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Jacked & Jailed: Navigating the Legal Battleground of Bodybuilding Doping

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This comprehensive article investigates the complex link between heart health and bodybuilding, going deep into the history of doping in the never-ending quest for the ideal physique. It highlights the widespread use of performance-enhancing drugs in bodybuilding, illuminating the dangers to one's health as well as the powerful attraction of these medicines. By carefully navigating the maze of testing regulations, legal requirements, and the fallout from well-publicized incidents and scandals, the article explains the significant effects of these procedures on general health. Our article uniquely addresses the underlying reasons tempting individuals towards steroid abuse, providing insights into the types of supplements prevalent in the bodybuilding culture. It further delves into the various testing procedures employed to maintain the integrity of sports and examines alternative paths to fitness that prioritize long-term health over expedient results. Beyond this, the piece highlights several routes to fitness and emphasizes how important anti-doping organizations are to maintaining sports integrity. It includes insightful commentary from the viewpoints of athletes who have faced similar difficulties. A key finding of this research endeavour is the importance of community awareness in fostering a forward-thinking viewpoint that supports a bodybuilding and fitness culture that is sustainable and balanced, emphasizing health above convenience. Finally, the article frames itself as a catalyst for a paradigm change towards a holistic approach, encouraging a community that values health as the foundation of physical fitness, rather than just as an examination of bodybuilding methods.

Keywords: *steroids, bodybuilding, performance enhancement drugs, heart attacks, anti-doping laws.*

INTRODUCTION

'If you take steroids, you have to pay the price. They can kill you; there are no shortcuts. It's like going to bed with a rattlesnake, it's got to get you.'[1]

– Jack Lalanne

Steroids may promise a ticket to the top, but the view from the summit is far more rewarding when you have climbed there without compromising your body's integrity. In the dynamic world of bodybuilding, where developing the ideal physique is paramount, a contemporary issue is subtly influencing the story. Think of it as the untold tale from behind the scenes of performance-enhancing drugs in the current fitness culture. The pursuit of physical excellence, whether in sports or personal aesthetic goals, has long been associated with the enticement of performance-enhancing substances.

Doping, the use of drugs to gain an unfair advantage in athletic competition, has cast a shadow over bodybuilding, a sport that celebrates high-toned bodies and an unwavering commitment to body modification. Doping promises quick results and improved performance, but it comes at a high price. The side effects of these substances range from mild discomfort to serious health complications such as heart enlargement, muscle cramps, and even death. The history of bodybuilding is full of stories of athletes looking for the 'magic pill' to improve their performance.

Human Growth Hormone (HGH), a hormone naturally produced in the body, is a popular choice among bodybuilders looking to increase muscle mass and improve performance. However, its use is not without risks and can create side effects such as joint pain, muscle weakness, fluid retention, diabetes, heart enlargement (cardiomegaly), and high blood pressure.

[1] '25 Best Steroid Quotes and Sayings for Fitness People' (*Greeting Ideas*) <https://greetingideas.com/anti-steroid-quotes/> accessed 17 November 2023

The dark side of doping has been tragically brought to light by several high-profile cases.

In 1967, British cyclist Tom Simpson died of a heart attack due to dehydration and amphetamine use during the Tour de France. The incident sparked outrage and led to a ban on performance-enhancing drugs by the World Cycling Federation.[2]

In 1998, the Festina cycling team was arrested for transporting amphetamines, erythropoietin and steroids during the Tour de France, a police investigation began and the team was expelled.[3]

The scandal played a key role in the creation of the World Anti-Doping Agency (WADA)[4] in 1999.

Erythropoietin (EPO), a hormone that stimulates the production of red blood cells, is used to improve endurance. However, it increases your risk of stroke and heart attack. Creatine is a natural substance known for its ability to improve muscle strength and power, Although creatine is generally safe, it can cause dehydration and muscle cramps in some people. Among these, many other PEDs offer many benefits but are expensive.[5]

Our piece serves as more than just a manual; it's an invitation to understand the current state of affairs in the bodybuilding and fitness industry. Imagine it as a journey into the beating heart of our modern tale, delving into the secrets of everyday chemicals, the dangers associated with them, and the crucial connection between heart health and bodybuilding. It's like having a behind-the-scenes look, raising awareness, and emphasizing how important it is to take a balanced, health-focused approach. So, come along on the ride as we unveil this exploration.

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[2] Geoffrey Nicholson, 'From the Archive, 14 July 1967: Simpson Dies after Collapse on Tour' *The Guardian* (14 July 2012) <https://www.theguardian.com/theguardian/2012/jul/14/archive-1967-simpson-death-tour-de-france> accessed 17 November 2023

[3] Pierre-Antoine Souchard, 'Festina Team Excluded from Tour'(*Washingtonpost*, 17 July 1998) <https://www.washingtonpost.com/wp-srv/sports/cycling/longterm/1998/tour/articles/booted18.htm> accessed 17 November 2023

[4] 'Who We Are' (*World Anti Doping Agency*) <https://www.wada-ama.org/en/who-we-are> accessed 17 November 2023

[5] 'Erythropoietin' (*Cleveland Clinic*) <https://my.clevelandclinic.org/health/articles/14573-erythropoietin> accessed 17 November 2023

BODYBUILDING AND HEART ATTACKS

How do steroids, despite their muscle-building allure, silently sabotage the heart's pumping chamber, paving the way for congestive heart failure and potential heart attacks? Let's unmask this hidden mystery.

In the world of bodybuilding, the desire for the perfect physique can sometimes lead enthusiasts down a dangerous path. According to a 2014 statement from the Endocrine Society[6], steroids are pointed out as potential culprits behind the enlargement of some bodybuilders' hearts. This enlargement, particularly in the left ventricle, can weaken the heart and set the stage for congestive heart failure. Steroids don't stop there; they bring along a host of cardiovascular complications, including elevated blood pressure, increased cholesterol levels, and the risk of irregular heartbeats, blood clots, heart attacks, and strokes.

To address potential heart issues, bodybuilders often resort to measures such as taking hypertension medications or even donating blood to counteract the surplus of red blood cells induced by steroids. However, lurking in the bodybuilding pharmacopoeia are diuretics, commonly known as 'water pills.' These pills, while helping to shed excess water weight for a chiseled appearance on stage, can pose serious dangers.

