

ALCOHOL RELATED DEMENTIA

This Help Sheet discusses alcohol related dementia, their causes, symptoms and treatment.

What is alcohol related dementia?

Dementia describes a syndrome involving impairments in thinking, behaviour and the ability to perform everyday tasks. Excessive consumption of alcohol over many years can sometimes result in brain damage that produces symptoms of dementia. Alcohol related dementia may be diagnosed when alcohol abuse is determined to be the most likely cause of the dementia symptoms.

The condition can affect memory, learning, reasoning and other mental functions, as well as personality, mood and social skills. Problems usually develop gradually. If the person continues to drink alcohol at high levels, the symptoms of dementia are likely to get progressively worse. If the person abstains from alcohol completely then deterioration can be halted, and there is often some recovery over time.

Excessive alcohol consumption can damage the brain in many different ways, directly and indirectly. Many people dependent on alcohol demonstrate brain shrinkage, which may be caused by the toxic effects of alcohol on brain cells. Alcohol can also cause heart problems that reduce blood supply to the brain and damage cells. People who chronically use alcohol to excess often demonstrate deficits in memory, thinking and behaviour, though these are not always severe enough to warrant a diagnosis of dementia.

An affected person is likely to experience a variety of symptoms not all typical of other forms of dementia.

What is Wernicke-Korsakoff syndrome?

Thiamine deficiency is common in people who consume excessive amounts of alcohol. This is because many heavy drinkers have poor nutrition, their diet does not contain enough essential vitamins, and because excessive alcohol can inflame the stomach lining and impede the body's ability to absorb vitamins. Thiamine (vitamin B1) helps brain cells produce energy from sugar. When thiamine levels are too low, cells are unable to generate enough energy to function properly.

Wernicke's encephalopathy and Korsakoff's syndrome are conditions that are both due to brain damage caused by a lack of thiamine. While they can also occur as a result of other conditions, the most common cause is alcohol abuse. These conditions produce symptoms similar to dementia including memory loss and confusion. While Wernicke-Korsakoff syndrome is sometimes referred to as alcoholic dementia or alcohol related dementia, it is caused by thiamine deficiency, rather than being a direct result of alcohol abuse.

Wernicke's encephalopathy affects eye movement and vision, balance and coordination, and causes confusion. If not treated quickly, Wernicke's encephalopathy can cause permanent brain damage and be followed by the ongoing symptoms of Korsakoff's syndrome. This condition results in severe short-term memory loss.

Wernicke's encephalopathy

Wernicke's encephalopathy usually develops suddenly. The common symptoms and signs are not always present, so diagnosis may be difficult.

Typical symptoms include:

- Jerky eye movements or paralysis of muscles moving the eyes or double vision
- Loss of muscle coordination, poor balance, staggering or inability to walk
- Confusion

If Wernicke's encephalopathy is suspected, immediate treatment is essential. Treatment consists of high doses of thiamine. If treatment is carried out in time, most symptoms should be reversed. However, if Wernicke's is left untreated, or treatment is delayed, permanent brain damage may result, especially in deeper parts of the brain or the person may die.

Korsakoff's syndrome

Korsakoff's syndrome may follow inadequately treated Wernicke's encephalopathy. However, it is not always preceded by Wernicke's encephalopathy; it can develop, usually gradually, on its own. Brain damage occurs in areas of the brain important for short-term memory.

The main symptom is memory loss – particularly of events occurring after the onset of the condition. Sometimes, memories of the more distant past can also be affected. Many other abilities may remain intact.

Symptoms of Korsakoff's syndrome can include:

- Inability to form new memories or learn new information
- Personality changes
- Making up stories to fill gaps in memory (confabulation)
- Seeing or hearing things that aren't really there (hallucinations)
- Lack of insight into the condition

If the person continues to drink heavily and has poor nutrition, Korsakoff's symptoms will worsen over time. This progression can be halted if the person completely abstains from alcohol, adopts a healthy diet and takes vitamin supplements. Thiamine supplementation may help prevent further brain damage from occurring if the person continues drinking.

The prognosis for someone with Korsakoff's syndrome depends on how soon treatment begins and how much brain damage has already been done. Any improvement usually occurs within a period of up to two years after stopping drinking. Some symptoms, especially the loss of memory and thinking skills, may be permanent. People usually retain skills that they acquired before developing the disorder, so they are often able to manage with appropriate support. Some unfortunately make no recovery and may need long-term care.

Who gets alcohol related dementia or Wernicke-Korsakoff syndrome?

Anyone who drinks excessive amounts of alcohol over a period of years may develop these conditions, but most do not. It is not known why some very heavy drinkers develop dementia or Wernicke-Korsakoff syndrome while others do not. Diet and other lifestyle factors may play a role.

These conditions most commonly affect men over the age of 45 with a long history of alcohol abuse, though men and women of any age can be affected. The risk clearly increases for anyone who drinks high levels of alcohol on a regular basis for a long time.

The Ministry of Health recommends that to reduce the risk of long term health problems related to alcohol, women should drink up to 2 standard drinks a day (no more than 10 standard drinks a week) and men a maximum of 3 standard drinks a day (no more than 15 standard drinks a week) and have at least 2 alcohol-free days every week.

What about moderate alcohol consumption?

It must be remembered that these conditions are associated mostly with regular heavy alcohol consumption over many years. In contrast, moderate alcohol drinking can actually be beneficial for brain health and is associated with a reduced risk of developing dementia due to Alzheimer's disease or other causes as long as the above recommendations are followed.

Further support for people with problems with alcohol

A range of treatment options are available to help people who have problems with alcohol. Prompt treatment is important for people who develop changes in brain function.

Talk to your doctor for advice and referrals, visit www.alcoholdrughelp.org.nz or call 0800 787 797.

This publication provides a general summary only of the subject matter covered. People should seek professional advice about their specific case. The content was adapted from Alzheimer's Australia who have generously consented to their work being used. Written and peer reviewed: 2017 by Dr Chris Perkins and Dr Richard Worrall, Psychiatrists of Old Age. Reviewed by Dr Tina Crownshaw, Psychiatrist of Old Age 2023.

Dementia New Zealand offers support, information and education.

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