# DR ASHOK AHUJA INDIA SAI WEBINAR 12 MAY 2020

## ATHLETES AGAINST DOPING





## DOPING —A DREADED EVIL IN SPORTS

- DOPING IS DEFINED AS OCCURRENCE OF OF ONE OR MORE OF THE FOLLOWING ANTI DOPING RULE VIOLATION (ADRY)
- 2.PRESENCE OF PROHIBITED SUBSTANCE IN AN ATHLETE'S SAMPLE
- U 3.USE OR ATTEMPTED USE OF A PROHIBITED SUBSTANCE OR METHOD
- 4.REFUSING TO SUBMIT TO SAMPLE COLLECTION AFTER BEING NOTIFIED
- 5.FAILURE TO FILE ATHLETES WHEREABOUTS INFORMATION AND MISSED TESTS
- 6.TAMPERING WITH ANY PART OF DOPING CONTROL PROCESS
- U 7.POSSESSION OF PROHIBITED SUBSTANCE OR METHOD

#### ADRV ——CONTD

- **8.TRAFFICKING A PROHIBITED SUBSTANCE OR METHOD**
- 9. ADMINISTERING OR ATTEMPTING TO ADMINISTER A PROHIBITED SUBSTANCE OR METHOD TO AN ATHLETE
- U 10.COMPLICITY IN ADRV
- 11.PROHIBITED ASSOCIATION WITH SANCTIONED ATHLETE SUPPORT PERSONNEL

#### **WORLD FIGURES ADRV**

The ADRV toppers in these years (Olympic sports):

2014: Athletics 248, Cycling 168, weightlifting 143, football 69, wrestling 56, boxing 49, rugby 40, aquatics 32, basketball 27.

2015: Athletics 240, weightlifting 239, cycling 200, football 108, rugby 80, boxing 66, wrestling 57, basketball 39, rowing 27, aquatics 26.

2016: Athletics 205, cycling 165, weightlifting 116, football 79, wrestling 64, rugby 56, aquatics 35, boxing 35, canoeing and kayaking 29, basketball 27.

## DOPING CONTROL OR TESTING PROCESS

- ATHLETE SELECTION-ALL ATHLETES PARTICIPATING CAN HAVE URINE AND/OR BLOOD TESTED ANY TIME, ANY WHERE BY IF/ NADO OR ANY EVENT ORGANISING COMMITTEE BY TRAINED DOPING CONTROL OFFICIALS.
- U TESTING CAN BE DURING COMPETITION OR OUT OF COMPETITION.
- U IN COMPETITION IT CAN BE RANDOM, TARGET, RECORD, MEDAL PLACINGS
- OUT OF COMPETITION MAY BE TESTED ANY TIME ANY WHERE AND WITHOUT ANY ADVANCE NOTICE

# DOPING CONTROL PROCESS -11 STAGES

- 1.Athlete Selection You can be selected for doping control at any time and any place.
- 2.Notification A Doping Control Officer (DCO) or chaperone will notify you of your selection and outline your rights and responsibilities.
- 3 Reporting to the Doping Control Station You should report for your test immediately. The DCO may allow you to delay reporting however only in certain circumstances

#### DOPING CONTROL PROCESS

- 4. Sample Collection Equipment You are given a choice of individually sealed collection equipment.
- 5. Your Sample:-You will be asked to provide a sample witnessed by a DCO or chaperone. You may additionally be asked to provide a blood sample.
- 6 Volume of Urine A minimum 90mL is required for all samples.
- 7. Splitting the Sample Your sample will be split into an A and B bottle
- 8. Sealing the Samples You will seal the A and B bottles in accordance with the DCO's instructions

### **DOPING SAMPLES**



## 11 STAGES OF DOPING CONTROL PROCESS

- 9. Measuring Specific Gravity The DCO will measure the specific gravity of the sample to ensure it is not too diluted to analyse.
- 10. Completing your Doping Control Form You have the right to provide comments regarding the conduct of your doping control session. Be sure to confirm that all of the information is correct, including the sample code number. You will receive a copy of the doping control form.
- 11 The Laboratory Process All samples are sent to WADA accredited laboratories.

#### WHEREABOUT RULES —ADAMS

WADA's Anti-Doping Administration and Management System (ADAMS), is an online tool that athletes can access anytime and anywhere to update their whereabouts information, including by SMS.

ADAMS is available in English, French, Spanish, Arabic, Dutch, Finnish, German, Italian, Japanese, and Russian.

ADAMS is free, easy to use, and its multi-level access control ensures the privacy and security of your information.

