



# WASTED WORKOUTS

by Kristina LaRue, RD, CSSD, LDN

Athletes and non-athletes alike consume alcohol as a means to celebrate, relax, relieve stress or reduce inhibitions. When an athlete chooses to consume alcohol, as little as one drink can have a deleterious effect on their performance.

## HOW DOES ALCOHOL IMPACT THE BODY?

### SHORT-TERM EFFECTS

- **Hydration**—alcohol is a diuretic that can lead to dehydration.
  - Rehydration from one alcoholic drink requires consumption of twice as much water.
- **Motor skills**—slower reaction time, decreased hand-eye coordination and impaired balance.
- **Strength**—decreased grip strength, jump height and speed.

- **Aerobic performance**—faster fatigue, increased ventilatory stress and decreased lactate threshold.
- **Sleep**—disrupted REM sleep= hormonal suppression = impaired muscle synthesis and performance.



### LONG-TERM EFFECTS

- **Weight gain**—alcohol has low nutritional value with one drink containing an average of 100-150 empty calories.
  - The body will store alcohol as fat by converting alcohol sugars into fatty acids.
- **Nutritional deficiencies**—decreases vitamin and mineral absorption, utilization and excretion (e.g. thiamin (vitamin B-1), vitamin B-12, folic acid and zinc).

- **Disease**—long-term, heavy drinking increases the risk of cardiovascular disease, anemia, liver damage, depression and dementia.
- **Illness and injury**—depresses immune function and contributes to delayed healing.
  - Injury rate for drinkers = 54.8% vs. non-drinkers = 23.5%

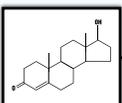
## OTHER PHYSIOLOGICAL EFFECTS:



**Cancels out muscle gains**—decreases testosterone and growth hormone, and enzymes important in supporting muscle growth.



**Depletes energy sources**—affects the ability to produce fuel for muscle contraction, resulting in loss of energy and poor endurance.



#### Hormones:

- Increases glucocorticoids (most notably cortisol) - stress hormones that influence metabolism and development.
- Decreases human growth hormone (HGH) and testosterone—critical to muscle development and repair.

A healthy body is critical to achieving optimal performance for all athletes—it's important for the athlete to consider these consequences and how it will affect future training sessions, games and competition.