



ALCOHOL  
and you

# ALCOHOL RELATED BRAIN DAMAGE (ARBD)

This fact sheet will help you get a better understanding of Alcohol Related Brain Damage, how it can present, what causes it and how someone with ARBD can be helped. There is also information for family members.

## → What is Alcohol Related Brain Damage (ARBD)

Alcohol Related Brain Damage (ARBD) describes actual damage to the structure and function of the brain due to long-term heavy drinking and poor nutrition. It is an umbrella term which includes many different syndromes.

## → How does alcohol damage the brain?

- Alcohol itself is toxic in large amounts
- Long-term heavy drinking damages brain cells

### Depletion of vitamin B1:

Vitamin B1 (thiamine) is essential for the brain to function normally. A combination of heavy drinking and poor diet can lead to a deficiency in Vitamin B1. When levels of Vitamin B1 are too low, serious damage to the brain can occur. A severe lack of Vitamin B1 can lead to a medical emergency called Wernicke's-Encephalopathy. If not treated in time, it can cause death or can lead to the development of more permanent ARBD (Commonly known as Korsakoff's syndrome).

### Heavy drinkers often don't eat very well:

Heavy drinkers often swap food for alcohol and don't eat well. At the same time alcohol itself has carbohydrate in it which needs B12 to break it down. Alcohol can also cause inflammation of the guts (gastritis) and vomiting, both of which mean that heavy drinkers may not be able to absorb B12. All of these things mean B12 can be at very low levels.



### Liver damage:

Alcohol can damage the liver, which breaks down toxins in the body. If the liver is not working properly, toxins stay in the body for longer and this can damage the brain.

### Drunkenness can lead to falls and fights:

Many heavy drinkers have frequent falls or other head injuries. The medical term for this is traumatic brain injury, and around 25% of people with ARBD have this kind of injury.

### Alcohol withdrawal can also damage the brain:

When someone is dependent on alcohol and suddenly stops drinking without medical supervision, it can cause damage to the brain as the body's chemistry tries to re-adjust to not having alcohol.



All these causes of Alcohol Related Brain Damage are related to heavy and regular drinking

## → Who is at risk of developing ARBD?

Research shows that in some cases, men who regularly drink more than 35 units of alcohol a week and women who drink more than 28 units of alcohol a week for a period of five years or more are at risk.

**This equates to around 3½ BOTTLES OF WINE or 14 PINTS OF LAGER in a week for a man, and just less than 3 BOTTLES OF WINE or about 11 PINTS OF LAGER for a woman.**

The recommended maximum alcohol use for adults (men or women) in the UK is 14 units per week, spread over three or more days and with several alcohol free days each week.

### People may be particularly at risk if they:

- Have frequent 'memory blackouts' while drinking.
- Have alcohol-related liver damage.
- Have had a lot of withdrawals or detoxes.
- Binge drink regularly.
- Don't eat enough while drinking.
- Have been admitted to hospital because of their drinking.

**Because a woman's brain and body is more vulnerable to the effects of alcohol, women develop ARBD earlier than men.**

Some cases reported as early in the 20's

## → Specific ARBD Syndromes

### Wernicke-Korsakoff's Syndrome

Wernicke's Encephalopathy is a deterioration of brain tissue, and the symptoms include confusion and disorientation, abnormal eye movements, blurred vision, and poor balance (walking unsteadily). It should be treated as a medical emergency and can be effectively treated with large doses of Thiamine, if caught early. People with Wernicke's Encephalopathy often appear drunk, even if they've had very little to drink. This is why it can often go undiagnosed and can easily be missed. Therefore it is important that for every case where the condition is remotely suspected, treatment with Thiamine should be given. The treatment itself has very few side effects and is cheap yet can be life saving.

Some patients who experience Wernicke's Encephalopathy go on to develop Korsakoff's Psychosis. The symptoms of this include more permanent memory loss, apathy, and confusion about where they are and about the passage of time. Sometimes patients with Korsakoff's will have such severe memory loss that they can no longer cope with living independently.

### Frontal Lobe Syndrome

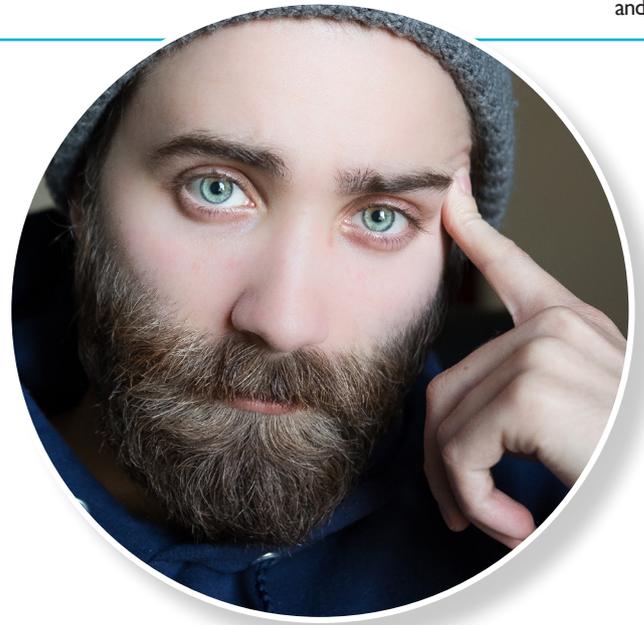
Damage to the frontal lobe leads to problems controlling impulses, making decisions, discussing goals, planning, problem solving, assessing risk and prioritising activities. This means a person may struggle to engage with services or make their appointments.