Diuretics push the kidneys to release not only water but also crucial electrolytes like sodium and potassium. Disrupting this delicate balance can wreak havoc on the heart's electrical function. Imagine competitors, striving for extreme dehydration, facing a risky dance with fate. They may experience full-body cramps, and some even faint, sometimes right on stage. The stakes are high, and the consequences range from uncomfortable to deadly.[7]

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[6] 'Endocrine Society Calls for Large-Scale Studies to Evaluate Testosterone Therapy Risks' (*Endocrine Society*, 07 February 2014) <https://www.endocrine.org/news-and-advocacy/news-room/2014/endocrine-society-calls-for-large-scale-studies-to-evaluate-testosterone-therapy-risks> accessed 17 November 2023

[7] Amy B Cadwallader et al., 'The Abuse of Diuretics as Performance-enhancing Drugs and Masking Agents in Sport Doping: Pharmacology, Toxicology and Analysis' (2010) 161(1) British Journal of Pharmacology <https://doi.org/10.1111/j.1476-5381.2010.00789.x> accessed 17 November 2023

A tragic example is the case of Alena Kosinova, a Czech bodybuilder whose life took a devastating turn backstage at a contest in Spain. Battling the consequences of diuretic use, she answered questions about the pills she had taken before succumbing to convulsions and losing consciousness. In the intense world of bodybuilding, the pursuit of perfection comes with its share of dangers, and the heart, both figuratively and literally, bears the burden of the choices made in the name of the ideal physique.[8]

HISTORY OF DOPING IN BODYBUILDING

Bodybuilding has a centuries-old tradition of delving into the world of performance-enhancing practices. From ancient Greece's fascination with physical prowess to the mysterious alchemists seeking a magical edge, the history of bodybuilding carries a continuous thread of exploration into the realm of enhancing physical abilities. It's a tale that spans the ages, revealing the enduring quest for a competitive edge in the pursuit of the perfect physique. History is punctuated with tales of individuals on the hunt for a 'magic potion'—a shortcut to attain their goals and get to be better than the ordinary.

The history of doping in bodybuilding unfolds through distinct phases. Originating in the early 20th century with strongman influences, the formative phase laid the groundwork for gym culture. The 1970s witnessed a globalization and commercialization surge, epitomized by the IFBB and stars like Arnold Schwarzenegger. However, the late 1980s and 90s brought a crisis as public discourse questioned the health risks of drug use. Responding to concerns, a 'civilizing process' ensued, transforming gym culture into a drug-free fitness enterprise.[9]

In recent times, there has been a worrying increase in steroid use in bodybuilding, complicating efforts to redefine the sport within the broader fitness culture. Despite attempts to shake off the

[8] Bonnie Berkowitz and William Neff, 'How Bodybuilders, Many on Steroids, Risk Their Bodies and Brains' (*Washington Post*, 8 December 2022) <https://www.washingtonpost.com/investigations/interactive/2022/bodybuilding-health-risks/> accessed 17 November 2023

[9] Jesper Andreasson and Thomas Johansson, 'Bodybuilding and Fitness Doping in Transition. Historical Transformations and Contemporary Challenges' (2019) 8 Social Sciences <https://doi.org/10.3390/socsci8030080> accessed 17 November 2023

association with steroids and its negative aspects, the problem seems to be growing. This setback goes against the aim, in the fourth phase of fitness doping's history, to clean up the gym and fitness culture. The rise in steroid use raises serious health concerns and challenges the effectiveness of existing regulations. While natural bodybuilding emerged as a drug-free alternative, this resurgence of steroid use highlights the ongoing struggle to separate bodybuilding from its historical ties to substance abuse, posing a potential setback for a healthier and more widely accepted fitness culture.[10]

COMMON PERFORMANCE-ENHANCING SUBSTANCES AND RISK ASSOCIATED

There are various substances available in the market to increase the performance of an individual both legal and illegal. However, we need to know about them in order to make the right choices. We should have an idea of how these substances work and they can impact our health. Athletes use anabolic steroids to increase their muscle mass and strength. Another name for these medications is anabolic-androgenic steroids. They are designed to function similarly to testosterone, a hormone that the body produces. The body responds to testosterone in two ways aids muscle growth and causes characteristics like a deeper voice and facial hair. Athletes frequently use lab-made versions of testosterone as anabolic steroids. The whole here is to alter and play with your hormones to direct them in increasing muscle mass and performance.

People who use anabolic steroids put themselves at risk for several serious health issues. Severe acne and a higher chance of tendon problems—such as swelling or tearing—that link muscles and bones are among them. In addition, users might experience changes in liver function or the development of liver tumours, which could cause long-term harm. Aside from altering cholesterol levels, anabolic steroids also raise 'bad' cholesterol (LDL) and lower 'good' cholesterol (HDL), which raises the risk of cardiovascular problems like high blood pressure and poor blood flow. Beyond the obvious physical effects, users may experience increased

[10] Jesper Andreasson and Thomas Johansson, 'Bodybuilding and Fitness Doping in Transition. Historical Transformations and Contemporary Challenges' (2019) 8(3) Social Sciences <https://doi.org/10.3390/socsci8030080> accessed 17 November 2023

aggression or rage, mental health issues like depression, and an uncontrollably growing need for steroids. Additionally, there is a rise in the use of needles for drug administration.

ANDROSTENEDIONE

The hormone androstenedione, or andro, is a naturally occurring substance that the human body produces. It is a precursor to both testosterone and a type of estrogen. Although andro can be produced in a lab, there has been conflicting evidence regarding its efficacy as an enhancer of athletic performance. Scientific research has questioned the veracity of certain drug manufacturers' and fitness magazines' claims that andro products help athletes train harder and recover faster. According to research, andro does not appear to have a significant effect on testosterone levels or increase muscle strength.

It's crucial to remember that andro usage has different legal statuses. Although it is acceptable when recommended by a medical professional for particular medical conditions, using it as a performance-enhancing drug, particularly in the context of doping, is strictly prohibited in the United States. As such, individuals should exercise caution and adhere to legal guidelines when considering the use of androstenedione for athletic purposes.

