



## Acquired Brain Injury and Drugs (such as Alcohol)

### TRUE OR FALSE?

- Alcohol peps you up.
- Alcohol is a safe drug because it's legal.
- At least alcohol is safer than other drugs.
- Binging is a boy thing.
- It's OK as long as they don't drive. Most teen alcohol-related deaths are from drinking and driving.
- Teaching young people how to drink will stop them becoming problem drinkers.
- Blackouts are the same as passing out when you're drunk.<sup>1</sup>

(THESE ARE ALL FALSE)

### OTHER FACTS ABOUT ADOLESCENT ALCOHOL USE

- Alcohol kills developing brain cells
- Early alcohol use can cause a change in brain wiring.
- Alcohol can disrupt the ability to learn life skills.
- Alcohol affects teenagers' ability to achieve at school.
- Alcohol takes a greater toll on brain development in those under 21 than in any other group.
- There is a strong connection between alcohol consumption, self-harm and suicide.
- Parents who allow their children small amounts of alcohol in an attempt to instil safe drinking habits maybe setting them on the path to becoming binge drinkers.<sup>2</sup>

(THESE ARE ALL TRUE)

### ALCOHOL RELATED BRAIN INJURY

Acquired Brain Injury refers to any brain damage that happens after birth. Alcohol is one of the many causes of brain injury. The injury inflicted by alcohol related brain injury (ARBI).

More than 2,500 Australians are treated for ARBI every year. Just how much damage is done depends on a number of factors. These include individual differences, as well as the person's age, gender, nutrition and their overall pattern of alcohol consumption.

Alcohol is one of the most popular drugs in Australia, with around half of the population over 14 years of age drinking at least once a week.<sup>3</sup>

Alcohol related brain injury is more likely to occur if a person drinks heavily on a regular basis over many years. It is possible to develop ARBI over a short period of time, if the drinking is aggressive enough. This can be known as '**binge drinking**', which means more than four drinks at a time<sup>3</sup>.

1. Alcohol Use and Consumption,, ARBIAS Websute, <<<http://www.arbias.org.au/information-for-young-adults-and-parents/>>>, accessed on 14th October 2008.

2. Ibid.

3. Brain Injury Association of Tasmania, "Brain Injury I Sheet No.42"

4. BC News Website - June 15th 2008, <<<http://www.abc.net.au/news/stories/2008/06/15/2275181.htm>>>, accessed on 13th October 2008.



## **BRAIN INJURY CAN BE CAUSED BY ALCOHOL BECAUSE:**

- Has a toxic effect on the central nervous system.
- Results in changes to metabolism, heart functioning and blood supply.
- Interferes with the absorption of vitamin B1 (thiamine), which is an important brain nutrient.
- May be associated with poor nutrition.
- Can cause dehydration, which may lead to wastage of brain cells.
- Can lead to falls and accidents that injure the brain.

## **DISORDERS ASSOCIATED WITH ARBI**

ARBI is associated with changes in cognition (memory and thinking abilities), difficulties with balance and coordination, and a range of medical and neurological disorders. Some alcohol related disorders include:

- **Cerebellar atrophy** - the cerebellum is the part of the brain responsible for muscle coordination. Damage results in difficulties with balance and walking, which is called '*ataxia*'.
- **Frontal lobe dysfunction** - the brain's frontal lobes are involved in abstract thinking and planning. Damage results in cognitive difficulties.
- **Hepatic encephalopathy** - many people with alcohol related liver disease develop particular psychiatric symptoms, such as mood changes, confusion and hallucinations.
- **Peripheral neuropathy** - the extremities are affected by numbness, pain, pins and needles.
- **Wernicke's encephalopathy** - a disorder caused by a severe deficiency of vitamin B1. Some of the symptoms include ataxia, confusion and problems with vision.<sup>5</sup>

## **HOW DOES ARBI AFFECT YOUR FAMILY?:**

Parents, relatives and friends of people who are using alcohol or other drugs often feel as if they are riding on an emotional roller coaster. Significant and severe stress can be experienced over an extended period of time. Family members may feel isolated, powerless, angry, confused, ashamed and can become fatigued and at risk of their own health problems <sup>y</sup>

## **WHAT WE CAN DO:**

- Talk to your child and really listen to them. When you go to talk to your child about drugs – choose a good time and don't judge.
- Keep informed.
- Set a good example.
- Don't panic.
- Be honest about drug use.
- Negotiate some rules about acceptable behaviour, be specific, don't just say '*be responsible*'.
- Be willing to say no to your children.
- Illicit drugs are rarely the biggest problem.
- Tell your children they're great, at every opportunity.

5. Alcohol Related Brain Injury, Brain Injury i Sheet No. 42, Brain Injury Association of Tasmania, Cornelian Bay Tasmania,

6. Drug and Alcohol Office Website, West Australia <<<http://www.dao.health.wa.gov.au/Home/tabid/174/ctl/Edit/mid/531/Services/ForParentsFamily/tabid/156/Default.aspx>>>, accessed on 14th October 2008.