Ask your relevant anti-doping organisation if ADAMS is something they use or plan to use in the future.

#### WHERE ABOUT RULE-ADAMS

If in a Registered Testing Pool (RTP), Athlete must provide current and accurate whereabouts information, including your: ONE HOUR SLOT OF LOCATION ON DAILY BASIS

- home address
- training schedule and venues
- competition schedule
- regular personal activities such as work or school

If Athlete is not present at the specified location during the hour this could be declared a missed test. Even if you are not included in an RTP you could be requested to provide similar whereabouts information.

#### WHERE ABOUTS INFORMATION

YOU, and you alone, are responsible for your whereabouts.

YOU CAN'T BLAME your representative or agent for inaccurately filing or forgetting to update your whereabouts.

If you are included in a RTP, you must provide your whereabouts EVERY THREE MONTHS so that you can be located for testing.

If you are included in an RTP, REMEMBER, there may be consequences for failing to provide accurate whereabouts information.

Contact Your IF or NADO for more detailed information on their requirements.

WHEREABOUTS information is a crucial element in supporting your right to clean sport.

#### THERAPEUTIC USE EXEMPTION (TUE)

As an athlete, you may have an illness or condition that requires a particular medication. If this medication is on the Prohibited List, you may be granted a Therapeutic Use Exemption (TUE) which gives you permission to take it.

TUEs ensure that you are able to obtain treatment for a legitimate medical condition—even if that treatment requires a prohibited substance or method. Thus TUE process avoids the risk of sanctions due to a positive test.

Athlete who may be subjected to doping control must request a TUE before taking a prohibited medication. All information in this request remains strictly confidential.

An application must be made at least 30 days before taking part in an event. In exceptional cases or true emergencies, a TUE may be approved retroactively

#### TUE PROCESS—CONTD

- 1.Request a TUE form from your relevant anti-doping organisation (ADO) or through ADAMS.\*
- 2. Your physician fills out the TUE form and send it back to your ADO.
- 3 Once a TUE is requested, a panel of experts selected by the ADO reviews your request and will grant a TUE if:
- A:-Your health will be significantly impaired if you do not take the substance.
- B:-The substance does not enhance your performance beyond what brings you back to normal health.
- C:-There are no alternative treatments available.
- 4. The ADO advises if you can take the requested medication or not. In the case of a denied request, you will be informed of the reasons.
- You have the right to appeal the decision.

## TUE TIPS—DURING DOPING CONTROL

Declare the approved medication on your Doping Control Form.

Specify that a TUE has been granted.

Show a copy of the TUE approval to the doping control officer.

Contact your IF or NADO for more information.

WADA does not grant TUEs.

#### RESULT MANAGEMENT

Sanctions for violating anti-doping regulations may range from a reprimand to a lifetime ban.

The period of ineligibility may vary depending on the type of antidoping violation, the circumstances of an individual case, the substance, and the possible repetition of an anti-doping rule violation.

As an athlete, you have the right to request a B sample analysis. You are entitled to a fair hearing and to appeal any decision regarding a positive test or sanction imposed on you following an anti-doping rule violation.

## Athletes

#### **Rights & Responsibilities**

#### **Result Management**

- In case of adverse analytical finding by the laboratory, when asked to appear in the hearing, argue the case along with documents including doctors' prescription if it is a case of inadvertent intake of medication. This is especially important in the case of specified substances
- Exercise your discretion to ask for B sample test in your presence at the Laboratory, if A sample is tested positive
   You will have to bear the expenses on this test.

# India in 2016 was in third position with Russia 148 cases, Italy 123 and had 96 positive cases

Dope cases around the world increased by 13% in 2017, India in top 10: Wada Total cases 1804

Russia's athletics team was barred from the 2016 Rio Olympics, London's 2017 world championships and the 2018 Winter Olympics.

The World Anti-Doping Agency (WADA) on December 10, 2017 banned Russia from major global events – including the 2020 Tokyo Olympics and the 2022 World Cup in Qatar – for four years



## **Athletes**

**Doping Control** 

Rights & Responsibilities



## Doping: Sporting world's worst kept secret



#### DIETARY SUPPLEMENTS

Extreme caution is recommended regarding supplement use.

 The use of supplements by athletes may lead to ADRV since the manufacturing and labelling of supplements does not follow strict rules. This may lead to a supplement either deliberately or inadvertently containing a substance that is not listed as an ingredient on the label, which is prohibited under anti-doping regulations.

