ALCOHOL – IT’S A NO BRAINER

I bet you didn’t know that alcohol can have a harmful effect on your brain. Maybe for you, alcohol is a bit of harmless fun. For your brain, though, avoiding alcohol is a bit of a no brainer.

While the brain might not ever win any beauty contests, it is the most sophisticated computer you will ever own. Even the most expensive i-Phone doesn’t compare to the capability of your brain. The brain might have very little style, but it has plenty of substance.

Every single thing that you will ever do or accomplish in life will be planned and carried out by your brain. It allows you to think, feel, create, communicate, and survive – it makes you, you!

Without even having to think about it, the brain controls every breath, heartbeat and movement in your body.

So, it would make sense to take care of your brain, right?

Unbeknownst to most people, we could be doing something that is putting our brain at risk - drinking too much alcohol.

Alcohol is a neuro-toxin - this means that it has a toxic effect on our nervous system (a system in which your brain is the control centre)

Think of your computer with a really bad virus – that’s what your brain is like on alcohol.

BRAIN VIRUS – YOUR BRAIN ON ALCOHOL

Alcohol is a unique drug. While many other drugs only change certain chemicals in the brain, alcohol can disrupt its entire chemistry. Because of this, alcohol interferes with the brains central control centre. The more you drink, the more you lose control.

You know the slurred speech? Unsteady walk? Generally feeling “woozy”? Embarrassing, silly or even dangerous behaviour? All of these things happen because of the way alcohol changes the chemistry of brain.
### The Pre-Frontal Cortex: A.K.A The Boss

The frontal lobe acts a bit like the boss of a big company—it makes all the decisions, plans for the future and solves any problems that come your way. It makes sure that things happen in the right way and at the right time.

**Alcohol in the SHORT TERM**

Alcohol stops the boss of the brain from doing its job properly. When you drink alcohol, it becomes more difficult to make good decisions. You may do or say things that you would never normally do or say when sober—even risky or dangerous things without thinking about the consequences.

**Alcohol in the LONG TERM**

If this part of the brain becomes damaged as a result of alcohol, it can cause long-term difficulties with motivation, judgement, risk-taking behaviours and problem-solving.

### The Cerebral Cortex: A.K.A The Super-information Highway

This is the wiring of the brain that transfers information to different parts of the body and brain. It allows you to respond to what is happening around you at lightning fast speeds.

**Alcohol in the SHORT TERM**

When you drink alcohol, the super information highway is altered and slowed. All your perceptions, emotions, movements begin to react more slowly—just like a computer with a virus.

**Alcohol in the LONG TERM**

Damage to this part of the brain can permanently leave a person responding more slowly to things happening around them.

### The Cerebellum – A.K.A The Traffic Controller

The cerebellum is the traffic controller of the brain. It controls the movements of our bodies—our arms, legs and everything else! It allows us to move around the world without bumping into things and knocking things over. It checks to make sure we have enough time to cross a road etc.

**Medulla A.K.A The Power Panel**

This part of the brain controls vital life functions or your body like your heartbeat, breathing and temperature. During heavy drinking, these may slow or stop working altogether and be fatal for the person.

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### The Hippocampus A.K.A The i-Cloud

This part of your brain helps create, store and organise memories so that you can remember things at a later point. It 'files' new information and memories so they can be easily found when you want to remember them again.

**Alcohol in the SHORT TERM**

Alcohol can disrupt or completely block the ability to form memories of events that happen while a person is drunk. This is known as a blackout.

**Alcohol in the LONG TERM**

Damage to this part of the brain can lead to permanent difficulties with new learning and memory.

### Alcohol in the SHORT TERM

Alcohol in the SHORT TERM

Alcohol stops this part of the brain from working well. This is why people have poor balance, stagger and often fall when they drink alcohol.

### Alcohol in the LONG TERM

Damage to this part of the brain can lead to permanent difficulties with balance and coordination. The person may become quite clumsy and prone to falling.
**ALCOHOL & THE BRAIN: LIFE-LONG HARM**

Alcohol can leave a longer-lasting legacy than just drunken behaviour – it can cause long lasting changes to the brain to the as well.

This can happen at all stages of life from the moment you were conceived right through to our elder years. Alcohol can disrupt how your brain develops and works throughout your life.

<table>
<thead>
<tr>
<th>Pregnancy</th>
<th>Childhood</th>
<th>Teenage Years</th>
<th>Adult</th>
<th>Old Age</th>
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</thead>
<tbody>
<tr>
<td>Alcohol use during pregnancy can cause damage and lifelong changes to the developing baby’s brain</td>
<td>Exposure to problem alcohol-use in the home can disrupt the normal development of the child’s brain</td>
<td>The teenage brain is undergoing important changes from its early teenage years until the mid-twenties. The brain is not fully developed until we are aged 25-30</td>
<td>Alcohol misuse linked to increased risk of developing brain injuries including:</td>
<td>Increased sensitivity to the negative effects of alcohol</td>
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<td>Underage alcohol use may delay important brain development</td>
<td>• Traumatic-Brain Injury</td>
<td>Increased risk of accidental falls</td>
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<td></td>
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<td>The adolescent brain has a different and greater sensitivity to the effects of alcohol than the adult brain</td>
<td>• Strokes</td>
<td>Complicates treatment and management of dementia</td>
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<td>• Alcohol-Related Brain Injury</td>
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</tbody>
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- Fetal Alcohol-Spectrum Disorder (FASD)
- Partial Fetal Alcohol Syndrome, (pFAS)
- Alcohol Related Neurodevelopmental Disorder.