

Alberta Alcohol and Drug Abuse Commission

POSITION ON PERFORMANCE AND APPEARANCE-ENHANCING DRUGS

November 2007

POSITION

The Alberta Alcohol and Drug Abuse Commission (AADAC) oppose the non-medical use of performance and appearance-enhancing drugs. Inappropriate use of these drugs can have adverse health and social consequences, including a serious potential for dependence. AADAC believes that organizational collaboration is essential to develop a realistic and effective approach for dealing with the problems associated with the misuse of these substances.

CONTEXT

The use of drugs that increase physical strength and ability is usually related to enhancing athletic performance. These same drugs may also be used to improve individual appearance by decreasing body fat and increasing muscle mass. Other drugs are used to accelerate weight loss and this type of drug use may be associated with eating disorders.

Drugs that are used to enhance performance or appearance include stimulants (to reduce fatigue, for weight loss), opioids (for pain relief), anabolic steroids (e.g., tetrahydrogestrinone), diuretics, beta receptor antagonists, anti-inflammatory drugs and peptides (e.g., growth hormone and insulin).

A variety of nutritional aids and health supplements are also marketed as having performance or appearance-enhancing effects. These include creatine monohydrate, dietary supplements with steroid precursors such as androstenedione, herbal products like Ma Huang (which contains ephedrine) and 'energy' drinks with high concentrations of caffeine or a combination of ephedrine and caffeine.

Prescription drugs used to enhance performance and appearance have a legitimate medical purpose. However, non-medical use of these substances and their effects on physical and psychological health is a concern because the amounts used are often greater than the recommended therapeutic dosages, and because evidence of long-term health consequences for both males and females continues to increase. Acne, infertility and liver disease can be side effects associated with misusing drugs such as anabolic steroids, insulin and growth hormones. Added risk may occur when physicians prescribe other drugs for patients while unaware of the non-medical use of performance or appearance-enhancing drugs. Combining prescription drugs or herbal preparations and supplements with alcohol or illicit drugs can increase the potential for harm.

The 2004 Canadian Addiction Survey showed that less than 1% of Albertans (aged 15 or older) reported lifetime use of steroids. Among Alberta, students (grades 7-12) surveyed in 2005, 1.3% reported using steroids at some time during their lives

The potential health risks associated with steroid use vary depending upon a number of factors:

- method of use (oral or injection)
- the type of drug used and its purity
- dosage
- length of time used
- other drugs used concurrently
- individual metabolism
- medical history

Long-term or heavy users of steroids can become dependent on these drugs. They may come to rely on them for a sense of goal achievement, security and self-esteem in addition to the physiological effects. Cessation may result in physical and psychological withdrawal symptoms including depression, which may motivate people to continue use.

People who inject steroids, insulin, growth hormones or other drugs are at risk for contracting infectious diseases such as HIV and hepatitis.

Many natural health products such as herbal preparations, nutritional or other supplements have little, if any, scientific evidence to support claims of effectiveness and the risks and benefits associated with their use are not well known. In 2004, Health Canada introduced the *Natural Health Products Regulations* to control the manufacture, packaging, labelling, importing and distribution of all natural health products, such as vitamins/minerals, herbal remedies and homeopathic medicines. Under these regulations, product labels must list recommended use, administration, dose/duration of use, ingredients, and risk information, including any cautions, warnings, contra-indications or known adverse reactions associated with use.

In Canada, distribution of most performance and appearance-enhancing drugs for non-medical reasons is illegal and, depending on the drug, is a punishable offence under either the *Food and Drugs Act* or the *Controlled Drugs and Substances Act*.

In response to the problem of drug use in sports, increasing attention has been focused on educating athletes and coaches, and on drug testing policies and programs for amateur and professional competitors. The Canadian Centre for Ethics in Sport is responsible for the Canadian Anti-Doping Program and maintains an up-to-date list of substances that are permitted or prohibited by athletes in or out of competition.

KEY CONSIDERATIONS

Relative to AADAC's mandate, the Commission can assist communities in constructively addressing this issue. Areas of possible collaboration include:

- working with medical professionals, athletic groups and schools to develop programs and educational materials to (1) prevent the non-medical use of drugs to enhance performance and appearance; (2) promote drug free sport; (3) support people in making informed decisions concerning lifestyle; and (4) inform athletes and other users about the harmful effects of drug use and the risk of disease that accompanies injection drug use.

- supporting research to determine the extent to which performance and appearance enhancing drugs are used and increase understanding of the short and long-term effects of these substances on physical and mental health.
- offering treatment to assist people affected by this form of substance use, and providing referral services for more specialized treatment programs (e.g., treatment for eating disorders).

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