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# **Introduction**

According to available material from the World Anti-Doping Agency WADA, the number of suspect findings has increased from 3,528 in 2013 to 4,596 findings in 2017. No data is available for 2018. Thus, in just 4 years, this number has increased by 1068 findings globally. In the European Union countries, the number of positive doping findings for 2016 is at 592, unfortunately data for 2017 is not available. These figures include only registered athletes, not unregistered amateur athletes and athletes who do not fall under the International Olympic Committee. In these cases, doping abuse is expected to be higher. Another significant problem is the abuse of drugs for mental stimulation during stressful situations such as school exams or personal situations. In a personal anonymous survey in the largest fitness centre in Pilsen, more than 60% of the respondents had experience of abusing banned substances. And more than 80% have considered or considering using these substances. Two-thirds of those surveyed were under the age of 23. The aim of this project is to educate young people on this issue, to inform them about the risks and side effects of doping abuse, such as such as anabolic steroids, hormones and to inform about the risks of drug use, abuse of over-the-counter drugs, to provide information on how to how to get to know the drug addict in your neighbourhood and provide help where appropriate, how to assist in their rehabilitation and information on healthy living lifestyle. The project will contribute to the democratic participation of youth and support youth in actively promoting democratic values, tolerance, democratic decision-making, actively speaking out against racism, discrimination, xenophobia, bullying and actively promote expressions of respect towards minorities. Another objective of this project is to educate coaches/educators/youth workers on how to inform adolescents about this issues and how to prevent the subsequent use of dangerous substances.

The project will also involve 2000 participants in online educational activities and 300 participants in face-to-face educational activities. They will be selected from among youth according to their involvement in sport and their level of risk of drug abuse and over-the-counter drugs. Within five years of The project will provide educational activities for a minimum of 300 members of the project target group in all partner countries. 3 LTTAs will be held focusing on the project objectives described above and 3 TMs. The objectives of the project will be achieved through the implementation of the activities described Youth sport and health professionals, professional athletes, persons with negative doping experiences and fitness practitioners from youth with appropriate implementation of the sub-activities into the LTTA and TM. This will be primarily a structured set of free educational online materials containing educational articles, a methodological guide for coaches/trainers/youth workers, recommendations for European non-profit organisations active in the field of sport to raise awareness among the target group for self-initiative against the abuse of drugs and illicit substances by adolescents and to gain knowledge about healthy lifestyles. The project will have a positive impact on LTTA participants in the form of new knowledge and skills of participants on the issue of drug abuse, doping and other dangerous substances in sport or personal life, skills to help such addicted youth, knowledge to integrate disadvantaged youth into sport and about healthy lifestyle. Participants will develop their English communication skills, their interpersonal communication, and define





themselves against prejudice, racism and xenophobia, use the European Youthpass and Europass Language Passport tools. The project will have an impact on TM participants by developing their IT, professional/scientific, dissemination, organisational skills. The project will have an impact on partner organisations by increasing their involvement in international networks of NGOs, developing the professional knowledge and skills of their collaborators and the development of their project management skills. Europe for you, z.s. will develop a sustainability plan for the key outputs of the project. They will remain online free of charge for at least 5 years after the end of the project. available for free. The project will be useful in the long term by opening free online training in the field of prevention and combating drug abuse and dangerous for European youth, making education on doping and drug abuse issues accessible also to disadvantaged youth by the publication of a ethodological guide in English, improving the quality and involvement of young people in sporting activities by developing.





# What are PEDs

PED - performance enhencing drugs or otherwise doping.

Doping in sport refers to the use of substances and methods listed on the List of Prohibited Substances and Methods issued annually by the World Anti-Doping Agency (WADA). The intended effect of doping is mainly to immediately enhance performance or speed up recovery during training. State-sponsored and organised doping is particularly dangerous.

