



DOPING IN SPORTS

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BWF Medical Commission

FAM Medical Committee

ADAMAS – TUE Committee

When did doping start...?



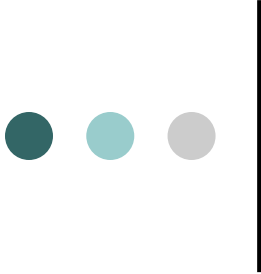
Doping is ...

- The administration to, or the use by a competing athlete, of any substance taken into the body or any physiological substance taken in abnormal quantity or by an abnormal route of entry into the body, with the sole intention of increasing in an artificial and unfair manner his performance in competition



Why should doping be banned?

- Doping contravenes the ethics of both sports and medical sciences
- Unfair and unsafe



What are the prohibited substances?

- More detail, check on WADA website
- 'the prohibited list'
- Updated (changes) every year



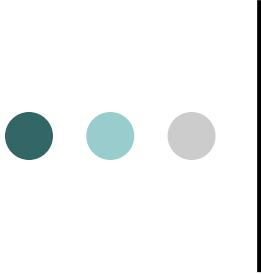
Categories

- At all time (in- and out-of-competition)
- In-competition only
- Prohibited in certain sports only

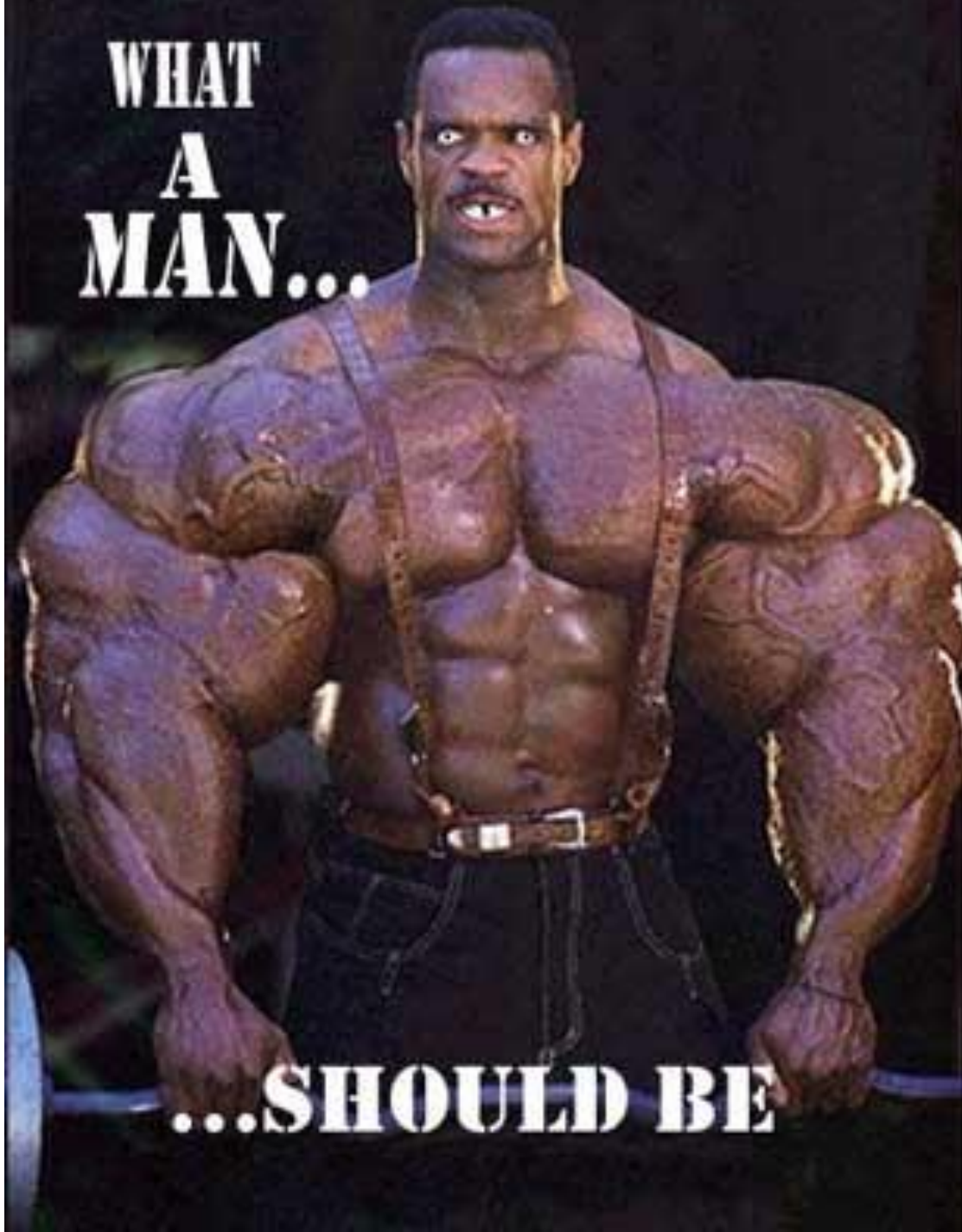


Prohibited at all time

- S0. non approved substances
- Any pharmacological substance that is not addereesed by any of the subsequent sections of the list with no current approval by any governmental regulatory health authority for human therapeutic use (eg drugs under pre-clinical use)

- 
- S1 – anabolic agents eg anabolic steroid: testosterone and its analogues
 - S2 – peptide hormones, growth factors, related substances and mimetics – eg EPO (increase endurance), chorionic gonadotrophin and LH in males, hGH (anabolic)

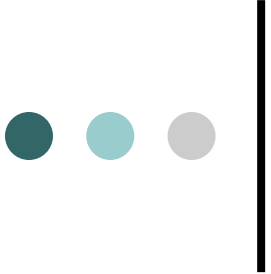
WHAT
A
MAN...



...SHOULD BE







S3 – beta 2 agonists

- beta 2 agonist other than inhalation are prohibited (exception: terbutaline inhalation – requires TUE)
- Bronchodilators; but in high doses stimulate muscle growth
- The allowed beta 2 agonist:
 - ☐ Inhaled **salbutamol** (maximum 1600 micrograms over 24 hours);