Athletes frequently seek out human growth hormone (HGH), also called somatotropin, to increase muscle growth and boost performance. Nevertheless, research hasn't proved beyond a reasonable doubt that HGH greatly increases strength or endurance. Although HGH can only be prescribed for certain medical conditions, athletes may abuse the hormone to obtain an unfair advantage in competition. Joint pain, muscle weakness, fluid retention, diabetes, vision issues, carpal tunnel syndrome, difficulty controlling blood sugar, an enlarged heart (cardiomegaly), and high blood pressure are possible side effects linked to HGH use.[11]

ERYTHROPOIETIN (EPO)

A hormone that increases red blood cell counts and improves oxygen delivery to the body's organs, helping to treat anaemia in people with severe kidney disease. Long-term exercisers

[11] 'Performance-Enhancing Drugs: Know the Risks' (*Mayo Clinic*, 27 June 2023) <https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/performance-enhancing-drugs/art-20046134> accessed 16 November 2023

frequently use a lab-made version known as epoetin. However, the use of EPO in doping has been linked to serious health risks, including an increased likelihood of stroke, heart attack, and blocked arteries in the lungs.[12]

CREATINE

A popular supplement among sports is a naturally occurring chemical that is also accessible in creatine monohydrate supplements. It assists in the release of energy in muscles, potentially giving sportsmen short bursts of power. Creatine appears to boost the generation of adenosine triphosphate (ATP), a critical energy source in cells, particularly during activities involving fast bursts of movement such as weightlifting or sprinting. However, there is no solid data to support its efficacy in increasing performance in aerobic sports that includes greater breathing and heart rates. Despite its largely accepted safety, creatine supplementation may cause negative effects such as weight gain and stomach or muscle cramping. Athletes attempting to grow muscle mass may gain weight due to the extra fluids. Additional water is retained by creatine, which, in turn, raises the risk of dehydration.[13]

We need to classify safe and unsafe supplements to make the right choices.

Several dietary supplements are typically classed as safe ergogenic aids, and their potential advantages in athletic performance have been acknowledged. The Dietary Supplement Health and Education Act of 1994 has considered the following supplements safe:

- **Hydroxymethylbutyrate (HMB):** An amino acid present naturally in the body, HMB is thought to improve muscular strength and delay muscle breakdown during exercise. While scientific evidence for its usefulness is ambiguous, HMB is usually deemed safe at typical dosages of roughly 3 grams.
- **Conjugated Linoleic Acid (CLA):** This naturally occurring fat is famous among athletes, particularly bodybuilders, for its ability to reduce muscle damage and increase lean body mass following exercise. CLA may induce negative effects such as upset stomach and exhaustion, despite its ability to reduce body fat.

[12] 'Side Effects of Erythropoietin' (*Macmillan Cancer Support*) <https://www.macmillan.org.uk/cancer-information-and-support/treatments-and-drugs/erythropoietin-epo> accessed 15 November 2023

[13] 'CREATINE: Overview, Uses, Side Effects, Precautions, Interactions, Dosing and Reviews' (*WebMD*) <https://www.webmd.com/vitamins/ai/ingredientmono-873/creatine> accessed 17 November 2023

- **Carnitine:** Carnitine is known for delivering fatty acids into mitochondria for energy generation and is thought to improve workout performance. Despite the absence of scientific proof, many athletes utilize this vitamin. Excessive use (more than 3 grams per day) may cause nausea and reactions with certain drugs.
- **Chromium**: A trace mineral that is necessary for daily physiological functioning, chromium is considered to promote lean muscle mass and energy levels. Although there is minimal data to support its usefulness in improving athletic performance, it is usually regarded as safe when taken in suitable dosages.

Unsafe supplements

Certain ergogenic aids are not only dangerous but they are also prohibited by sporting organizations such as the NCAA and the Olympic Committee owing to their ability to provide unfair advantages and cause considerable injury to players. These are some examples:

- **Anabolic and Other Steroids:** This group includes androstenedione, stanozolol, axiron, and fortesta. Aside from being prohibited in sports, these steroids can have a variety of possibly catastrophic adverse effects.
- **Dehydroepiandrosterone (DHEA):** Although DHEA is a naturally occurring steroid in humans, utilizing synthetic forms to boost steroid synthesis is thought to be potentially harmful.
- **Diuretics:** Athletes to dilute performance-enhancing substances may use Diuretics. Diuretics, on the other hand, might have negative side effects such as cramps, disorientation, blood pressure dips, and electrolyte abnormalities.
- **Blood Doping:** This process involves boosting red blood cells to increase oxygen delivery to muscles and lungs. It can be achieved through blood transfusions or drugs like erythropoietin (EPO). Misuse of EPO can lead to serious complications such as blood clots and death.
- **Ephedrine:** A stimulant of the central nervous system that works similarly to adrenaline, ephedrine is known to have major negative effects on the cardiovascular system,

including stroke. Because of its possible risks, it has been outlawed by the FDA and sports organizations.

- **Human Growth Hormone (HGH):** This hormone promotes cell division and regeneration and was first created to treat growth problems in children. Although the use of this substance is prohibited in all professional sports, athletes may abuse it to get a competitive advantage. Chronic illnesses and enlarged organs are examples of potential consequences.[14]

The ban on these substances represents a commitment to ethical competition, fair play, and the protection of athletes from potentially fatal effects. These chemicals pose serious hazards to the health and well-being of athletes. It is highly recommended that athletes follow anti-doping guidelines and put their health first.

YOUTHFUL TEMPTATIONS

Due to social media's widespread impact on young people, a worrying trend has been unintentionally sparked, leading some people to use steroids to achieve an idealized body image. The constant onslaught of flawlessly shaped bodies displayed on social media sites like Instagram and TikTok can lead to the creation of an unattainable standard that young people feel pressured to reach. The carefully chosen photos of influencers and fitness enthusiasts increase the pressure to meet society's expectations of an attractive figure. The need for a toned, muscular body becomes entwined with the pursuit of likes, following, and approval. Because of the digital age, some young people may feel inadequate and turn to drugs or other quick fixes like steroids to match the unrealistic body standards that social media has set. Such unrealistic and unachievable standards set by social media influencers, film celebrities, models, and sports persons discourage the youth who are not able to achieve such physique by mere diet and exercise forcing them to indulge in steroid abuse. Additionally, the usage of performance-enhancing drugs may be viewed as a shortcut to success in an atmosphere where quick changes and immediate results are valued in the online fitness culture. While it unintentionally fosters a

[14] Tim Jewell, 'All about Anabolic Steroids' (*Healthline*, 26 March 2020) <https://www.healthline.com/health/anabolic-steroids#takeaway> accessed 17 November 2023

deadly cycle of comparison, competitiveness, and the erroneous quest for physical perfection, the virtual world can also serve to connect people.