### Cerebella Syndrome

The cerebellum is at the back of the brain and controls co-ordination. Damage to this area can mean poor coordination, unsteady and broad based walking as well as tremor and other associated symptoms.

Quite often a person doesn't fit neatly into a definite syndrome and has symptoms from many different areas. This is why the broader term "Alcohol Related Brain Damage" is used.

# → What are the signs and symptoms



## Cognitive and memory symptoms

### Memory loss

– a person is unable to remember things.

### Difficulty with familiar tasks

– a person may struggle with everyday tasks.

### Difficulty in processing new information

– not being able to recall times, dates or to remember people they've just met.

### Depression and irritability

– this can include apathy, a lack of interest and a lack of spontaneity or motivation.

### Poor judgement and loss of inhibition

– a person may be too trusting of strangers or respond inappropriately, for example by removing their clothes in public.

### Problems with language

– there may be difficulties in remembering words, people's names, or forgetting the end of a sentence halfway through.

### Erratic behaviour

– carers of people with ARBD often find this the most difficult thing to cope with. A person may have rapid mood swings, become aggressive or even violent, or behave out of character.

They may also have no insight into how they're behaving and the effect it is having on themselves or others.

### Difficulty concentrating

– it can be hard for people with ARBD to focus on one thing for more than a few minutes.

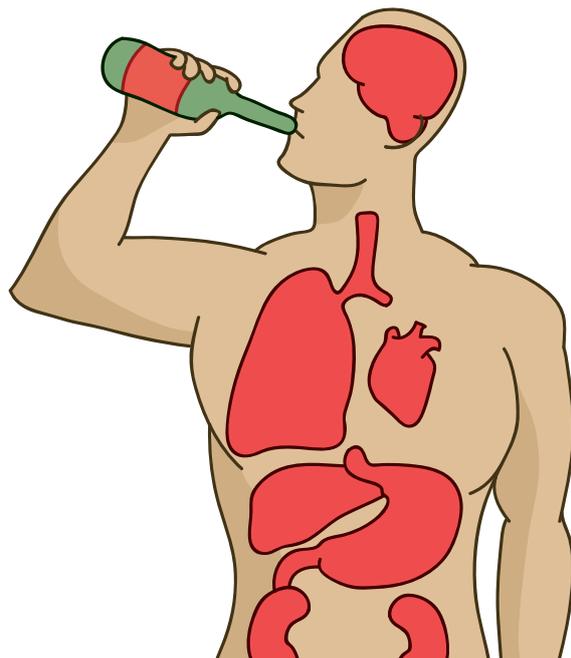
### Poor choices and decision-making

- they may have difficulty in weighing up options or making sensible decisions. They may also be vulnerable to manipulation and abuse.

## Physical problems

There may also be physical signs of the damage to the body such as:

- Damage to the liver, stomach and pancreas can affect brain function.
- Pins and needles and numbness or burning sensation in arms and legs- can increase the risk of falls and accidents.
- Slow, wide, stumbling gait (ataxia) – this can make walking difficult.
- Poor temperature control, muscle weakness and disturbed sleep patterns – caused by shrinkage of the brain and by tissue damage.



**One reason ARBD may not be diagnosed in a drinker is that its symptoms can appear very much like drunkenness.**

## → Can ARBD be prevented?

### Vitamin B1/Thiamine

Given that lack of Thiamine is one of the causes of ARBD it is important for it to be replaced. This is especially important during an alcohol detox, which can be a vulnerable time for the brain.

Doctors use a solution called Pabrinex® which is given as a drip. Thiamine can also be prescribed by your GP in tablet form. These tablets are important but when stores of Thiamine are really low they would not be enough to replace it and that's when the drip or injection is required.

It is also important to seek advice from your doctor if you do not have a good diet. Adequate nutrition is a key factor in preventing ARBD.



It is important to seek help for alcohol dependence. A good first step would be to discuss this with your GP and they can direct you to the appropriate alcohol services.

It is important to remember that you should never stop drinking suddenly as this can lead to severe alcohol withdrawal which is dangerous. It is best to seek support and advice to guide you on how to reduce and stop drinking.

## → What is the Treatment for ARBD?

The mainstay of treatment involves maintaining total abstinence from alcohol. Good nutrition is also essential and Thiamine should be replaced.