#### DIETARY SUPPLEMENTS

- A significant number of positive tests have been attributed to the use of supplements.
- Advice for athletes on supplement use includes:
- Assessing the need, potential benefit and risks of supplement use
- Considering batch-tested products to minimise risk of contamination
- Being aware that taking a poorly labelled supplement is not an adequate defence in a doping disciplinary hearing

### SOCIAL DRUGS

Social drugs included on the WADA Prohibited List:

- Cannabinoids
- Narcotics
- Amphetamines
- Cocaine
- Above are prohibited in-competition only. However, athletes should be advised that their use out-ofcompetition may lead to an Adverse Analytical Finding in-competition due to delayed excretion of these substances and their metabolites from the body.

#### FOOD STUFF

Athletes are advised that certain food and drink products may contain prohibited substances.

- Clenbuterol in meat from a few countries used as growth promoter in animals
- Narcotics, such as morphine, in foods containing a large amount of poppy seeds
- Cannabinoids in food and drink products containing marijuana or cannabis extracts
- Though subjected to threshold levels during doping testing procedures.

# WHY ARE ATHLETES TAKING DRUGS???

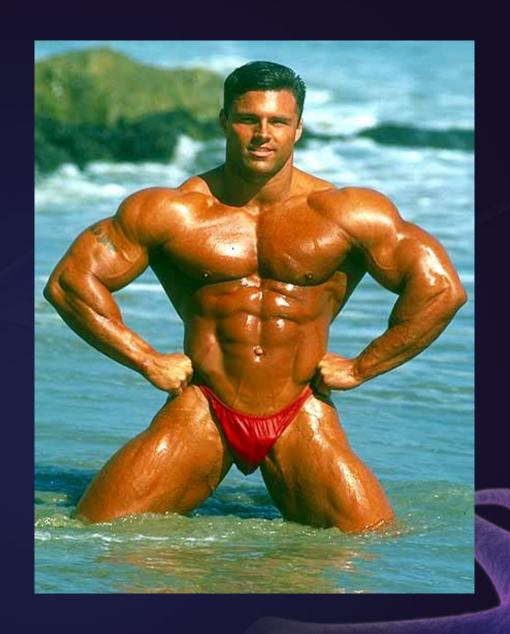
- Amateurism is Fading, Professionalism
- They know that winning can reap them more than a gold
- Awards, Monetary Incentives, Job Security
- Seniors, Coaches & Peer pressure
- Pressure from Nation, Political, Society, Parents Community & Media
- Name, Fame & Glory
- Glamorous Life
- To Cope Stress, Strain and to Relax
- To get Confidence

#### WADA PROHIBITED LIST

- S1 ANABOLIC AGENTS Anabolic Androgenic Steroids (AAS)-GENERAL HAZARDS
- Greasy skin and acne
- Infertility
- Hypertension
- Liver, Cardiovascular and kidney dysfunction
- Aggressive behaviour
- Tumour

#### SIDE EFFECTS IN MALES

- Breast development
- Baldness-Alopecia
- Testicular atrophy-shrinking
- Diminished male hormone production
- Diminished sperm production- Oligospermia
- Impotence
- Prostate cancer
- Mood swings, Aggressive and Suicidal Behaviour



#### SIDE EFFECTS IN FEMALES—AAS

- Male pattern-- facial & body hair growth and baldness
- Abnormal Menstrual cycles
- Enlarged clitoris
- Decreased size of breast
- Deeper voice (hoarseness)
- Infertility

# **FAILURE IN SPORTS** RioZo16 RioZo16 20 9102012

#### SIDE EFFECTS IN OTHER ANABOLICS

- Tremors
- Restlessness, aggressive behaviour, Anxiety

Heart Conduction disorders--Arrhythmias

Muscle cramps



#### **S2 PEPTIDE HARMONES**

- PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES, AND MIMETICS
- 1. Erythropoietins (EPO) and agents affecting erythropoiesis
- 1.2 Hypoxia-inducible factor (HIF) activating agents, e.g.Cobalt
- 3. 1.3 GATA inhibitors, e.g.K-11706.
- 4. 1.4 TGF-beta (TGF-β) signalling inhibitors, e.g. Luspatercept;Sotatercept.
- 5. 1.5 Innate repair receptor agonists, e.g. Asialo EPO; Carbamylated EPO (CEPO).