LEGAL INCENTIVES

Bodybuilding's growing popularity has brought the sport to the forefront, captivating individuals with its aesthetic appeal and physical transformations. However, as the sport gains traction and public attention, its legal framework within India remains complex and evolving. Due to the lack of official sport status, the legal landscape for bodybuilding practice and competition remains ambiguous. The pursuit of peak physical performance has led to the unethical use of Performance-enhancing Enhancing Drugs (PEDs) among bodybuilders, casting a shadow of doubt over the sport's integrity. However, the potential risks associated with PEDs, including liver damage, cardiovascular disease, and psychological effects, raise serious concerns. Without clear regulations or bans on PEDs, their use may become normalized, potentially jeopardizing the health and well-being of bodybuilders and the sport's future. Therefore, legalizing PEDs could lead to clean athletes taking drugs and risking their health for competitive success.

Furthermore, it is made clear that abuse in sports, for example, bodybuilding, should be strictly rejected. Such practices are not only illegal as doping, but also far exceed the therapeutic efficacy of researched and officially recognized products. Thus, it can pose serious health risks.[15]

Anti-doping agents have become the cornerstone of the regulatory framework for bodybuilding. International organizations such as the World Anti-Doping Agency (WADA)[16] have established comprehensive anti-doping codes, outlining prohibited substances and testing procedures. These measures aim to level the playing field and protect the health of athletes.

However, there were efforts made by the government and many organisations to induce rules and regulations about the growing sport of bodybuilding:

[15] *N V Organon v inforassist.com* Case No D 2005-0181
[16] 'What We Do' (*World Anti Doping Agency*) <https://www.wada-ama.org/en/what-we-do> accessed 21 November 2023

IFBB: International Federation of Bodybuilding and Fitness (IFBB) is the world bodybuilding governing body. IFBB is responsible for organizing several international bodybuilding competitions, including Mr. Olympia and Ms. Olympia. IFBB has a strict anti-doping policy, enforced through random doping tests. The IFBB also has a set of rules governing bodybuilding competitions, designed to ensure fair and safe competition.[17]

IBBF: The Indian Bodybuilding Federation (IBBF) is the national governing body for bodybuilding in India.[18] It is affiliated with IFBB and is responsible for organizing national bodybuilding competitions in India. IBBF is recognized by the Ministry of Youth Affairs and Sports, Government of India as the only national sports federation for bodybuilding in India and is recognized by the Sports Authority of India (SAI) and the National Anti-Doping Agency Recognition (NADA).[19]

The ICN India is the Indian branch of the International Confederation of Natural Bodybuilding (ICN). ICN is a drug-tested bodybuilding organization that promotes natural bodybuilding and fitness. ICN India was founded in 2012 and is headquartered in New Delhi. ICN India has a strict anti-doping policy and all its competitions are subject to anti-doping controls. ICN India is committed to promoting natural bodybuilding and fitness in India. This organization believes that natural bodybuilding is a healthy and sustainable way to achieve a fit and muscular physique. ICN India also believes that anti-doping competitions are necessary to ensure a fair and level playing field for all athletes. ICN India has taken several initiatives to promote natural bodybuilding and fitness in India.

These initiatives include:

- Organizing drug-tested bodybuilding competitions;
- Providing education and resources on natural bodybuilding;
- Advocating for drug-free sport.

[17] 'International Fitness and Bodybuilding Federation' (*IFBB*, 08 December 2023) <https://ifbb.com/> accessed 21 November 2023
[18] *Ibid*
[19] *Ibid*

ICN India's anti-doping policies:

- All athletes must be drug-tested before they can compete in an ICN India event.
- Athletes are subject to random drug testing throughout the year.
- Athletes who test positive for banned substances will be disqualified from competition and may face other sanctions.[20]

Gymnasiums and Fitness Centres Bill, 2016[21]: The Gyms and Fitness Centers Bill, 2016 is an important step in regulating the fitness industry in India. The bill aims to establish a regulatory framework for gyms and fitness centres in India. One of the key elements of the bill is its emphasis on anti-doping.

The proposed bill would require all gyms and fitness centers to: Display a list of prohibited substances on their premises Provide information to their members about the dangers of doping Report any suspected cases of doping to the relevant authorities.

National Anti-Doping Act 2022[22]: The Act, while emphasizing the pursuit of UNESCO and WADA's objective of ensuring fair and clean sport by observing the highest level of integrity in and out of competition, aims to provide a legal framework and bring dignity to the National Anti-Doping Agency (NADA) to regulate anti-doping activities in sports. Furthermore, the law provides for the creation and establishment of the National Anti-Doping Council in Sports, responsible for overseeing the activities of NADA, ensuring the implementation of international standards, obligations and commitments as well as such as compliance monitoring.

KEY ASPECTS OF THE BILL

Doping Prohibition: This bill prohibits athletes, their support staff (coaches, trainers, managers, and team staff) and other sports personnel from engaging in doping. These persons must ensure that they do not violate the following rules:

[20] *Ibid*
[21] Gymnasiums and Fitness Centres (Regulation) Bill 2016
[22] National Anti Doping Act 2022

- A prohibited substance is present in the athlete's home or a prohibited substance is imprinted on the athlete's body.
- Stash of illegal drugs, or use or attempt to use illegal drugs.
- Refuse to provide a sample.
- Dealing in prohibited substances o Concealing or aiding in the concealment of a crime.[23]

TESTING PROCEDURES

Urinalysis: Various organizations, including the International Powerlifting Organization, the American Drug-Free Powerlifting Federation, the United States of America Powerlifting, and the Olympic Games, have adopted drug testing protocols, with a primary focus on urine. Urinalysis is a recommended testing method due to its non-invasive nature and ability to detect steroid usage within days to weeks of substance ingestion, while the exact duration varies depending on the substance. Changes to the collection technique or utilizing someone else's urine were made to the test. These aspects underline the importance of continual developments in drug testing procedures in order to retain effectiveness and close potential gaps. Despite its benefits, urinalysis has several drawbacks. One difficulty is distinguishing between chronic and acute substance use, which makes determining the length of usage difficult. Furthermore, because urinalysis is a generally accepted testing tool, individuals may try to devise novel ways to pass**.**

Hair Testing: Although most research has focused on illegal drugs such as cannabis and cocaine, hair testing has gained popularity as a technique for diagnosing substance addiction among athletes. Despite the scarcity of anabolic steroid studies, hair testing has several advantages, including a large detection window of roughly 90 days (depending on hair length), high sensitivity, non-intrusive collection, and resistance to manipulation by using someone else's hair. A substantial sample of hair is required to conduct a hair test, with an average hair growth rate of 0.6 to 1.4 cm each month. A 3.9 cm (1.5 inch) sample from the scalp can reveal a three-

[23] Ashutosh Yadav, 'Analysis Of The National Anti-Doping Bill, 2021' (*Jus Corpus Law Journal*, 27 May 2022) <https://www.juscorpus.com/analysis-of-the-national-anti-doping-bill-2021#_ftn9> accessed 21 November 2023

month medication history. Other sources of body hair, such as chest, underarm, and leg hair, may be acceptable but may provide different effects.

