ALCOHOL AND SPORT
The alcohol industry has a strong historical association with sporting events with both spectators and occasionally athletes consuming alcohol as part of celebrating a sporting event. When individuals practice moderation, consuming alcohol may not be harmful to health. The health effects of overconsumption of alcohol (on body weight, mental health and cardiovascular health) are well documented. In addition to these health effects, it is also important for all athletes to understand the performance consequences that can occur when alcohol is abused and consumed in quantities higher than recommended.

Short term impact

1) **Dehydration**: Alcohol consumption interferes with one of the primary mechanisms that regulates water stores in the human body by decreasing anti-diuretic hormone (ADH). ADH helps the body retain and absorb the fluids you drink. ADH is suppressed when alcohol is consumed and the frequency of urination increases causing dehydration, which can negatively affect the next day’s performance.

2) **Sleep**: When it comes to recovery from strenuous exercise, adequate sleep is very important. Anything that interferes with the quantity or quality of sleep will likely increase injury risk and negatively impact athletic performance. Although alcohol consumption may not always impact sleep quantity, it does impact sleep quality by impeding REM (Rapid Eye Movement or dream state) sleep. Without REM, cognitive function is severely reduced.

3) **Cognitive impairment**: Quick decisions made on the playing field can often be the difference between winning or losing in sport. Consumption of alcohol in excessive amounts impedes reaction time, ability to visually track objects, recognition, memory and the ability to execute fine motor tasks. These effects are also apparent with a hangover, which will negatively affect the ability to perform the next day.

4) **Muscle tissue and injury recovery**: In order for muscle tissue to repair, specific nutrients need to be delivered to site of injury. Equally, by-products of the healing process need to be taken away from the site of injury. Alcohol consumption increases blood flow and dilates blood vessels prolonging the healing process by impairing the removal of these by-products. In the long term, specific proteins in the body are inhibited and will both slow down the recovery process from injury and also decrease positive adaptations from training.
Longer term impact

1) **Body composition:** In short, you either gain or lose weight (whether from muscle or fat tissue) by being in a caloric surplus or caloric deficit. When alcohol is consumed in excess, not only is the body’s ability to build muscle impaired, but the likelihood of gaining unwanted body fat is also increased. Simply put, alcohol contains a lot of calories (7 kcal/g). A single shot of alcohol contains approximately 100 calories, a pint of beer is ≥ 200 calories and a 6oz glass of wine contains approximately 160 calories. Consuming multiple beverages on a regular basis, on top of your regular food consumption, can add up to a lot of calories while inhibiting your ability to maximize muscle tissue growth and decrease unwanted body fat.

2) **Metabolic impairment:** Excess alcohol consumption has a plethora of negative consequences on the metabolic system. It impairs the body’s ability to both utilize and store muscle glycogen, and can cause hypoglycemia or low blood sugars by stimulating insulin release. The body’s ability to regulate core temperature is also impaired when consuming excess alcohol. When combined, these all effect the ability to utilize one of the main fuel sources for athletic performance, glucose, which ultimately impairs performance.

3) **Hormone impairment:** Short-term increases in the stress hormone cortisol can occur naturally with resistance training and are an important part of training adaptation. However excess consumption of alcohol can cause longer-term elevations in cortisol, which can impair your athletic ability and impact recovery from stress (e.g. exercise).

**If you choose to drink alcohol**

1. **Eat before:** Always make sure you have taken care of your recovery nutrition, rehydration and eaten before consuming any alcohol.

2. **Pace yourself:** Put your glass down between sips, have a soft drink or water in between alcoholic drinks. Choose drinks with a lower percentage alcohol content. Rehydrate thoroughly before going to bed.

3. **Drink in moderation** – no more than 2-3 units per day for women, 3-4 units for men

   1 pint 5% beer = 2 units  
   25ml/1oz glass of spirits = 1 unit  
   125ml/4oz glass of wine = 1.5 unit

4. **Alternate option, be the designated driver**

**Refer to “Off Season Nutrition” to for more information on the calories in alcohol**

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