



# How alcohol affects vision

Alcohol slows the brain's ability to process information, including visual information. An intoxicated person may have difficulty dealing with multiple items of information or performing more than one task at a time, while long-term heavy alcohol consumption can increase the risk of eye and neurological damage.

It is true that a drunk person may exhibit "tunnel vision". It is not that their peripheral vision is impaired. Rather, if the person is concentrating to read or walk, then they may prioritise their central vision over their peripheral vision<sup>1</sup>.

It is more difficult to see detail in a moving object when intoxicated. This is because the brain needs to do two things at once: co-ordinate eye movements AND see detail<sup>2</sup>.

There is evidence that the eye's tear film decreases after drinking alcohol<sup>3</sup>. In addition to making the eyes feel dry, it can also affect the eye's optical quality and hence, clarity of vision.

Alcohol affects our eye alignment. There is a tendency to become more "cross-eyed" (show more esophoria) when looking in the far distance, and a reduced ability to converge our eyes (turn our eyes inwards) to see at a close distance<sup>4</sup>.

People who consume more than 2 standard drinks per day (more than 20g alcohol per day\*) have a higher risk of developing age-related cataracts<sup>5</sup>.

Long-term heavy use of alcohol can also affect colour vision. Drinkers who consume more than 750g alcohol per week (equivalent to about 10 standard drinks per day\*) are more likely to develop an acquired colour vision defect. This generally starts as damage to the blue-yellow colour vision system, and progresses to include the red-green colour vision system as eye and neurological damage increases<sup>6</sup>.



\* In Australia, 1 standard drink = 10g alcohol

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4. Ophthal Physiol Opt (1985): 5(1): 43-51 5. Optom Vis Sc. (2015) 92(4): 471-479 6. Neurotoxicology and Teratology (1988) 10: 255-60

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