When chemicals are taken, they are absorbed into the bloodstream and are detected. Because a blood vessel nourishes each hair follicle, trace amounts of chemicals are kept until the hair grows out, is cut, or falls out. While courts accept this procedure for substance misuse testing, its application as a stand-alone test for anabolic steroids is fraught with difficulties, including worries about external pollutants and the impact of cosmetic treatments or hair dye (Kintz, 2006). Nonetheless, following an initial failure, it might be used as a secondary or confirmatory test.

Blood Test: Despite being more invasive, blood testing is a complete alternative for detecting numerous drugs, including steroids. An initial blood test can detect steroid use by assessing clinical data such as elevated glucose levels, decreased HDL levels, increased LDL levels, and perhaps abnormal liver function tests, all of which indicate chronic use (Kao, 2004). While blood tests are not as effective as urine tests in detecting exogenous steroids, they do provide valuable information about the health hazards associated with steroid usage, such as liver damage, kidney troubles, glucose intolerance, blood disorders, and thyroid abnormalities.

Sweat and Saliva: Sweat and saliva are growing topics in anti-doping testing, with continual advancements in collection and detection systems. Sweat can be collected and tested simply, although saliva testing has potential due to its non-invasiveness and convenience of collection. Although urine is often regarded as the gold standard for drug testing, alternate matrix oral fluid (OF) solves some of its shortcomings. OF is simple to collect, non-invasive, sex-neutral, and allows for observation during specimen collection. However, difficulties such as dry mouth, difficulty distinguishing between endogenous and external production, and limitations in detecting particular compounds occur.

Saliva is a complex fluid produced by salivary and buccal glands that contains a variety of components such as gingival crevicular fluid, plasma exudates, blood from oral lesions, and hormones (Lewis, 2006). While saliva testing shows promise, challenges like dry mouth and

difficulty detecting synthetic steroids within their respective detection windows need further consideration.[24]

FAMOUS CASES AND SCANDALS

1967: Cyclist Tom Simpson's Death: British cyclist Tom Simpson died during the Tour de France on July 13, 1967, due to a heart attack caused by dehydration while climbing Mont Ventoux. Amphetamines were found in his jersey, leading to suspicions. His death resulted in an International Cycling Union ban on performance-enhancing drugs.[25]

1970s-'80s: East German Government Doping: In the 1970s and '80s, the East German government forced athletes to use steroids to showcase communist superiority. Athletes faced health issues, and suspicions arose during the 1976 Olympics when the women's swim team won 11 gold medals. Around 9,000 athletes were affected, with long-term health problems.[26]

1988: Ben Johnson's Positive Test: Canadian sprinter Ben Johnson tested positive for the steroid stanozolol after winning the 100m gold at the 1988 Seoul Olympics. His case shed light on doping in athletics and resulted in his disqualification, handing the gold to Carl Lewis.[27]

1994: Diego Maradona's Ephedrine Use: Argentinian soccer player Diego Maradona tested positive for ephedrine at the 1994 World Cup. Despite weight loss efforts and on-field performance, he was ex Nicholson pelled from the competition, marking a setback in his career.[28]

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[24] Hannah McCuddin, 'Detection methods of androgenic-anabolic steroids in sports' (*Iowa State University*, 2021) <https://dr.lib.iastate.edu/server/api/core/bitstreams/8b833c6d-2a49-4604-9d72-2c38de11e264/content> accessed 16 November 2023

[25] Nicholson (n 2)

[26] Domhnall MacAuley, 'Doping in sport—a warning from history' (2007) 335 National Library of Medicine <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1988980/> accessed 17 November 2023

[27] Mike Rowbottom, 'Mike Rowbottom: How Johnson's 1988 drug bust tested Seoul's sports writers writers testing positive for cigarettes and alcohol' (*InsideTheGames*, 27 September 2021) <https://www.insidethegames.biz/articles/1113483/ben-johnson-seoul-olympics-1988-doping> accessed 17 November 2023

[28] 'World Cup USA '94 : Report: Maradona Test positive : Group D: News services identify Argentine star as culprit and say banned drug he used was ephedrine, a common nasal decongestant' (*Los Angeles Times*, 30 June 1994) <https://www.latimes.com/archives/la-xpm-1994-06-30-sp-10386-story.html> accessed 17 November 2023

1998: Festina Cycling Team Scandal: The Festina cycling team's masseur was caught transporting amphetamines, erythropoietin, and steroids during the 1998 Tour de France, leading to police investigations. The team was expelled, and the scandal influenced the creation of the World Anti-Doping Agency in 1999.[29]

2003: BALCO Scandal: The BALCO scandal revealed the designer steroid tetrahydrogestrinone (THG) in 2003, with athletes like Marion Jones and Barry Bonds implicated. The undetectable THG prompted promises of tougher penalties in sports, and Jones later admitted to using steroids.[30]

2012: Lance Armstrong's Stripped Titles: American cyclist Lance Armstrong, a cancer survivor, won seven Tour de France titles from 1999 to 2005. In 2012, he was charged with using performance-enhancing drugs, leading to the loss of his titles and a cycling ban. Armstrong later confessed to doping in 2013.[31]

2013: Biogenesis Scandal: Biogenesis, a Florida clinic, supplied MLB players with human growth hormone and other drugs in 2013. More than a dozen players, including Alex Rodriguez, faced suspensions. Rodriguez initially denied it but later admitted to doping, prompting MLB to promise stricter penalties.[32]

2021-2022: Russia's Olympic Ban: In 2016, revelations of state-sponsored doping in Russia during the 2014 Sochi Olympics emerged. The World Anti-Doping Agency imposed a four-year ban in 2019, later reduced to two years, preventing Russian athletes from competing under their flag or anthem in the 2021 and 2022 Olympics.[33]