 - ☐ Inhaled **formoterol** (maximum delivered dose 54 micrograms over 24 hours); and
 - ☐ Inhaled **salmeterol** in accordance with the manufacturers' recommended therapeutic regimen.



S4. Hormone and metabolic modulators

- modify the effects of hormones or accelerate or slow down specific enzymatic reactions eg. aromatase inhibitors, selective estrogen receptor modulators, anti-estrogenic substances - eg tamoxifen and clomiphene
- Insulin – improves endurance by lipolysis and amino acids mobilization side effects can be fatal



S5. Diuretic and masking agents

- Conceal the presence of prohibited substance
- diuretics– frusemide, thiazides, spirinolactone
- The plasma expanders eg mannitol, albumin, desmopressin , starch



The prohibited method

- M1. manipulation of blood –
 - blood taken, stored and transfused (autologous blood transfusion)
 - improves the oxygen supply
- M2. chemical and physical tampering
 - Urine substitution and/or adulteration, e.g. proteases ('digested' the EPO)
 - Fluid infusion > 100 ml per 12 H (unless legitimate, i.e. in hospital setting)
- M3. gene doping – genetic material introduced into the body eg The transfer of polymers of nucleic acids or nucleic acid analogues;
 - The use of normal or genetically modified cells.
 - Danger – cannot be reversed fully..



Prohibited in-competition only

- S6. stimulants

- Amphetamine, metamphetamine, cocaine
- Fenfluramine
- Ephedrines, pseudoephedrines (only if urine concentration exceeds certain level)
- sibutramine
- Stimulate the CNS or the sympathetic NS affecting CVS functions, decrease fatigue



S7. narcotics

- - potent analgesics, suppress severe pain
- Pethidine, morphine, fentanyl



S8. cannabinoids

- Cannabis, hashish, marijuana



S9. glucocorticoids

- All **glucocorticoids** are prohibited when administered by oral, intravenous, intramuscular or rectal routes.