Performance-enhancing substances have been around since ancient times (e.g. gladiators used a mixture of honey and alcohol). It has been intensively monitored in top sporting competitions since the last quarter of the 20th century and is regularly the cause of many scandals. The former American cyclist Lance Armstrong admitted to doping from the age of 21.1 Notorious doping by athletes in East Germany (GDR) during the Cold War. The reason the GDR doped its athletes was to represent the socialist state as superior. At the last Cold War-era Summer Olympics, in Seoul 1988, the GDR won 102 medals, putting it second only to the Soviet Union in the country rankings. By comparison, West Germany, almost four times larger, was fifth in the medal count with forty medals.2 In just two decades, the GDR won 519 Olympic medals, 192 of them gold. However, hundreds of lives were ruined as the GDR was a giant not only in sport but also in doping. Extensive state-sponsored doping of athletes also existed in West Germany and China. Between 1988 and 2000, the United States Olympic Committee tried to cover up the doping of hundreds of American athletes, including Carl Lewis and Joe DeLoache. Since 2014, Russia and its anti-doping agency RUSADA have been the subject of investigations and punishments in particular. On 9 December 2019, the Executive Committee of the World Anti-Doping Agency (WADA) ruled and announced that Russia had been banned from the Olympics and World Championships for four years due to doping, and also that it had re-suspended RUSADA

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The use of substances belonging to prohibited groups:

- stimulants
- narcotics
- anabolic steroids
- substances with anti-estrogenic activity
- diuretics
- peptides and glycoprotein hormones

Use of other doping methods:

- blood doping
- pharmacological, chemical and physical manipulations



Substances and groups of substances subject to certain restrictions are also defined (alcohol, cannabinoids, local anaesthetics, corticosteroids and beta-blockers).

### Stimulants

are psychoactive substances that cause a temporary improvement in mental or physical function, or both. The effects of these substances include, among others, increased alertness, vigilance and mobility. Stimulants have a wide range of different effects caused by increased activity of the central and peripheral nervous system. Typical effects, which may vary depending on the specific substance, include increased alertness, awareness, vigilance, stamina, productivity and motivation, increased arousal, mobility, heart rate and blood pressure, and reduced need for food and sleep. Many stimulants can also improve mood and eliminate anxiety, or even induce feelings of euphoria. It should be noted, however, that many of these substances can, on the contrary, induce anxiety, even if they paradoxically reduce it at the same time.

The effects of stimulants are exerted through various pharmacological mechanisms, the most important of which include the promotion of norepinephrine (noradrenaline) and/or dopamine aktivity

- Amphetamines
- Nicotine
- MDMA
- Cocaine
- Modafinil
- Yohimbine
- Caffeine











### Narcotics

is an older collective term for psychoactive substances that depress or block the nervous system, especially the perception of pain. They were divided into anaesthetics or analgesics (pain-relieving), hypnotics and sedatives (soporifics and tranquilizers).

- Opium
- Heroin
- Codeine
- Oxycodone
- Hydrocodone
- Morphine
- Hydromorphone
- Carfentanil







## Anabolic steroids

are the body's natural steroids, signaling and building substances for anabolism, promoting protein production and generally necessary for muscle and bone cell growth. Synthetic androgenic anabolic steroids (AAS) are derivatives of a substance similar to the male hormone testosterone, produced industrially.

Steroids are often abused by athletes from almost every sport to enlarge and strengthen muscles and increase athletic performance. Most steroid users are not athletes. In the U.S., 1-3 million people (1% of the population) use AAS. AAS users tend to be middle-class heterosexual men with a median age of 25 years who are non-competitive bodybuilders and non-athletes and use the drugs for cosmetic purposes. Among 12- to 17-year-old boys, the use of steroids and similar drugs increased by 25% from 1999 to 2000, with 20% percent saying they use them for appearance rather than athletic use. AAS users tend to research the drugs they take more than other controlled substance users; however, the main sources consulted by steroid users include friends, non-medical guides, internet forums, blogs, and fitness magazines, which may provide questionable or inaccurate information.

- Testosterone (various esters)
- Trenbolone
- Nandrolone
- Stanazolol
- Turinabol
- Dianabol









#### Substances with anti-estrogenic aktivity

estrogen blockers are a group of drugs that reduce either the production and/or effects of estrogen in your body. They are used to counteract the negative effect of anabolic steroid use. Alternatively, to more quickly support the comparison of the hormonal profile after discontinuation of anabolics.

- Clomiphene
- Anastrazole
- Exemestane
- Tamoxifene
- HCG







### **Diuretics**

is a drug or herbal medicine that induces increased diuresis (excretion) of water and electrolytes in the urine. In addition to inducing diuresis, other mechanisms are involved in the resulting effect, e.g. the vasodilator component.