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[29] Nicholson (n 2)
[30] 'Balco Fast Facts' (*CNN Editorial*, 29 April 2022) <https://edition.cnn.com/2013/10/31/us/balco-fast-facts/index.html> accessed: 10 December 2023
[31] 'Lance Armstrong' (*Encyclopædia Britannica*, 17 November 2023) <https://www.britannica.com/biography/Lance-Armstrong> accessed 10 December 2023
[32] Steve Busfield, 'Biogenesis owner says he injected peds into Alex Rodriguez' (*The Guardian*, 13 January 2014) <https://www.theguardian.com/sport/2014/jan/12/biogenesis-owner-says-he-injected-peds-into-alex-rodriguez> accessed 10 December 2023
[33] Sara Kettler, '9 Doping Scandals That Changed Sports' (*History*, 26 May 2021) <https://www.history.com/news/doping-scandals-through-history-list> accessed 17 November 2023

The chronology of doping incidents in sports, from the sad death of Tom Simpson in 1967 to Russia's Olympic suspension in 2021–2022, together presents a disconcerting picture of enduring difficulties in the sports world. These occurrences highlight a widespread problem that cuts across many sports and historical periods, indicating the necessity for significant and systemic reforms. The fact that these incidents keep happening exposes the weaknesses in the present anti-doping policies and the ways in which athletes and organizations may get away with abusing them.

Decades of tragedies, disputes, and suspensions show that efforts to preserve sports' integrity are still being made. It is clear that the appeal of performance-enhancing drugs continues to jeopardize athlete welfare, fair competition, and the legitimacy of athletic organizations. Change is necessary not only for some but for all. However, this episode highlights a greater plea for a global commitment to robust anti-doping policies. As these doping revelations spread across sports and nations, the need for a focused and cohesive effort to eliminate doping becomes clearer. Stricter fines, enhanced testing standards, and an international collaborative posture are all necessary components of any viable solution. The goal is to establish an atmosphere in which athletes may compete on a level playing field, free from the shadows of substance addiction, guaranteeing that sports remain pure and true for future generations.

IMPACT ON HEALTH

When you introduce hormones into your system, such as testosterone through steroids, there's a domino effect on your body's natural production, as explained by Brad Anawalt, an endocrinologist and professor at the University of Washington School of Medicine. The impact of steroids is particularly evident in the reproductive system, where disruptions begin in the brain. The surge of new hormones signals the hypothalamus and pituitary gland, leading to a shutdown of testosterone production in the testicles. This process results in a rapid decline in sperm production and a noticeable shrinkage of the testicles.

The consequences of steroid use extend beyond the physical realm, delving into the intricate workings of the brain. Steroid abuse has been linked to a range of mental health issues, including

aggression, violence, major mood disorders, insomnia, depression, and, in extreme cases, psychosis and suicide. The complexity of these psychological reactions remains a mystery, with researchers trying to understand why some individuals experience extreme effects while others do not. Aggression, often simplified as 'roid rage,' is just the tip of the iceberg when it comes to the impact of steroids on the brain. The interplay between the amygdala, responsible for emotions and impulsivity, and the prefrontal cortex, where decisions are made, may contribute to the tendency toward aggression. Insights from users like Mike Israetel, an amateur bodybuilder and co-founder of a training and nutrition company, shed light on the psychological rollercoaster induced by steroids. He describes a heightened emotional state, where minor incidents trigger intense reactions that require continuous self-restraint throughout the day. The psychological effects, however, tend to dissipate once the drug use is halted. Yet, around 30% of users develop a dependence on steroids, influenced by both psychological and biological factors. Muscle dysmorphia, known as 'bigorexia,' plays a role, causing individuals to perceive themselves as too small, fostering a fear of losing muscle mass. The pressure to conform to societal ideals of a perfect physique, particularly among young men, drives many into bodybuilding, amplifying the risk of steroid dependence. The biological pathways to steroid dependence are multifaceted. Withdrawal symptoms, including muscle loss, fatigue, depression, and sexual dysfunction, create a strong temptation to resume drug use. Additionally, a more immediate biological hook has been observed, possibly related to the reward centre in the brain that induces feelings of euphoria and invincibility.

The bodybuilding lifestyle itself is demanding on organs, prompting bodybuilders to supplement their diets with various vitamins and compounds to support organ health. However, the combination of a high-protein diet, dehydration, and the use of steroids and other drugs can strain organs like the kidneys and liver, potentially causing long-term damage. The risks extend to the cardiovascular system, with some bodybuilders experiencing irregular heart rhythms and increased susceptibility to strokes.

In the pursuit of the perfect physique, the toll of steroid use goes beyond muscle growth, reaching into the delicate balance of mental and physical well-being. Understanding these

complexities is crucial for both athletes and the medical community as they navigate the intricate web of risks associated with performance-enhancing substances.[34]

ALTERNATIVE PATHS TO FITNESS

We have to come out of this unnatural trend of aesthetics and enhanced body standards portrayed in social media and focus on alternative approaches to fitness which will not only benefit an individual physically but also mentally in the long run. Beyond regular gym routines, exploring alternate paths to fitness offers variety and excitement to your routine. Hiking or riding outside integrates physical activity with nature, generating a relaxing and intellectually revitalizing experience. Dance lessons, such as salsa or hip-hop, not only provide a workout but also an opportunity to learn new skills in a fun, social setting. Martial arts such as karate and Brazilian jiu-jitsu provide physical challenges as well as mental focus and self-defense abilities. Group exercise programs, rock climbing, water sports, and activities such as yoga and Pilates appeal to a wide range of inclinations, ensuring that fitness remains dynamic and personally gratifying. Participation in recreational sports leagues, virtual reality exercise programs, and unconventional options like gardening all contribute to a holistic approach to remaining active.[35]

It is important for us to understand that fitness is not a social media stunt or a crash course that can be achieved in a few months, it is a lifestyle and we have to inculcate and follow it every single day of our lives if we want to be healthy. It can start with a simple walk or choosing stairs instead of lifts or using bicycles instead of motor cycles. Human beings have evolved for ages and our bodies are used to and need physical activities to be healthy and work efficiently. Times have changed and it has become very easy and handy to get things, especially after digitalization but we have to consciously indulge in physical activities in order to get the best out of our body and mind. Understandably, some people hate exercising and working out therefore for such people exercising can be made fun by fun activities like hiking, rock climbing, Cleaning, etc. By

