

Reprint from

RECENT ADVANCES  
IN DOPING ANALYSIS  
(3)

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Prevention of Misuse of Anabolic Steroids in Sweden  
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## **Prevention of misuse of anabolic steroids in Sweden**

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Anabolic androgenic steroids (AAS) are synthetic derivatives of testosterone. Their therapeutic use is, at the present time very limited. AAS became however, widely used in sports in the 1960s and were banned in sports in 1974. The Doping Commission of the Swedish Sports Confederation has established a comprehensive nation-wide antidoping control program. Currently about 2300 urine samples, including competition and unannounced out-of-competition tests, are taken annually by some 200 licensed doping control officers working as volunteers. These urine samples are all analysed at the IOC (International Olympic Committee) accredited Doping Control Laboratory in our Department. This program forms the basis for the prevention of drug abuse in Swedish sports.

Since the early 1990s, an increasing number of consultations to the Doping Control Laboratory and the Doping Commission, highlighted the abuse of doping agents outside the world of sports. This concerned mainly the use of AAS, in men in order to improve their body image by increasing their muscle mass. To increase the knowledge about AAS we arranged at the hospital 1992 a two day seminar for 600 school nurses, teachers and social welfare officers. Together, with the newly started National Institute of Public Health, 9 education days about AAS were arranged in 9 different communities for about 4500 persons. During 1994 the Doping Laboratory has provided about 600 AAS analyses (men, age range 11-42 years) to the health care sector as a diagnostic test (about 13% with a confirmed AAS intake).

This abuse has also evoked interest among media and the authorities (police, customs etc). In 1993 the National Institute of Public Health acknowledged this as an important public health problem by providing financial support to a public telephone service: the Antidoping "Hot Line". This is an information service open Monday to Friday 10.00 - 20.00 and staffed by two qualified nurses. The aims are to prevent abuse of doping agents, mainly AAS and other

hormones, by providing evidenced based answers to questions from the public and the health professions and to spread information about effects and risks with AAS. With the "Hot Line" placed in a university clinic specialized in drug evaluation and drug information and with a doping laboratory, another aim is to increase our understanding of the abuse of AAS. The Antidoping "Hot Line" has received about 4000 calls since October 1993. Many calls are from young male users (AAS and/or growth hormone), but also female users (clenbuterol, rarely AAS) call the "Hot Line" (Table). Most of our requests are about adverse effects or toxicity of these drugs. Side-effects such as loss of hair, acne, striae, gynecomastia, infertility, increased libido/impotence as well as aggressiveness, anxiety, depression and sleep-disturbances have been mentioned. Other frequent "callers" are friends, girlfriends, parents, teachers, various authorities and health care professionals.

Although the "Hot Line" provides an anonymous service, quite a few people have asked for help to stop using AAS, personal experiences from about 30 patients temporarily seen at outpatient clinics at Huddinge Hospital have been gathered. Both physical and psychiatric problems related to AAS intake have been reported from this self selected group of patients. Some of them also admitted to the use of amphetamine and cocaine. About one in four had admitted serious violence while on AAS.

As the only national service available, the "Hot Line" has also tried to create a "network" of contacts with people all over Sweden with some experience in AAS abuse (support staff of former abusers, health care personnel etc) and to support and/or participate in information campaigns about AAS.

Since 1992 the federal law "The Act Prohibiting Certain Doping Agents" criminalizes selling, smuggling and possession of non-medical handling of AAS, growth hormones etc. A parliamentary task force is currently revising this law.

## Table

Top ten substances at the antidoping "hot line" consultations.

1	"Russian five"	metandienone
2	Clenbuterol	clenbuterol
3	Growth hormone	somatropine
4	Testosterone	testosterone
5	"Deca"	nandrolone
6	Sustanon	testosterone-esters
7	Winstrol	stanozolol
8	Omnadren	testosterone-esters
9	Silabolin	nandrolone
10	Primobolan	methenolone