SIGNS, SYMPTOMS AND VULNERABILITY FACTORS IN DOPING (Elite)

Physical signs and symptoms of anabolic agent use
Athletes using anabolic steroids may show one or many the following:
- Quick weight gain
- Acne
- Hair loss
- Becoming more masculine (for females) such as body hair growth and deepening of voice
- Development of abnormally sized breasts (males)
- Evidence of injections (needle marks)

Other signs and symptoms of substance use
Athletes using or abusing certain drugs may show one or many of the following:
- Mood swings
- Aggressive behavior
- Sudden increase in training regime
- Signs of depression
- Difficulty concentrating
- Difficulty sleeping
- Quick weight gain or loss

Vulnerability factors
Some athletes display certain personality traits, characteristics or behaviors that put them at risk for engaging in doping activities. These predispositions include:

Personal characteristics, personality traits or attitudes
- Low self-esteem
- Results-driven
- Body image dissatisfaction / concern about weight maintenance
- Unruly, disrespectful of authority
- High ego orientation
- Low task orientation
- Impatience with obtaining results
- Propensity for cheating / bending the rules
- Willingness to use prohibited methods or substances if they were legal
- Willingness to use prohibited methods or substances if they could ensure success in sports
- Belief that everyone else is doping
- Disbelief in harmful effects of doping
- History of substance abuse in family
- Admiration for achievements of known doped athletes
- Thrill-seeking

At-risk behaviors
- Use of other substances, alcohol or tobacco
- Non-discretionary use of dietary supplements
- Relying on untrustworthy or misinformed sources
- Frequenting fitness centers where steroids can be obtained
- Setting unrealistic goals
- Self-medication
- Engaging in other risk-taking behavior
- Frequent reading of muscle/fitness magazines
Other athletes, who are otherwise well intentioned and not necessarily prone to doping, may find themselves in situations that make them more vulnerable to succumbing to the temptation. They include:

**Career-related circumstances:**
- external pressures to perform / high stakes placed on performance (by sponsors, agents, family members, sports organisations, etc.)
- overtraining or insufficient recovery time
- recovering from injury
- absence or weakness of deterrents (such as doping controls, severe sanctions, etc.)
- type of sport (weight categories; endurance; pure speed or strength)
- lack of resources (access to competent training professionals and sports training information and technology)

**Temporary situations:**
- degradation of personal relationships (with parents, peers, etc.)
- emotional instability caused by life transitions (puberty, graduation to higher education levels, dropping out of school, geographical moves, severed relationships, death of significant others, etc.)
- upcoming career-determining events (team selection, major competition, scouting or recruitment activities, etc.)
- performance set back or plateau

Whether at-risk from personal characteristics or from situational factors, athletes showing some vulnerability factors warrant special attention. Reinforcing anti-doping messages and offering them psychological support and a personalized scientifically sound training regime will likely prevent them from resorting to prohibited practices.

**References**