Prohibited in particular sports

- P1. beta blockers eg propranolol, atenolol
 - Archery (WA)* (in and out-of competition)
 - Automobile (FIA)
 - Billiards (all disciplines) (WCBS)
 - Darts (WDF)
 - Golf (IGF)
 - Shooting (ISSF, IPC)* (in and out-of competition)
 - Skiing/Snowboarding (FIS) in ski jumping, freestyle aericals/halfpipe and snowboard halfpipe/big air
 - Underwater sports (CMAS)



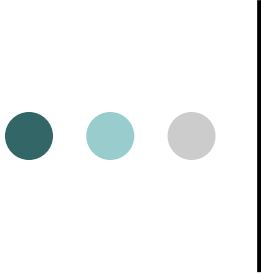
What happens if the test is positive?

- The adverse analytical findings
- Undergoes thorough review...
- ?any TUE (Therapeutic Use Exemption)
- ?check all documents
- ?provisional sanctioning
- ?B sample testing
- ?written explanation from the athlete



Decision

- Committee decision
 - Who is the committee?
 - recommendation
- How long?
- 4 years
- Appeal
- Court of arbitration
- (but.., who does the bill?)

- 
- “I was forced by the coach..”
 - “I didn’t take anything except the medications given by the doctor...”

It wasn't me...

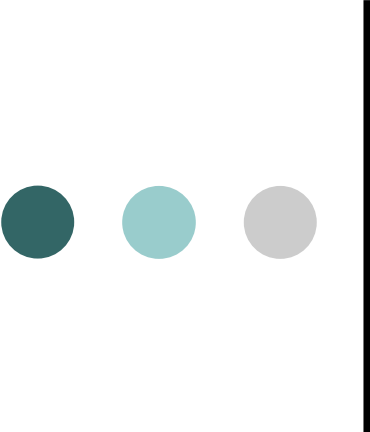


Jani Da Real
2006



Other anti-doping rule violations

- Possession of prohibited substance
- Trafficking
- Failure to file player's whereabouts
- Tampering
- Administration or Attempting it



Refusing to undergo doping test...

It is a doping rule violation...



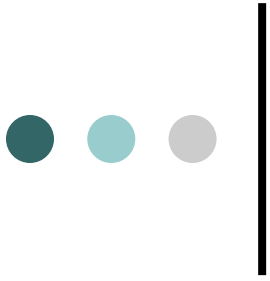
What are the contributing factors?

- Fame
- Monetary Incentives
- 'Not wanting to be left out'
- Pressure from people around..
- Poorly educated
- Politically motivated?



The possible impacts of doping in sports

- Unfair game
- No sportsmanship
- The clean athlete is not protected
- Bad name to the sports... eg death in sports
- Distrust between the competing teams
- No fun in the sports



In short,

**DOPING WILL DESTROY THE
SPORTS**



What more can be done?

- To who?
- AUSF?
- The world? (Olympic, FIFA, FISU)



AUSF

- We should do the regular doping control
- In the spirit of fair play...
- And to protect our clean athletes
- Challenges:
 - Financial – how much to spend?
 - expertise



What more can we do?

- Education
- Awareness campaign
- Specific challenges in Asia...







The world sports organizations?

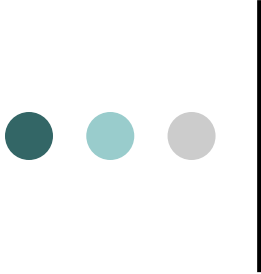
- Olympics, fifa, ... and fisu
- Increase testing... ?financial issue
- Tougher issues...
- Age cheating
- Gender cheating?

