



ALCOHOL AND PHYSICAL PERFORMANCE

Does alcohol affect physical performance? Can I have a drink after an event? Can I have a couple? What is "a couple"? What about training or having a drink mid-week? What about when I am injured?

These are all reasonable and relevant questions and again there is some good information in Sports Medicine literature available.

Alcohol (ethyl alcohol / ethanol) is available in various forms, generally beer, wine and spirits. Traditionally alcohol content per drink is measured in grams or "standard drinks". For example; 1 middy of beer = 1 small glass of wine = 1 nip of spirit = 10 grams. The World Health Organisation defines alcoholism as a daily use of greater than 60g/day. This dependency on alcohol is tragic in an individual, but many other alcohol-related disorders are mentioned in the medical literature including; dependency, acute intoxication, withdrawal syndrome and alcohol intolerance.

Once consumed, alcohol is rapidly absorbed in the gut then metabolized (broken down) by enzymes in the liver. The liver can be trained to metabolize alcohol with regular alcohol use. The by-products of this process still may cause permanent tissue damage (such as the liver, nervous system and the heart). Gut absorption is faster on an empty stomach. That is why unaccustomed alcohol consumption on an empty stomach "goes straight to your head" and may contribute to intolerance and the behavioural problems – disinhibition, aggression, rowdiness, etc.

The physiological and chemical effects of alcohol have been studied, mainly in recreational sportspeople. In a British study, moderately trained individuals were tested before and after a night of consuming 5-10 standard drinks (average of seven). The beep test was the parameter for aerobic effort, whilst anaerobic performance was tested with repeated 15m sprint and burpees (yes, burpees!). The pre-alcohol tests were 1 week prior. They found was no statistical difference with anaerobic performance, but aerobic performance deteriorated by up to 23% (average 15%). Other functions such as mental performance, balance and fine movements are all negatively affected by alcohol.

Additionally, alcohol suppresses appetite in many, generally causes inferior sleep quality, dehydration and an increased swelling at an injury. Sexual performance may be impaired, although athletes tend not to discuss this openly.

In summary:

- Avoid alcohol with any injury which effects your training or playing (in particular lower limb injuries and concussion)
- Check if any medications interact with alcohol (e.g. anti-inflammatories and some antibiotics)
- Plan your alcohol use – make sure you are rehydrated and carbohydrate repleted before consuming alcohol. Wherever possible, consider low alcohol alternatives.
- The 'better time' to drink is the day after a game (e.g. lunch) or earlier in the week.
- The recommended limit for men is 4 standard drinks a day.
- Binge drinking is extremely damaging. The liver may take up to 3 weeks to recover and physical performance is negatively affected in the short term.
- Don't drink and drive

Dr John P Best

B.Med., Dip. Sports Medicine (London), FACSP
Sports Physician

References available on request