## PEPTIDE HARMONES

- **2.1** Chorionic Gonadotrophin (CG) and Luteinizing Hormone (LH) and their releasing factors in males
- 2.2 Corticotrophins and their releasing factors, e.g. Corticorelin;
- **2.3** Growth Hormone (GH), its fragments and releasing factors, Growth Hormone Releasing Hormone (GHRH).
- **3.** Growth Factors and Growth Factor Modulators, including, but not limited to:
- Fibroblast Growth Factors (FGFs);
- Hepatocyte Growth Factor (HGF);
- Insulin-like Growth Factor-1 (IGF-1) and its analogues;
- Mechano Growth Factors (MGFs);
- Platelet-Derived Growth Factor (PDGF);
- Thymosin-β4 and its derivatives e.g. TB-500;
- Vascular-Endothelial Growth Factor (VEGF);

## SIDE EFFECTS OF EPO

- Increased viscosity of blood
- Hypertension
- Myocardial infarction
- Cerebral infarction
- Pulmonary embolism
- Convulsions

## SIDE EFFECTS OF HGH

- Acromegaly (overgrowth of limbs)-Protruding forehead, eyebrows, & jaw
- Soft tissues swelling
- Abnormal growth of organs-Heart-Hypertension-Heart failure
- Damage to Liver, Thyroid & Vision
- Arthropathies (joint disorders)-Crippling Joint pains
- Diabetes mellitus

### HAZARDS PEPTIDE HARMONES

- Side Effects of insulin:-Hypoglycaemia, Nausea, Drowsiness, Brain malfunctioning
- Side Effects of hCG:-Menstrual disorders, Gynecomastia (Breast development in males).
- Side Effects of ACTH:-Insomnia, hypertension, Diabetes, peptic Ulcers, Osteoporosis

## S3 Beta- 2 AGONISTS

- » Only Inhaled Puffs allowed Eg Salbutamol, Salmetrol, Formetrol
- » TUE MAY BE REQUIRED FOR ASTHMATICS OR ATHLETES WITH EIA
- » TERBUTALINE IS COMMONLY SEEN IN COUGH SYRUPS AND ATHLETES INADVERTENTLY CONSUME IT (ASCORIL OR BRO-ZEEDEX)

# S4 HARMONE ANTAGONISTS & MODULATORS

- » USED TO COUNTER THE SIDE EFFECTS OF AAS-
- » HOT FLUSHES
- » FLUID RETENTION
- » GASTRO INTESTINAL DISORDERS
- » VENOUS THROMBOSIS

## S5 DIURETICS AND MASKING AGENTS

- » DIZZINESS AND FAINTNESS
- » DEHYDRATION
- » MUSCLE CRAMPS
- » HYPOTENSION
- » DECREASED CORDINATION & BALANCE
- » CONFUSED & MOOD SWINGS
- » DEVELOP CARDIAC DISORDERS

## S6 STIMULANTS

- » COMMON -AMPHETAMINE, COCAINE, EPHEDRINE, PSEUDO EPHEDRINE- COMMON COLD & COUGH MIXTURES
- » INSOMNIA-CANT SLEEP
- » ANOREXIA-LOSS OF APPETITE
- » INVOLUNTARY SHAKING & TREMBLING
- » ANXIETY & AGGRESSIVE, HALLUCINATIONS
- » PALPITATION & IRREGULAR HEART RATE & BEAT-HYPERTENSION
- » INCREASED BODY TEMPERATURE

### S7 NARCOTICS

- » WEAKENED IMMUNE SYSTEM
- » ADDICTION & DEPENDANCE
- » LOSS OF BALANCE & COORDINATION
- » INSOMNIA & DEPRESSION
- » NAUSEA, VOMITING & CONSTIPATION
- » DECREASED HEART RATE & SUPPRESSED RESPIRATORY SYSTEM

## S8 CANNABINOID

MARIJUANA, HASHISH & CANNABIS-RECREATIONAL DRUGS

- »LOSS OF CONCENTRATION & IMPAIRED MEMORY
- » DEPENDANCE & DEPRESSION
- »IMPAIRED BALANCE & COORDINATION
- »INCREASED HEART RATE & APPETITE
- »DROWSINESS & HALLUCINATIONS
- »LUNG & THROAT CANCER, CH BRONCHITIS

