Supplements and doping issues

Players who are liable for drug testing under national or international programs should be especially cautious about supplement use.

Some supplements are prepared in unhygienic conditions and contain toxins that may cause gastrointestinal problems. Others do not contain ingredients – especially the expensive ones – that are listed on the label. Contamination of dietary supplements with substances that may cause a player to fail a doping test is widespread – some surveys have suggested that as many as one in four supplements may result in a positive test. These prohibited compounds have not been declared on the label, so there is no way for the player to know that they are present.

At present, there is no guarantee of the purity of any commercial supplement. The only way to be sure is to avoid supplements altogether, but many players are unwilling to accept this advice. The sensible player will want to see very good reasons for using a supplement and a very low risk of an adverse test before deciding to use it.

There is no evidence that prohormones such as androstenedione and norandrostenedione are effective in enhancing muscle mass or strength. These prohormones are promoted for use by players and are readily available in shops and via the internet, but they will result in negative health consequences as well as positive drug tests.

Many herbal supplements are claimed to increase testosterone levels and hence have an anabolic action: such supplements include Tribulus Terrestris, Chrysin, Indole-3-carbinol, Saw Palmetto, Gamma-oryzanol, Smilax and Mums. These claims are based on experiments carried out in test tubes, and none has been shown to work in humans. All players are cautioned against the use of these supplements.

Players must be aware of the strict liability principle that makes them responsible for everything they eat and drink. Ignorance is not an acceptable excuse for a positive doping result.

Check all supplements with a medical officer. If there is any doubt at all, don't take it.

Alcohol

The use of alcohol is often intimately associated with sport, and the association is particularly strong in football. As well as providing a source of energy, alcohol (ethanol) has metabolic, cardiovascular, thermoregulatory and neuromuscular actions that may affect exercise performance.

Sensible drinking guidelines for the community

Alcohol intake may be measured in grams or ml of ethanol, or in units of alcohol: each unit of alcohol in the UK contains approximately 8 grams (10 ml) of ethanol. The UK Department of Health recommends that adult men should not consume more than 3-4 units of alcohol per day and women should not consume more than 2-3 units daily. In the US, however, a standard drink delivers about 12-14 grams of alcohol, and the US Department of Agriculture recommends that men should not drink more than 1-2 drinks per day and that women should not exceed 1 drink per day.

Although these recommendations provide a guide to the everyday use of alcohol, the problems associated with alcohol in football generally arise from “binge” drinking on specific occasions – especially in the post-match period. This type of drinking has implications for the players’ recovery, their well-being and their reputation.

Alcohol metabolism

Alcohol is metabolised primarily in the liver, and the rate of metabolism varies greatly between individuals. Alcohol can be oxidised at a rate of about 100 mg/kg body mass per hour – equivalent to - one serve or unit of alcohol per hour for most people. Despite old wives’ tales, the clearance of alcohol from the system cannot be enhanced by having showers, drinking coffee or other practices believed to help an intoxicated person “sober up”.

The actions of alcohol on the central nervous system result in decrements in skill and behavioural changes that may have adverse effects on performance. There is also evidence of dose-dependent decrements in aerobic capacity. Although the mechanisms are not well understood, the aftermath of alcohol use (hangover) may also adversely affect performance for many hours after intoxication. The most important problem associated with the excessive consumption of alcohol after exercise is that it may distract the player from making good choices. Alcohol intoxication may make the player forget about following sound recovery practices such as appropriate treatment for injuries, adequate sleep or optimal eating and drinking. Alcohol may displace carbohydrate from the diet at a time when restoration of glycogen stores should be a priority. The need for other important nutrients may be neglected while the player is consuming large amounts of alcohol, or sleeping off the hangover next day. An intoxicated athlete often succumbs to high-risk activities leading to accidents, violence or other anti-social behaviour. Negative outcomes range from the tarnishing of a reputation to serious (often fatal) injury.

The player should avoid a heavy intake of alcohol on the night before a match. It appears unlikely that the intake of 1-2 standard drinks will have negative effects in most people.

Before consuming any alcohol after a match, the player should consume a meal or snack to replace carbohydrate, fluid and perhaps protein. This snack or meal will start the recovery process. Food intake will also help to reduce the rate of alcohol absorption and thus reduce the rate of intoxication.

Once post-exercise recovery priorities have been addressed, the player who chooses to drink is encouraged to do so “in moderation”. Drink-driving education messages in various countries may provide a guide to sensible and well-paced drinking.

The player who drinks heavily after a match, or at other times, should avoid driving and other hazardous activities.

Examples of one unit (~10 g) alcohol

| 250 ml standard beer (4% alcohol) | 100 ml wine or champagne |
| 500 ml standard low alcohol beer (2% alcohol) | 60 ml fortified wines, port |
| 250 ml wine coolers or alcoholic soft drinks | 25 ml (one nip) spirits |