

## **The Fastest Way to Success - not Alcohol**

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One of the world's top endurance coaches in history, Antti Leppavuori, from Finland, talked about ways of improving performance. The easiest way, above any, other than training, was to lose weight or gain lean body mass; versus maintaining body fat at levels which decrease efficiency of most physiological systems. He mentioned he had lost 10 kilograms and he did look fit. He stated that losing weight was the easiest way to gain increased results. On average a loss of one kilogram (2.2 lbs.) of weight equates to a gain of 1 ml/kg/min in relative VO<sub>2</sub>. This is a huge gain in all physiological capacities and potential. Coaches and trainers involved with female team sports need to take a healthy view of this issue. Weight loss of excessive body fat, can have a significant impact on fatigue levels in the late stages of a game or competition which greatly limits performance. This can greatly increase efficiency at a critical time in the game.

Female athletes, of course naturally maintain nearly twice the amount of body fat as compared to males. Many college age female athletes leave home and quickly gain weight, much of which is fat. Many times the cause is an increase in social use of alcohol. Remember in high school, athletes who drink have a usual five drinking episodes in 30 days; which relates to a one-day-a-week pattern usually on Friday or Saturday night. Upon arrival at college, this escalates to 10 to 14 drinking episodes in 30 days which greatly magnifies the problem of body fat deposition (weight gain).

### Here is how it happens plain and simple:

- We all know the famous "beer-belly" - an ounce/28.35 grams of alcohol contains nearly 200 calories, therefore limited alcohol consumption is essential to weight loss. Alcohol is a strange nutrient. *It has virtually zero fat but acts like fat because it prevents fat from being oxidized (burned as a fuel).* Since alcohol is oxidized in preference to fats, it appears to affect the diet in the same manner as a huge increase in dietary fat.

### **Fat Burning Decreased:**

- Alcohol greatly affects the amount of fat your body can and will burn for energy! When you run out of stored muscle fuels (glycogen) at practice or in a game, you normally switch to burning fat as a secondary fuel source; but not if you have been drinking. Your muscle fuels last 60 to 90 minutes when you are doing long steady state work like a distance run or aerobic workout. However they are combusted in just 30 to 40 minutes when you are involved with high intensity exercise or intermittent bouts or bursts of energy like in a game, interval session or power/speed session. Normally you would switch to burning body fat but alcohol shuts this process down. Just a mere 24g (less than one ounce) of alcohol consumption has shown whole-body fat oxidation (the rate at which your body burns fat) decreased by a whopping 73%!
- Alcohol users also compound this problem by the fact that heavy alcohol use elicits the release of the stress hormone Cortisol.

- Cortisol has been called the “un-doer of all training”. It causes catabolism in human muscle. Catabolism defined, is the set of metabolic pathways which break down molecules into smaller units and release energy. Breakdown of tissue or capacity. To tear down.
- Cortisol is one of the greatest contributing factors in muscle catabolism (breakdown) and lost training effect.
- A recent European study of 8 athletes, observed that after drinking alcohol, the effects of a significant decrease in testosterone (our main training hormone) and an increase in cortisol (the muscle destroying hormone) lasted up to 24 hours after drinking.

Think of how many lost training days occur after drinking episodes, whether you show up at practice or not.

It is quite clear that alcohol and training and high level performance don't mix. Start by thinking how much you have invested in your athletic career... All the time, money, energy, focus and sacrifices you have made to become a serious athlete. When you compete you measure the outcome of all that effort.

Above all other advice remember this: *Alcohol is a metabolic poison that crosses all barriers and pathways in the human body, negatively affecting all physiological systems, simultaneously. Live the Life of an Athlete.*