## S9 GLUCOCORTICOSTEROIDS

- » MUSCLO SKELETAL DISORDERS
- » SWELLING IN LIMBS
- » DIABETES
- » INFECTIONS
- REQUIRE TUE

## P1 ALCOHOL

- » POOR REFLEXES & COORDINATION
- » SPEECH SLURRED
- » DROWSINESS
- » POOR JUDGMENT
- » DEPENDANCE & ADDICTION

### P2 BETA BLOCKERS

NOT ALLOWED IN SHOOTING, ARCHERY, SNOOKER, BILLIARDS, BOB SLEIGH, MOTOR SPORTS

» DECREASED HEART RATE AND BLOOD PRESSURE

## M1 ENHANCEMENT OF OXYGEN TRANSFER

#### **BLOOD DOPING**

- » HYPERTENSION
- » STROKE
- » PULMONARY EMBOLISM
- » KIDNEY DYSFUNCTION
- » CARDIAC ARREST

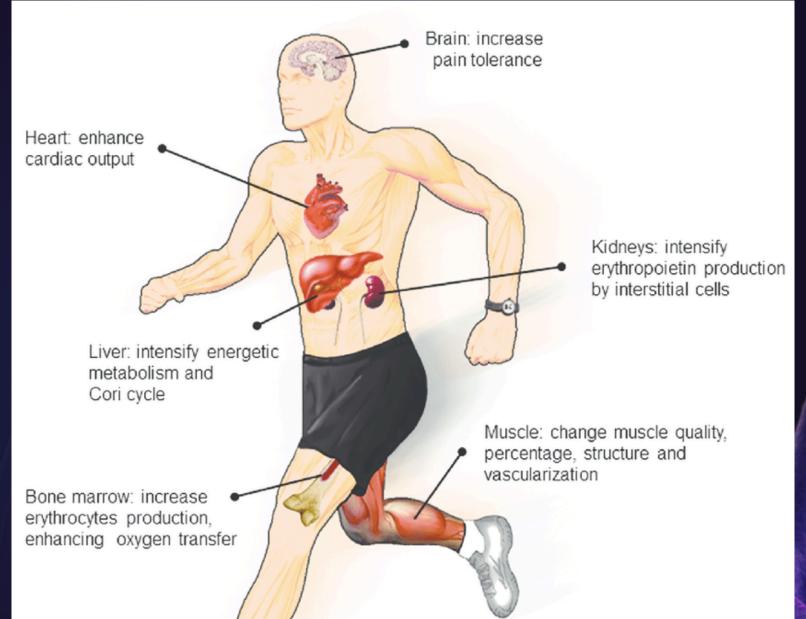
# M2 CHEMICAL& PHYSICAL MANIPULATION

**CATHETERIZATION** 

» INFECTIONS OF URINARY BLADDER & GENITALS



## M3 GENE DOPING



## Olympic Champion Leaves -???



#### INTERESTING NUMBERS (2017 ADRVS REPORT)

245,232 total number of samples collected

2,749 reported as adverse analytical finding (AAFs as on May 31, 2019)

#### 1,459 (53%)

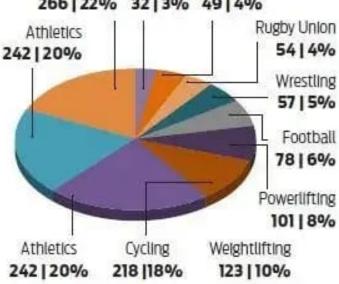
confirmed as ADRVs (sanctions) — 1,135 male (78%) and 324 female (22%) in 89 sports/ disciplines

772 **(28%)** still pending

### **UNFAIR GAME**

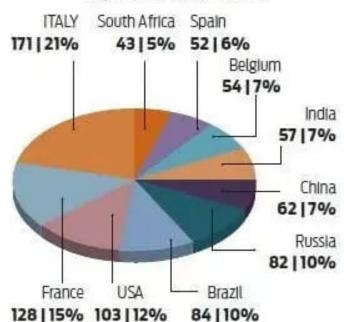
Sports with highest number of ADRVs committed by athletes in 2017

Bodybuilding Aquatics Boxing 266 | 22% 32 | 3% 49 | 4%



#### ON THE MAP

Nations that have recorded the highest number of ADRVs



ADRV - ANTI-DOPING RULE VIOLATION

## **INDIA DOPING STATS 2019-20**

- » TOTAL CASES 99 (89 in Year 2018 -Wt lifting 21 & Athletics 14)
- » WT LIFTING (29), ATHLETICS (27) & WRESTLING (12)
- » UPTO 2018 TOTAL CASES IN INDIA 803
- » AAS 510 (63.5%),STIMULANTS 136 (16.9%) DIURETICS 55 (6%)





## **IMPORTANT LINKS**

- www.wada-ama.org
- https://www.usada.org/
- https://www.asada.gov.au/
- » <a href="https://www.globaldro.com/">https://www.globaldro.com/</a>
- https://adams.wada-ama.org/

## ATHLETES AGAINST DOPING