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Diuretics are sometimes abused by those who want to reduce their body weight by removing water from the body. This phenomenon has been observed in people with eating disorders, anorexics and bulimics. Sometimes they are also used by athletes who need to get into their weight category before a race - however, sports rules prohibit the use of diuretics. All are at risk of dangerous dehydration.

- Spironolactone
- Bumetanide
- Torsemide
- Hydrochlorothiazide
- Urosemide
- Metolazone







## Peptides

is a chemical compound of organic origin that is formed by joining several amino acids by a peptide bond. All peptides, except cyclic peptides, have an N-terminus (amine group) and a C-terminus (carboxyl group) at the end of the chain. The term peptide was first used in 1902 by Emil Fischer in an investigation of the degradation of proteins by pepsin.

According to the number of peptide bonds, peptides are divided into oligopeptides (dipeptides, tripeptides, tetrapeptides, and others), polypeptides, and proteins (proteins). Proteins consist of one or more polypeptides arranged in a biologically functional manner. Peptides are classified, together with nucleic acids, oligosaccharides, polysaccharides and other compounds, as biological oligomers and polymers.

Peptides, especially proteins, are synthesized by the organism as inactive precursors, which are then chemically converted to the active form at the site of action. Some peptides that are produced by biosynthesis in living organisms undergo post-translational modifications, in which some part of the peptide is always altered. These modifications give the molecule new properties, usually biological activity.

- Insuline
- Growth hormone •
- IGF-1 •
- GHRP-2 •
- GHRP-6
- Ipamorelin •
- Hexarelin













## **Blood doping**

Blood doping is the administration of blood or blood components, whether one's own or someone else's, for purposes other than medical treatment. Blood doping is an extremely difficult to detect form of performance enhancement. It was first tried in 1972 and officially banned in 1985. However, new methods are much more subtle and, above all, harder to detect.

Blood doping can increase performance where oxygen consumption increases especially in demanding endurance sports such as cross-country skiing, triathlon, swimming, cycling, endurance running, etc. This is because more red blood cells in the blood can carry more oxygen from the lungs to the working muscles. This makes the exchange of respiratory gases more efficient. The more oxygen the working muscle is given, the more efficiently it works. According to clinical studies, the depletion time of erythropoietin (EPO), a hormone that promotes red blood cell production, is extended by as much as 17% when it is taken.



Source of pictures: <u>www.banyantreatmentcenter.com</u> <u>www.dnaindia.com</u> <u>www.nbcnews.com</u> <u>www.medicalnewstoday.com</u> <u>www.ekinos.com.ar</u> <u>www.bio-peptide.com</u> <u>www.cyclingmagazine.ca</u>









# ABUSE OF PED

The consumption and abuse of these substances causes reactions that we know as side effects of anabolic steroids. As explained in several reports, it has been associated with a wide variety of adverse side effects ranging from acne and breast development in men, to heart attacks and liver cancer. Most of these effects are reversible if you stop taking these drugs, but some side effects are permanent, such as a higher voice in women.

### **Early Side Effects of Anabolic Steroids**

The development of acne, which affects up to 50% of users, is the most frequent side effect of steroid-androgenics. Androgenic steroids produce hypertrophy and increased secretion of the sebaceous glands, facilitating the growth of the bacteria that ultimately causes acne.

The lesions vary from the appearance or exacerbation of seborrheic dermatitis (causing reddish, irritated, scaly and dandruff skin), to its development in more serious types of acne that can cause permanent skin lesions.

Laboratory abnormalities are another common effect of androgenic steroid use. Elevations of transaminases and bilirubin are frequent, as well as alterations in the lipid profile (increased total cholesterol, triglycerides and low-density lipoproteins-LDL).

In most cases, the alterations normalize at the end of the cycle, although they may imply a higher cardiovascular risk, especially in people with other risk factors.

Possible cardiovascular disorders include hypertension, cardiomyopathy, left ventricular hypertrophy, myocardial ischemia, blood coagulation problems, and arrhythmias. Although some of these problems, such as hypertension, dyslipidemia, and coagulation disorders, resolve with discontinuation of use, arteriosclerosis and cardiomyopathy are irreversible.

#### **Risk in Side Effects of Steroids**



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Heavier usage patterns are much more exposed to these types of risks than occasional low-dose users. Cases of prostate problems have been reported in regular users.