There is also new research to show that re-learning skills of everyday life that may have been lost through ARBD can be achieved by re-training your brain (Rehabilitation). This is similar to how people recover from traumatic brain injuries.

This requires input from professional services that have developed in the UK and have shown good outcomes. It is hoped that services in Northern Ireland will improve so that more patients with ARBD can be diagnosed and receive appropriate treatment.



By remaining abstinent and maintaining a balanced diet, a person may recover their brain functions over a period of several months or years.

#### It is estimated that:

25% of people will make a full recovery.

25% will make a significant recovery.

25% will make a partial recovery.

25% of people unfortunately, will make no recovery and will have permanent difficulties.

Younger people seem to have a better chance of recovery.

If the signs and symptoms of ARBD are identified earlier, this can improve a person's chances of recovery.



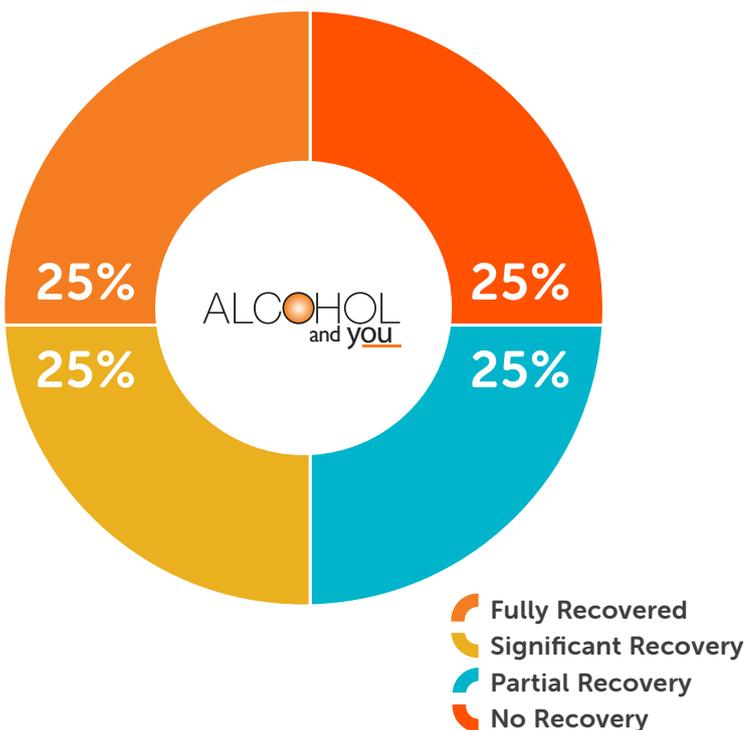
## → Can ARBD improve?

Some labelled ARBD a "Dementia" in the past for which there is no cure. It can be very similar in presentation to Dementia.

But very importantly, it is now known not to be a true Dementia. ARBD can get better if a person stops drinking and avails of the correct treatment.

In fact, up to 75% of people will make a full or partial recovery.

## Recovery following ARBD



**In the majority of cases, ARBD is reversible (to different degrees) if a person remains alcohol free**



## → A note for family members

One of the greatest impacts of an Alcohol-Related Brain Damage is the devastating effect it can have on the family.

By the time the person receives their diagnosis, the family will already have been through many difficulties with their loved one.

### The family members may have:

- A partner/spouse/father/mother who was physically or emotionally unavailable to them because of their drinking
- Struggled to cope financially due to the person's drinking
- Taken on all of the caretaking roles for the family leading to exhaustion and resentment
- Tried to protect the loved one or hide the problem from other people
- Experienced verbal or physical abuse as a result of alcohol use
- Watched someone they love physically and psychologically deteriorate over many years
- Always expected the 'unexpected' - waiting for the phone to ring to hear something has happened to the person
- Left the family home due to concerns over personal and children's safety



For the children of the family, the development of this condition may have followed them through their childhood, into their teenage years and may be with them for much of their adult lives.

# → Getting support

It is important to say there is support for you in your own right.

Each of the five Health Trust areas has a community based service (step 2) that provides individual family support.

For a directory of services for family members and how to contact them see.

[www.drugsandalcoholni.info](http://www.drugsandalcoholni.info)

For young people Steps to Cope is an intervention for 11-18 year olds

[www.stepstocope.co.uk](http://www.stepstocope.co.uk)

T: 0800 2545 123

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ARBD is a serious condition that if addressed early can be successfully treated.

- 2 in 100 people in the general public may develop Alcohol-Related Brain Damage
- 1 in 8 people who are dependent on alcohol may develop Alcohol-Related Brain Damage

The good news is that it can improve if the person can successfully achieve abstinence from alcohol.

If you are worried about your drinking see your GP or use the alcohol and drug services in your area which can be found at:

[www.drugsandalcoholni.info](http://www.drugsandalcoholni.info)

or see the Alcohol and You website that has self-help and a range of information and resources.

[www.alcoholandyouni.com](http://www.alcoholandyouni.com)

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