## Alcohol-Related Brain Damage

Dementia is not an illness in itself, but a term for a collection of conditions and diseases which cause disorders in the brain. Excessive drinking over a period of years has been shown to cause dementia-like problems with memory, learning and other cognitive skills.

There are 2 identified disorders which may occur independently or together.

## Wernicke's encephalopathy & Korsakoff's syndrome (Wernicke-Korsakoff syndrome)

### Explanation and symptoms

These brain disorders usually result from the effects of heavy alcohol consumption, although in very rare cases there might be other causes, such as rapid weight loss, bowel obstruction or severe vomiting during pregnancy. Where alcohol is implicated, it is heavy misuse of alcohol over a long period rather than "binge" drinking which is particularly dangerous.

Wernicke's encephalopathy is a brain disorder caused by a lack of thiamine. Thiamine is Vitamin B1, found in whole grains, pasta, lean meats, fish, fortified cereals, peas and beans. Thiamine helps the body to convert carbohydrates into energy and is also crucial in the functioning of the heart, nervous system and muscles. A lack of thiamine affects the brain and nervous system.

Many heavy drinkers severely neglect their nutrition. They often have a totally inadequate diet and sometimes vomit frequently. Alcohol can also cause damage to the stomach lining, which prevents the absorption of vitamins. Vitamin stores in the body are therefore dangerously depleted. Wernicke's encephalopathy can come on very rapidly and if treatment is not given quickly brain damage may result, or the person may even die. The symptoms can easily be taken for inebriation, and so they can often be missed.

### They are:

- Drowsiness
- Confusion
- Double vision
- Poor balance, staggering gait or inability to walk
- Jerky eye movements or paralysis of the muscles of the eyes

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Wernicke's encephalopathy and Korsakoff's syndrome are related but separate disorders. Many, but not all people who experience Wernicke's go on to develop Korsakoff's – usually because they have not received treatment or have not received it quickly enough. It is estimated that about 65% of people who survive Wernicke's encephalopathy will go on to develop Korsakoff's syndrome. However, not every case of Korsakoff's syndrome is preceded by an episode of Wernicke's encephalopathy.

Korsakoff's syndrome is not strictly speaking a dementia – in most dementias there is damage to a large area of the outer part of the brain, and a wide range of abilities is affected. People with Korsakoff's syndrome develop brain damage in important small areas in the mid part of the brain resulting in severe short-term memory loss especially memories of events which have occurred since the onset of the disorder. This may be the only problem that the person experiences and they may retain all their other skills and abilities.

## Other symptoms include:

- Difficulty in learning new skills or acquiring new information,
- Apathy, or sometimes, talkative and repetitive behaviour,
- Lack of insight into the condition, including lack of awareness of the gaps in memory,
- A tendency to confabulate – ie, make up events to fill the gaps in memory.
- Korsakoff's syndrome can develop very slowly, usually affecting men with a long history of alcohol abuse aged between 45 and 65. Women can also be affected, and have been found to develop the problem slightly earlier, due to their greater vulnerability to alcohol.

## Treatment

Treatment for Wernicke's encephalopathy consists of high doses of thiamine injected into a vein or muscle. This can reverse the symptoms rapidly, but if treatment is not given in time, or the symptoms are not recognised, the person is likely to suffer irreversible brain damage and may die.

The progress of Korsakoff's syndrome can be halted if people abstain from alcohol, eat healthily and take vitamin supplements. Once the brain damage has occurred, it is unlikely that it will be reversed, but it may not worsen. People with Korsakoff's syndrome remain at risk of further episodes of Wernicke's if they continue to drink alcohol.

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## Diagnosis

A diagnosis cannot be obtained until the person has abstained from alcohol for at least four to five weeks. This is because the acute symptoms of alcohol withdrawal must subside before tests can be carried out. The person will undergo physical examinations and psychological tests and laboratory tests will be carried out, to exclude other possible conditions. The person will also be observed over a period to determine whether abstinence from alcohol and treatment with thiamine will result in an improvement. If it does not, it might be that they have some other form of dementia. However, it is possible to have both Korsakoff's syndrome and a dementia.