Stella walsch

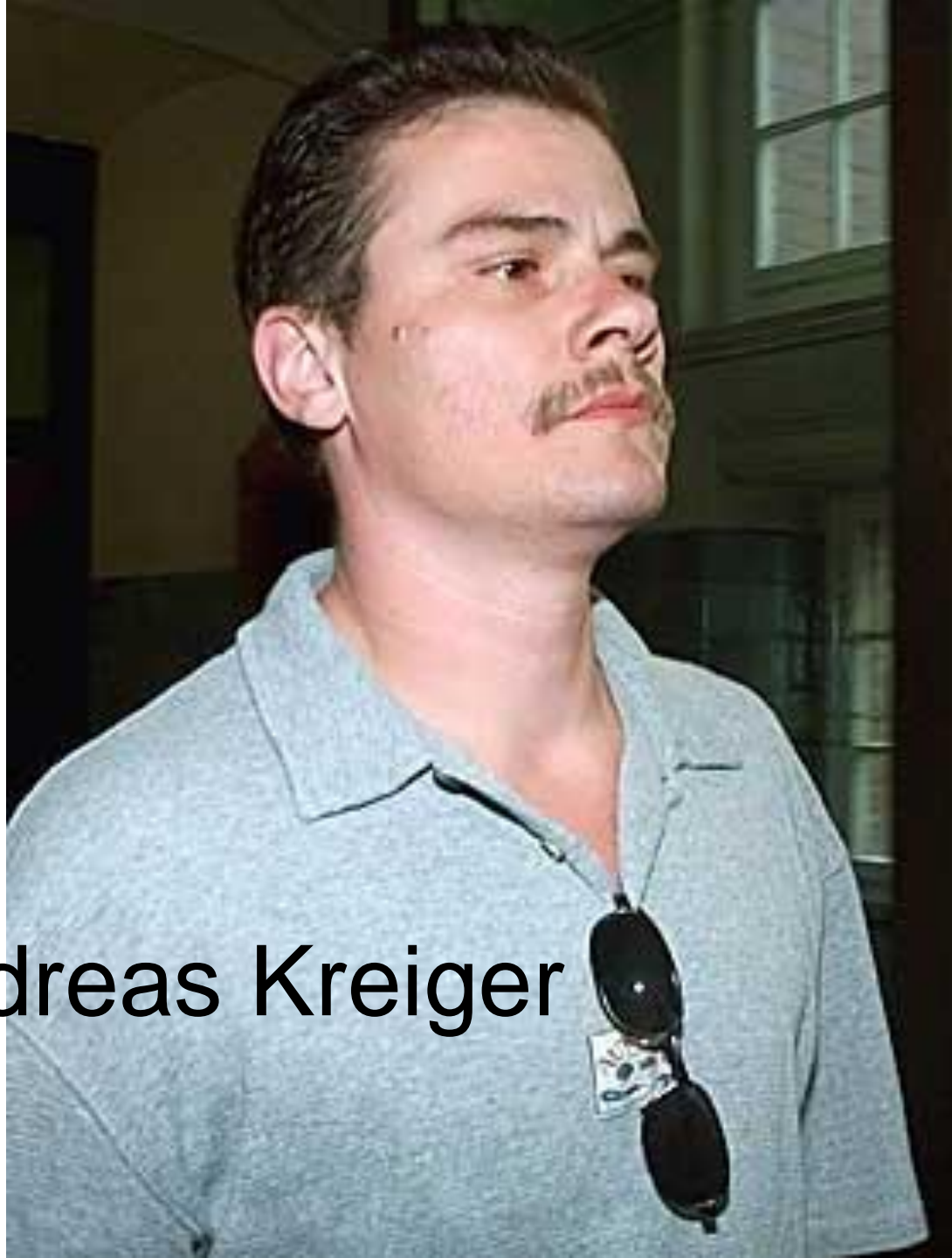


Heidi Krieger





Andreas Kreiger





football...

- 2006 world cup – doping-free
- > 20,000 doping controls done annually worldwide
- In 2004, 0.42% tested positive
- In 2005, 0.37%
- Mostly marijuana and cocaine
- Recreational drugs!



Conclusion

- Doping is unfair play and unsafe
- Doping control to protect the clean athletes
- Keeps up the standard of the games
- AUSF can do more... testing, education and awareness
- Outcome – is never pretty.... What is 4 years to an athlete?



Thank you

One step forward is better
than no step at all...

- *abdul halim mokhtar*