

Growing Evidence For The Lasting Impact Of Alcohol On The Brain

Excessive alcohol use accounts for 4% of the global burden of disease, and binge drinking particularly is becoming an increasing health issue. A new review article published in *Cortex* highlights the significant changes in brain function and structure that can be caused by alcohol misuse in young people.

Functional signs of brain damage from alcohol misuse in young people mainly include deficits in visual learning and memory as well as executive functions. These functions are controlled by the hippocampus and frontal structures of the brain, which are not fully mature until around 25 years of age. Structural signs of alcohol misuse in young people include shrinking of the brain and significant changes to white matter tracts.

Age of first use may be considered to trigger alcohol misuse. According to the researchers however, changing the legal drinking age is not the answer. In Australia the legal drinking age is 18, three years earlier than in the US. Despite the difference in legal drinking age, the age of first use (and associated problems) is the same between the two countries.

Instead, the authors stressed the need for early intervention, by identifying markers and thresholds of risky drinking behaviour at an early stage, while individuals are in vulnerable stages of brain development.