[34] Berkowitz (n 8)
[35] Arushi Bidhuri, 'Hate the Gym? 7 Alternate Ways to Get Started on Your Fitness Journey' (*Healthshots*, 06 February 2023) <https://www.healthshots.com/how-to/7-alternate-ways-to-stay-fit-without-gym/> accessed 16 November 2023

this approach, an individual will not only stay healthy and live long but also develop new skills and contribute to society.[36]

For all of this to happen we must strike down the trend of steroid abuse, shredded physique and false pictures of masculinity and promote natural ways of exercising and staying active.[37]

ANTI-DOPING ORGANIZATIONS

World Anti-Doping Agency (WADA): In response to the doping controversies that marred the 1998 Tour de France, the International Olympic Committee (IOC) orchestrated a pivotal world conference against doping in Lausanne in February 1999. Building on its earlier role in anti-doping efforts dating back to 1968, the IOC took decisive action by establishing a medical commission tasked with drafting doping lists. This conference marked a turning point, reaffirming a historical commitment and injecting renewed vigour into the fight against doping on a global scale.

National Anti-Doping Organisations (NADOs): In Norway, discussions about alternative organizational forms in the fight against doping gained traction following an international assessment of obligations outlined by the Council of Europe's Convention. Concerns arose regarding the dual roles of prosecution and appeal residing within the Norwegian Athletics Association (NIF), prompting reservations about the viability of maintaining an impenetrable barrier within a single organization. This led to deliberations on creating an appeal body external to the NIF, emphasizing the need for independent entities to bolster the integrity of anti-doping measures at the national level.

National Anti-Doping Organizations (NADOs) play a crucial role in the global battle against doping, primarily funded by governments and entrusted with diverse responsibilities to ensure the integrity of sports. Positioned as guarantors of doping-free competition for both the public and governmental bodies, NADOs are perceived as impartial entities in contrast to the

[36] Steve Kamb, '40 Fun Ways to Exercise (without Realizing It) Nerd Fitness' (*Nerd Fitness*, 18 October 2023) <https://www.nerdfitness.com/blog/25-ways-to-exercise-without-realizing-it/> accessed 16 November 2023
[37] Bidhuri (n 35)

scepticism often directed at national and international sports federations. The suspicion of favouritism toward their own athletes lingers around these federations. Consequently, the significance of independent NADOs is poised to grow, underlining their pivotal role in upholding the ideals of fair play and integrity in sports worldwide.[38]

In India, the landscape of anti-doping efforts involves the prominent presence of the National Anti-Doping Agency (NADA). This agency takes the lead in orchestrating initiatives against doping in sports. Alongside NADA, various sports federations and organizations actively contribute to upholding anti-doping regulations within their specific domains. Collaborating with NADA, these entities engage in comprehensive efforts, ranging from implementing anti-doping measures to fostering awareness programs and championing the ethos of fair play in sports. While NADA serves as the central authority, the partnership with sports federations ensures a nuanced and sport-specific approach to anti-doping endeavours.

LEGAL REFORMS: DRAFTING A SAFER FUTURE FOR YOUTH ATHLETES

Anabolic steroids are classified as prescription medications in India, and their sale without a valid prescription is illegal. The Drugs and Cosmetics Act of 1940 and the Drugs and Cosmetics Rules of 1945 govern drug manufacturing, sale, and distribution in India. It is illegal to take steroids for bodybuilding or sports enhancement without a prescription from a qualified medical practitioner.[39] However, people are openly using steroids in various competitions and even teenagers have started steroid abuse in order to look good on social media or take inspiration from film actors and celebrities to match their so-called perception of a 'hero' set by society. It is high time to bring reforms in the legal system and introduce stricter laws and punishments to curb drug abuse.

[38] Matthias kamber, 'Development of the Role of National Anti-Doping Organisations in the Fight against Doping: From Past to Future' (2011) 213 Forensic Science International <https://www.sciencedirect.com/science/article/abs/pii/S0379073811003586> accessed 16 November 2023

[39] The Drugs and Cosmetics Rules 1945

ATHLETE PERSPECTIVES

It becomes very important for us to understand the athlete's perspective if we want to put an end to the current crisis of steroid abuse going on in our country. The allure of performance-enhancing drugs (PEDs) in the world of sports presents athletes with a complex decision-making process. The potential benefits, both in terms of enhanced performance and lucrative contracts, can be enticing, as acknowledged by former athletes like Jose Canseco. The risk, however, involves the possibility of getting caught and facing consequences such as suspensions or bans. Athletes engaged in this calculated risk assessment must weigh the short-term gains against the long-term repercussions. The prevalence of positive drug tests in major sports leagues has increased over the past decade, shedding light on the nuanced relationship between athletes and PEDs. Understanding this dynamic requires acknowledging the grey area that exists, where athletes navigate the fine line between seeking a competitive edge and avoiding the pitfalls of detection in a landscape where policies and testing methods vary across sports. The question then shifts from why so many athletes get caught using PEDs to a more intriguing inquiry – why so few?

Athlete's views on steroid use require negotiating a complicated terrain driven by competitive pressures, financial incentives, and the ever-changing nature of anti-doping legislation. The urge to reach peak physical performance, acquire a competitive advantage, and earn lucrative contracts makes performance-enhancing chemicals an enticing prospect for sportsmen considering using them. The demands to achieve in highly competitive situations, along with the possible benefits of success, add to the attractiveness of these drugs. PEDs may be viewed by athletes as a method of bridging the gap between their existing talents and the heightened performance required by their sport.