Another serious side effect associated with the abuse of these substances is neuroendocrine disturbances. At the end of a cycle and the administration of androgenic steroids is stopped, it may take several weeks for testicular function to recover, depending on the intensity and duration of the cycle, as well as the individual's susceptibility to this effect. As a consequence, infertility, depression, impotence and other mood disorders may appear, which may lead the user to continue consuming these substances to counteract the effects.

#### Most common side effects of steroids

The most common side effects associated with anabolics are changes in libido and mood, decreased testicular volume, increased breast size in men, headache, erection difficulty in men, sleep disorders and retention of liquids.

This abuse is also related to a series of psychiatric effects, including dependence syndromes, mood alterations, and progression to other forms of substance abuse.

# How does the consumption of steroids affect the hormonal system?

By abusing the consumption of steroids, the hormonal production in our body undergoes reversible and irreversible changes.

The reversible ones being the following:

- Lower sperm production
- Shrinking of the testicles (known as testicular atrophy).

And the irreversible ones:

- Baldness





- Breast development in men.

This breast development is known as gynecomastia. In studies conducted in the USA especially, the majority of bodybuilders suffered from testicular atrophy and/or gynecomastia.

As for women, the side effects of anabolic steroids are relatively different. The consumption of anabolic steroids produces a hormonal change that has been characterized as "masculinization". This is because the breasts and body fat decrease considerably. The skin is also affected as it becomes rough. Even the clitoris gets bigger. And as for the voice, as we said, it becomes more serious. Another type of side effect of steroids in women is excessive growth of body hair while losing hair.

Therefore the side effects of steroids in women are:

- Breast reduction
- Decreases body fat
- Masculinization of the voice
- The clitoris gets bigger
- Possible hair growth
- Hair loss

If the consumption of anabolic steroids is abused, most of the reversible effects can lead to irreversible ones. That is why the consumption of these anabolic substances is not recommended.

#### Effects and side effects on the muscles

The best-known effect is the growing increase in testosterone (male sex hormone secreted especially in the testicle, but also, and to a lesser extent, in the ovary and in the adrenal cortex, which has morphological, metabolic and psychic effects).

They also increase the levels of other sexual hormones that generate hormonal imbalance that can cause rapid and reduced growth (in the case of adolescents and





children) depriving them of the natural growth that they should have had. When a teenager or child uses steroids, the normal levels of hormones break down and produce internal signals, for example to bones, to stop growing.

#### Effects of steroids on the cardiovascular system

Historically, steroid abuse has been associated with negative effects and secondary effects that cause cardiovascular diseases. Heart and brain attacks are the best known, with no age index.

Steroids, particularly those taken orally, increase the level of low-density lipoprotein (LDL) and lower the level of high-density lipoprotein (HDL). High levels of LDL and low levels of HDL increase the risk of arteriosclerosis: known for the fact that lipoid substances are deposited inside the arteries, altering blood flow.

When blood does not reach the heart due to clogged arteries, the result is often a heart attack. And therefore, if the blood doesn't get to the brain, it can turn into a stroke.

Steroids also increase the chance of blood clots forming in the blood vessels. These clots can interrupt the natural blood flow, injuring our main organ, causing the heart to not pump enough blood.

#### Side Effects of Steroids on the Liver

Steroid abuse is associated with liver tumors. There is also a less common condition known as peliosis hepatis. Hepatic peliosis is characterized by the creation of blood-filled cysts in the liver. Even these cysts or tumors can burst and turn into serious internal bleeding.

#### Risk of infections due to steroid use

Many consumers, in addition to the side effects of anabolic steroids, can be infected with HIV or Hepatitis B and C.





Steroid users must use sterile techniques to inject themselves because if they share needles, they also share infections. Currently there are many cases of bodybuilders with HIV infection as a result of sharing used needles.

Heavy drinking can lead to infective endocarditis, a bacterial disease that causes lifethreatening inflammation of the inner lining of the heart. Bacterial infections cause pain and leave marks in the area affected by the injection.



