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New trends in anti-doping

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PURPOSE

To briefly describe recent development in the fight against doping

Some key years

- 1960 Olympic Games in Rome
- 1961 IOC Medical Commission
- 1964-72 Testing for stimulants
- 1974 Testing for AAS
- 1983 IOC Laboratories
- 1988 Seoul
- 1999 IOC Code; WADA
- 2004 WADA Code
- 2005 UNESCO Convention

DOPING (WADA Code)

Doping is defined as the occurrence of one or more of the anti-doping rule violations set forth in Article 2.1 through Article 2.8 of the Code

Anti-Doping Rule Violations

1. The presence of a prohibited substance
2. Use or attempted use of a prohibited substance or method
3. Refusal to give a sample
4. Inadequate whereabouts information
5. Tampering
6. Possession
7. Trafficking
8. Administration, assisting, encouraging

THE PROHIBITED LIST

”WADA shall, as often as necessary and no less often than annually, publish the Prohibited List as an International Standard”
(Article 4.1 of the Code)

LIST CRITERIA

- ENHANCES SPORTS PERFORMANCE
- HEALTH RISK
- VIOLATES THE SPIRIT OF SPORT

(Two of the three)

THE LIST

- I. PROHIBITED SUBSTANCES
- II. PROHIBITED METHODS
- III. SUBSTANCES PROHIBITED IN PARTICULAR SPORTS
- IV. SPECIFIED SUBSTANCES

PROHIBITED CLASSES OF SUBSTANCES

- S 1. ANABOLOIC AGENTS (Exogenous AAS, Endogenous AAS, Other Anabolic Agents)
- S 2. HORMONES AND RELATED SUBSTANCES (Epo, hGH, IFG-1, LH, hCG, Insulin, Corticotrophins)
- S 3. BETA-2-AGONISTS
- S 4. AGENTS WITH ANTI-ESTROGENIC ACTIVITY (aromatase inhibitors, SERMs)
- S 5. DIURETICS AND OTHER MASKING AGENTS
- S 6. STIMULANTS (e.g. amphetamines, cocaine, ephedrine)
- S 7. NARCOTICS
- S 8. CANNABINOIDS
- S 9. GLUCOCORTICOSTEROIDS

PROHIBITED METHODS

M 1. ENHANCEMENT OF OXYGEN TRANSFER, e.g. blood and blood product transfusion, administration of modified hemoglobin

M 2. CHEMICAL AND PHYSICAL MANIPULATION, e.g. catheterisation, urine substitution and/or tampering, i.v. infusions

PROHIBITED METHODS ctd.

- M.3. GENE DOPING

i.e. the non-therapeutic use of cells, genes, genetic elements, or of the modulation of gene expression, having the capacity to enhance athletic performance.

Distribution of doping substances, 2004

■ Anabolic agents	36.0 %
■ Glucocorticosteroids	16.6 %
■ Cannabinoids	15.7 %
■ Stimulants	11.6 %
■ Beta -2- agonists	11.5 %
■ Masking agents	4.8 %
■ Peptide hormones	2.4 %
■ Beta-blockers	0.8 %
■ Narcotics	0.5 %
■ Anti-oestrogens	0.2 %
■ Oxygen transfer enhanc.	0.1 %

ANTI-DOPING STRATEGY

- Information
- Education
- Doping Controls
- Research

Strategy of Doping Controls

- In competition
- Unannounced out-of-competition
- Random
- Targeting (Intelligence)

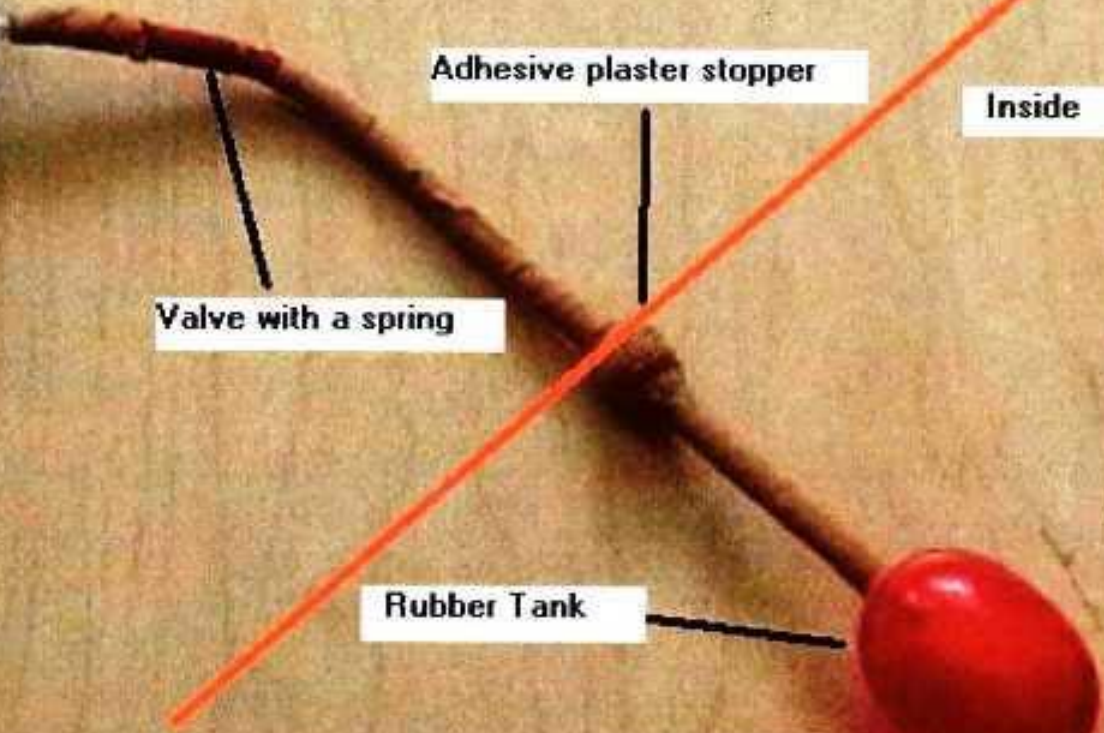
Recent negative events

- The "Salt Lake City experience" 2002
- The "Sweeney experience" 2002
- The "Balco affair" 2003
- The "Athens experience" 2004
- Further "designer drugs" 2005

The maked machine



The injection with false urine



Outside

Inside

Adhesive plaster stopper

Valve with a spring

Rubber Tank

Recent positive events

- The "Salt Lake City experience"
- The "Athens experience"
- WADA Code
- UNESCO Convention
- Research Fund
- Proactive initiatives (Banbury, Karolinska)