

There are currently more than 55 million people worldwide with a diagnosis of dementia. Not only is excessive alcohol consumption one of the risk factors for developing or exacerbating dementia symptoms, but it may also play a more causative role in specific types of dementia. These include alcohol-related dementia, or alcohol-induced dementia, and Wernicke-Korsakoff syndrome, also known as 'wet brain.' Recently, the detrimental effects of excessive alcohol consumption have been brought to public attention after Wendy Williams was diagnosed with frontotemporal dementia, which may be linked to her struggle with alcohol addiction.

What is alcohol-related dementia (ARD)?

Alcohol intake in moderation for older adults is a maximum of two drinks per day in men and a maximum of one drink per day in women. However, research shows that people who [drink excessively over a prolonged period](#) are at a greater risk of developing ARD, also known as alcoholic dementia.

At this level of consumption, the genuine danger of **alcohol-induced brain damage** is possible, causing cognitive impairment. Also called alcohol-induced major neurocognitive disorder, people with increased alcohol intake tend to have inadequate dietary intake of thiamine. Thiamine deficiency is associated with chronic excessive alcohol intake and is responsible for severe neurological symptoms related to ARD.

Thiamine deficiency is not the only risk factor for ARD. [Alcohol misuse can damage brain cells](#) due to alcohol's toxic effects and contribution to cerebrovascular disease. The alcohol addiction cycle of bingeing and then withdrawing also places immediate stress on the brain, impairing cognitive function. Moreover, people with alcohol addiction may have more falling cases, which can lead to head trauma.

Cognitive signs of alcohol-related dementia

Signs of dementia related to excessive alcohol consumption are similar to other types of dementia, but some core features of alcoholic dementia are more evident:

Short-term memory problems. Repeating the same stories, having trouble remembering recently learned things, and forgetting/missing important events or appointments.

Language difficulty. Finding the right words or substituting inappropriate words.

Difficulty with motor tasks that a person used to do quickly, like cooking a meal, dressing up, or repairing a structure.

Difficulty planning or organizing. Repeatedly misplacing items, such as a wallet, keys, or essential documents.

Difficulty making decisions and solving problems.

Neurological signs of alcohol-related dementia

Besides the aspects mentioned above, there are neurological signs prominent in alcohol-related dementia:

- Abnormal eye movements (nystagmus)
- Loss of muscle coordination (ataxia)
- Loss of muscle strength
- Decreased reflexes (hyporeflexia)
- Increased heart rate (tachycardia)
- Decrease body temperature (hypothermia)
- Hallucinations
- Confusion
- Making up stories (confabulation)

While not exclusively associated with alcohol abuse, another type of dementia frequently linked to excessive and prolonged alcohol intake is Wernicke-Korsakoff syndrome, also referred to as 'wet brain.'

Wet brain: Wernicke-Korsakoff syndrome (WKS)

This syndrome occurs **when a person’s brain is deficient in thiamine (vitamin B1)**. Thiamine is vital in producing energy from glucose consumption. WKS is most common in people with chronic, prolonged alcohol intake (alcohol use disorder) and most often occurs in men over 40.

The use of alcohol irritates the gastric mucosa, causing a disturbance in the absorption of vitamins and other nutrients, including thiamine. Estimations report that 80% of people with alcohol addiction have a thiamine deficiency. In addition, [other conditions can lead to WKS](#), including malabsorption syndromes, poor nutrition, cancer, HIV, and chronic infections.

WKS is a neurological disorder and occurs in two stages: Wernicke’s encephalopathy (WE) and, if left untreated, progression into Korsakoff syndrome.

Wernicke’s encephalopathy is an acute brain reaction due to the severe decline of thiamine. This can result in oculomotor abnormalities, such as abnormal involuntary eye movements (nystagmus), loss of muscle and muscle coordination (ataxia), and confusion. WE is a medical emergency that [may respond to injectable thiamine](#). Unfortunately, due to irreversible brain damage, some people will die, and around 85% will likely develop Korsakoff syndrome.

Korsakoff syndrome, most times, but not always, follows Wernicke’s encephalopathy. It is characterized by personality changes and memory loss, which affects the ability to form new memories. In addition to that, confabulation follows, where a person makes up elaborate stories to cover the gaps in their memory.

Diagnosis

If you or your loved one has a cognitive impairment related to alcohol consumption, an appointment with your medical practitioner is paramount for a clinical diagnosis. A medical assessment, including **lab tests, radiological imaging, and cognitive screening**, will help to determine the cause of the decline. Treatment will depend on whether the reason is alcohol-related or from another source, such as vascular dementia or Alzheimer’s. A referral to a neurologist or geriatrician may also follow to determine the best course of treatment.

Treatment

A person with alcohol-related dementia may slow the progression or even improve cognition if they reduce or eliminate alcohol consumption. If they continue to drink, their cognitive decline will be progressive and most likely worsen.

The withdrawal from alcohol can take several weeks and needs to be under medical supervision in a controlled environment. Medications, **including large doses of thiamine**, will assist in reducing the risk of the medical complications of withdrawal.

Additionally, improving nutritional intake by eating a more balanced diet is also a critical factor in treatment. Counseling and talk therapies for you and your loved one will help with coping and strategies in the withdrawal process. Support groups can also be beneficial.

Dementia with alcohol addiction

When someone with an alcohol addiction develops dementia, such as Alzheimer’s, it presents another challenge. This group represents people who will likely have an [accelerated decline in their cognitive function](#) due to heavy alcohol consumption.

Check with your healthcare provider on strategies to possibly wean down the amount of alcohol by efforts such as replacing it with non-alcoholic beer and wine alternatives. When someone with an alcohol addiction has a sudden stoppage in alcohol levels, it can result in a medical emergency, including delirium tremens or cardiac complications.

Alcohol addiction can be the root cause of dementia or worsen an already diagnosed or underlying dementia. In either case, reducing or withdrawing alcohol is the key factor to lowering complications or, in some cases, improving cognitive status. Contacting your healthcare provider is the first step.

Dealing with a loved one with addiction is challenging. Contacting your medical practitioner, a private counselor, or organizations such as [Al-Anon](#) or your local Alzheimer’s Association can provide the needed support and strategies you need to help you and your loved one in recovery.

Key takeaways:

- ➔ Excessive, prolonged alcohol intake increases the risk of developing cognitive impairment, leading to alcohol-related dementia.
- ➔ Alcohol-related dementia, unlike other types of dementia, may not be progressive if the person reduces or withdraws from alcohol.
- ➔ Wernicke-Korsakoff syndrome (WKS), also known as 'wet brain,' is a neurological syndrome of memory loss and confusion caused by thiamine deficiency.
- ➔ In the withdrawal from alcohol, someone with a history of prolonged excessive intake must be under direct medical supervision and may take weeks to withdraw safely.
- ➔ Alcohol addiction in a diagnosed dementia such as Alzheimer’s can accelerate cognitive decline if someone continues to consume alcohol.

Resources:

1. [Alcohol-related dementia and neurocognitive impairment: a review study.](#)
2. [COVID-19 pandemic and alcohol consumption: impacts and interconnections.](#)
3. [Diagnosis and treatment of Wernicke's encephalopathy: a systematic literature review.](#)
4. [Wernicke-Korsakoff syndrome not related to alcohol use: a systematic review.](#)
5. [Clinical and pathological features of alcohol-related brain damage.](#)
6. [The association between alcohol use and the progression of Alzheimer's disease.](#)