Source: National Institute of Drug Abuse

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Chronicle Graphic





https://www.medindia.net/patientinfo/performance-enhancing-drugs.htm







https://yourgymguides.com/the-dangers-to-build-muscles-quickly-withsteroids/the-side-effects-of-using-anabolic-steroids/



Negative Steroid Effects by Newsweek, available under Creative Commons Attribution 2.0 License at http://bestbuildmuscleguide.com/wpcontent/uploads/2013/08/negative-steroids-effectssteroids-side-effectsxtu9khdk.gif





# **NUTRITION AND SPORTS**

### INTRODUCTION

One of the most frequent recommendations in medicine is to carry out physical exercise in a moderate way due to the beneficial effects it has on the body.

The athlete's diet must consider the individual nutritional needs of fuel and structural material, as well as regulatory elements based on age, sex and the type of physical activity performed.

Among the oldest myths related to the nutrition of athletes, is that of consubstantiality, according to which the ingestion of large quantities of foods rich in protein was recommended in order to replenish muscle mass, which was supposedly consumed during exercise. Another nutritional myth is the massive consumption of pills, powders and potions rich in vitamins, to enhance the efficiency in obtaining energy by the body from food.

Some common mistakes among athletes are low food intake before a competition, in order to reach a certain weight, or excessive food consumption, to ensure a greater reserve of fuel material for exercise. Another frequent mistake is the ingestion of hyperosmotic solutions with electrolytes or sugars that, instead of favouring rehydration, lead to a reduction in water reserves.

#### **Pre-exercise diet**

In sports with a predominance of aerobic work, glucose and glycogen are essential for muscle metabolism when an exercise is carried out with moderate to strong intensity and lasts for more than 75-90 minutes.

That is why it is important to install in the athlete the idea that a diet with fewer carbohydrates than is advisable can be the origin of early fatigue; because when it comes to aerobic resistance exercise, fatigue generally appears as a consequence of a depletion of muscle glycogen or hypoglycemia.

A few days before a basically aerobic competition, such as a marathon or a triathlon, it is advisable for the athlete to regulate his diet and training in an attempt to maximize (overcompensate) glycogen stores. A practical method to achieve this is to implement a tapering, that is, a training modification, in such a way that in the seven





days prior to the competition the volume is significantly reduced, progressively, maintaining a high training intensity. During days 7, -6, -5 and 4 a low carbohydrate diet is followed. This will cause the muscle to be partially depleted of its glycogen stores and ready to overcompensate. During the three days prior to the competition, the diet has to be rich in carbohydrates, mainly in the form of complex carbohydrates (legumes, grains, fruits and vegetables) because, compared to refined sugars, they are more nutritious from a nutritional point of view. its content in vitamins, minerals and fiber, and because, in addition, they usually have very low levels of fat.

However, eating this amount of food can be accompanied in some people by minor gastrointestinal symptoms such as a feeling of fullness and discomfort. For this reason, some studies advise substituting part of these complex carbohydrates for drinks rich in maltodextrin, low in residues and very energetic, as a method as effective as the diets commonly used to recharge the muscle.

The pre-competition meal, a carbohydrate-rich meal taken in the hours prior to competition, can replenish liver and muscle glycogen stores. The liver, in charge of maintaining plasma glucose levels, requires frequent meals to conserve its small glycogen reserve. Those athletes who follow a fast in the previous 6-12 hours, and do not consume carbohydrates during the competition are more likely to develop hypoglycemia during it.

A meal that mixes fast, intermediate and slow assimilation carbohydrates is preferable. In the previous hour it is highly recommended that all food be in liquid form.

The recommendations made by different committees of nutrition experts on the daily protein needs of a person are in a range between 0.8 and 1.2 g/kg/d, but it is not resolved whether these recommendations are sufficient. for an athlete. These amounts would be sufficient for people who perform low-intensity aerobic physical activity, such as walking; however, athletes who regularly work out at higher intensities need more protein in their diet.

In most cases, sufficient amounts of protein can be obtained from the daily diet. However, in some circumstances, the use of protein supplements may be advantageous, especially since they contain very little fat, purines or cholesterol.

On the one hand, resistance exercise can produce a considerable glycogenolytic effect. And it has been seen that a significant reduction in muscle glycogen concentration is associated with fatigue and decreased strength. There are also studies that suggest that carbohydrate intake immediately before and during such an exercise can improve physical performance, can accelerate the recovery of muscle





glycogen after resistance exercise and can optimize protein synthesis and muscle hypertrophy.

Most sports dieticians maintain that it is not necessary to supplement the diet with proteins and/or amino acids, and that a diet adequate in calories, which provides 15% of these in the form of proteins, is sufficient to cover the needs of the athlete.