The perceived efficacy of anti-doping procedures influences athlete usage of steroids, generating a multifaceted picture owing to differences in testing frequency, detection techniques, and sanctions between sports leagues. Positive drug tests in recent years have highlighted difficulties for anti-doping agencies, since athletes may perceive leniency or loopholes. Athletes may justify PED usage in reaction to the physical demands of their sport and the pressure to achieve peak

performance. The grey area, particularly with medications such as Adderall, affects decision-making since athletes see them as tools for improving attention and physical qualities. To address these issues, a complete approach is required, combining strict anti-doping measures with athlete education, mental health care, and a dedication to fair competition, while acknowledging the complex interaction between ambition, pressure, and the environment.[40]

COMMUNITY AWARENESS

The appeal of synthetic drugs called steroids, which are connected to male sex hormones, has blurred the boundaries between medical usage and misuse in the context of body augmentation and sports performance. These drugs are only permitted to be obtained with a prescription, but people—especially athletes—who want to test the limits of their physical ability and attractiveness frequently take advantage of them. Steroids were first created to treat medical issues including impotence, delayed puberty, and body wasting caused by AIDS. However, they have gained illegal attention in the performance enhancement industry. Abusers frequently experiment with self-prescription and misuse because they are motivated by a desire for improved physical appearance and increased athletic performance. Complex tactics like stacking—combining multiple drug forms—and pyramiding—a cyclical pattern of administration lasting six to twelve weeks—characterize the culture of steroid addiction. Although abusers tend to believe that these tactics maximize benefits while limiting potential harm, there is glaringly little empirical data to support these statements. The exploration of the intricate realm of steroid abuse reveals that the fine boundary between medical necessity and unapproved augmentation has spawned a subculture focused on achieving physical perfection, frequently at the cost of one's health.

It is unlawful to distribute or use steroids without a legitimate prescription. According to the Controlled Substances Act, steroids are classified as Schedule III drugs. Drugs listed as Schedule

[40] 'Exploring Topics in Sports: Why Do Athletes Risk Using Performance Enhancing Drugs?' (*Northwestern University,* 14 July 2009) <https://sps.northwestern.edu/stories/news-stories/why-do-athletes-risk-using-PEDs> accessed 17 November 2023

III, which serve a valid medical purpose, might cause significant psychological dependence or moderate to low physical dependence.

FUTURE OUTLOOK

It is time to make a permanent change and begin defining steroid-free fitness future, trends and ideals. A trend toward natural, sustained muscular growth, stressing the beauty and health advantages of meeting fitness objectives without the use of performance-enhancing drugs. A greater emphasis should be placed on teaching fitness enthusiasts about the hazards and effects of steroid usage, to create a culture that prioritizes long-term health above short-term benefits. We have to foster and promote advocacy efforts and groups committed to raising awareness about the hazards of steroids and encouraging clean and ethical fitness methods. Stricter drug testing standards should be used in sports and fitness events to provide a fair playing field and prevent the use of performance-enhancing chemicals. We must support and encourage natural bodybuilding competitions and events highlighting and appreciating the accomplishments of athletes who achieve remarkable physiques through natural means.

Creation of supporting and celebrating online and offline groups for people who chose a steroid-free fitness journey, building friendships and shared ideals. Transparency is becoming increasingly important among fitness influencers, with audiences preferring individuals who openly promote natural, drug-free lives and realistic fitness objectives. Stricter laws and punishments for the unlawful distribution and sale of steroids, as well as legal inhibitors to discourage their usage.

We have to Increase investment in natural supplement research and development, as well as training approaches that mirror the good benefits of steroids without the accompanying health hazards. The growth of fitness firms and groups that advocate for ethical, steroid-free procedures, provide consumers with honest information about their goods and promote a dedication to health and well-being over shortcuts.

WAY FORWARD

The history of doping scandals is a sobering reminder of the persistent problems that performance-enhancing drugs present in the complex fabric of sports and fitness. The ethics of athletic endeavours are called into question by the persistent shadow of doping, which dates back to the tragic death of cyclist Tom Simpson in 1967 and the current Olympic ban for Russia in 2021–2022. While there are safe ergogenic aids available, a closer look uncovers the existence of dangerous and illegal chemicals that not only provide athletes with an unfair edge but also seriously jeopardize their health and well-being. The fact that drugs like human growth hormone, DHEA, ephedrine, blood doping agents, anabolic steroids, and diuretics are prohibited shows how well-acknowledged the risks they may pose. The field of science, Sports organizations and regulatory agencies have repeatedly drawn attention to the detrimental consequences on people, which can range from potentially fatal side effects to permanent impairment of important organs.

Governments urgently need to implement and enforce tighter rules in light of the startling frequency of doping incidents and their pernicious impact on youngsters and the general public. The urgent need for action is a strong wake-up call to preserve our communities' health and future, not only to preserve the sacredness of sports. Enacting laws to restrict access to and use of these dangerous chemicals is essential, especially for young people who can be seduced by the promise of quick physical changes. Governments everywhere have a grave obligation to protect their people from the temptation of shortcuts that jeopardize not just the spirit of fair competition but, more importantly, personal health. Enforcing strict regulations against the use, ownership, and distribution of dangerous ergogenic aids is essential to maintaining the spirit of sportsmanship and cultivating a society that puts the public's long-term welfare ahead of short-lived sporting success.

We humbly request that nations respond to this urgent call to action. Now is the moment to strengthen the legal system, discourage prospective wrongdoers, and make it clear that using dangerous performance-enhancing drugs will not be accepted. By doing this, we may work to build a future in which fitness and sports are values based on honesty, equity, and, most

importantly, a steadfast dedication to the well-being of our local communities. Let us collectively banish doping from the realm of bodybuilding and work on creating an era where the pursuit of physical excellence is synonymous with both honour and health.

CONCLUSION

A history of doping scandals has damaged the fabric of sport and fitness. The establishment of the World Anti-Doping Agency (WADA) and the National Anti-Doping Agency (NADA) in India was an eventful step towards combating this problem. However, the problem still exists, and doping has been a problem in the sports world for many years and continues to be a major problem today. The use of dangerous and illegal chemicals gives athletes an unfair advantage as well as seriously jeopardises their health and well-being.

Given the alarming frequency of doping incidents and their harmful impact on young people and the public, governments urgently need to introduce and enforce stricter rules. Enacting laws that restrict access to and use of these dangerous chemicals is critical, especially for young people who are easily baited by the promise of rapid body changes. Governments everywhere have a heavy duty to protect their citizens not only in the spirit of fair competition but also, more importantly, from the temptation to take shortcuts that endanger personal health.

Enhancing strict regulations on the use, possession, and distribution of dangerous ergogenic equipment preserves the spirit of sportsmanship and develops a society that values long-term public welfare over short-lived sporting achievements. We humbly call on countries to note this urgent call to action. Now is the time to strengthen our legal system, discourage potential criminals, and make it clear that the use of dangerous performance-enhancing drugs is unacceptable. In this way, we can work to build a future where fitness and sport are values based on integrity, justice and, above all, an unwavering commitment to the well-being of our communities.