## What will happen?

The prognosis varies from person to person. An improvement usually takes place over a period of about two years. If the person continues to drink heavily and to neglect their nutrition, Korsakoff's syndrome will progress. However, it is thought that about a quarter of those affected will make a good recovery and be able to manage with support. About half will make a partial recovery. They may find life difficult because their family and friends may have been unable to cope with their drinking and may have retreated. They may remain confused, and have liver damage or other physical problems. They may need to live in residential care, but find themselves in an unsuitable environment, because few homes cater for younger people who have retained skills but have problems with short term memory loss.

A quarter of those affected will not make any recovery, and are likely to need long term residential or nursing care.

If moving into a care home is seen to be in the person's best interests, independent reports and quality ratings on all homes in your local area can be found on the website of the Care Quality Commission which regulates them. [www.cqc.org.uk](http://www.cqc.org.uk) (use its webform)

Or telephone 8.30 am to 5.30 pm Monday to Friday on 03000 616161.

You can also refer to our factsheet: "Moving to a Care Home and Funding Your Care".

## What to do

If you think someone is showing the symptoms of Wernicke's encephalopathy it is important to alert emergency services since they need immediate hospital treatment.

Otherwise, the GP will be the first port of call and can arrange for tests to be carried out. However, as explained earlier, the person will need to abstain from alcohol for some weeks before this can be done.

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If you are concerned that someone is suffering from a chronic shortage of vitamin B but you cannot persuade them to seek medical help, you could try to get them to take a commercial supplement. A B-complex supplement pill should be taken in accordance with the recommendations on the packet.

Everyone needs to eat a varied diet, with at least five portions of fresh fruit and vegetables daily. Vitamin B1 is found in brown rice, egg yolks, fish, lean pork or ham, beans, peas, wheat germ – and Marmite as well as the foodstuffs mentioned on Page 1. Do not believe the myth that drinking real ale will provide sufficient vitamin B1 because of the brewer's yeast it contains. The alcohol in real ale slows the absorption of the vitamin to such an extent that there is a net loss.

It is worth remembering that caffeine, contained in tea as well as coffee, can also affect the absorption of vitamin B1. So tea or coffee should not be drunk within two hours either side of taking a supplement, and consumption of caffeine in general should be reduced.

Guideposts Trust provides specialist information and care services for people with dementia and their carers. [www.dementiaweb.org.uk](http://www.dementiaweb.org.uk)

Contact the Helpline number: **0845 1204048** available Monday to Friday office hours, answer service at other times or by email at [info@dementiaweb.org.uk](mailto:info@dementiaweb.org.uk)

Carers UK provides advice and information to carers and the professions who support carers.

Carers UK Adviceline: **0808 808 7777** (Wednesday and Thursday 10am to 12pm and 2pm to 4pm)

Email: [adviceline@carersuk.org](mailto:adviceline@carersuk.org)

Website: [www.carersuk.org](http://www.carersuk.org)

## Alcohol Concern

64 Lemman Street

London E1 8EU

Telephone: **020 7264 0510**

Email: [contact@alcoholconcern.org.uk](mailto:contact@alcoholconcern.org.uk)

Website: [www.alcoholconcern.org.uk](http://www.alcoholconcern.org.uk)

The national agency on alcohol misuse. Works to reduce the incidence and costs of alcohol-related harm, and to increase the range and quality of services available to people with alcohol-related problems.

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## Dementia Information Service for Carers

Helpline Number **0845 4379901**

Call in normal office hours. Answer phone at other times.

Email: [info@dementiawebwarwickshire.org.uk](mailto:info@dementiawebwarwickshire.org.uk)

Web: [www.dementiawebwarwickshire.org.uk](http://www.dementiawebwarwickshire.org.uk)

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