#### Nutrition during physical exercise

Some studies indicate that it is possible to cover long distances working at a high average intensity, without depleting muscle glycogen stores, by taking a carbohydrate supplement that is quickly assimilated, regardless of whether they are taken in solid or liquid form. During brief periods of rest, or during periods when exercise intensity drops sufficiently, a rapid synthesis of a certain amount of glycogen can occur in muscle fibers with a low glycogen concentration and not active in that type of activity. exercise.

#### **Post-exercise eating**

The rapid recovery of glycogen stores after a training session or a competition is essential if you want to maintain optimal performance in successive training sessions or in close competitions. However, the speed with which the muscle can replenish its glycogen stores will be closely related to three dietary factors: the time elapsed between the end of physical exercise and the start of carbohydrate consumption, the type of carbohydrate chosen and the amount ingested.

Some compiled studies estimate that administering a carbohydrate supplement every two hours, taking the first dose in the first 15 minutes after finishing exercise, optimizes the rate of glycogen re-synthesis. In addition, the intake of a supplement that mixes carbohydrates and proteins is accompanied by a faster recovery of glycogen stores because it promotes higher levels of insulin in plasma.

On the other hand, there are studies that support the existence of a limit in the intake of these carbohydrates, with a range that would oscillate between 500 and 600 g/d, above which a greater storage of glycogen or an improvement in metabolism is not observed. physical performance.





In short, from a practical point of view, after physical exercise, this athlete should immediately start drinking between 1.5 and 2 litres of water in which, for example, 50-70 grams of glucose or maltodextrin have been dissolved. /litre.

Between 1.5 and 2 hours later, he should have a meal that contains, for example a cold salad to which is added rice, or boiled potato, or peas. Also, a dish that combines meat and rice or mashed potatoes. It is also advisable to include foods such as fruit yogurt, rice pudding, bananas, fruit juices, raisins; and the energy drink with the concentration of carbohydrates already described, which will have to be consumed during the following hours until completing a total of 500 to 600 grams of carbohydrates.

However, when for various reasons a person cannot eat and/or drink carbohydrates frequently (every two hours), the last meal should provide the amount of carbohydrates equivalent to the period of time that they will be without eating.

Glycogen synthesis is similar when two large meals are eaten compared to seven smaller meals. However, if a person decides to eat only twice a day, he has to be aware that each of them will contain a large amount of food if only foods such as legumes, potatoes, rice, pasta, cereals, etc. are eaten. . Therefore, in this case it is necessary to drink solutions with carbohydrate concentrates.

#### CONCLUSION

Daily nutrition has a very significant influence on the physical performance of an athlete. An adequate distribution of energy nutrients is necessary: proteins (10-15%), lipids (30-35%) and carbohydrates (50-60%), as well as the presence of vitamins and minerals to cover the specific needs of the athlete.

In conclusion, a varied and balanced diet, adequate in terms of quantity and quality before, during and after training and competition is essential to optimize this physical performance.

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# **1 EU POLICIES ON GENERAL DRUGS**

Drugs are a complex social and health phenomenon that affects millions of people in the EU. Illicit drugs can have tremendous negative consequences, not only for the people who use the drugs but also for their families and communities. The use of drugs generates enormous costs for and harm to public health and safety, the environment and labor productivity. It also poses security threats linked to violence, crime, and corruption. The illicit drugs market is one of the major sources of income for organized crime groups in the European Union and represents an estimated yearly retail value of at least €30 billion. In the EU, as in many countries around the world, drug trafficking also affects national stability and governance.<sup>1</sup>



Source: https://static.dw.com/image/18016929\_303.jpg

#### **1.1 DRUG POLICY IN EU AND MEMBER STATES**

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Drug policy remains a domain under the competence of EU national governments. The principle of subsidiarity governs this area of policy, meaning that the issue of illicit drugs is controlled at the national, rather than the EU level. This means that the role of the EU is to provide principles and frameworks within which member states can formulate and implement their policy responses with relative autonomy. Member states implement divergent approaches to drug control and there is a lack of consensus among them regarding whether drug policy has to be reformed and, if so, in what direction. This contrasts with other criminal justice areas where the EU

<sup>&</sup>lt;sup>1</sup> European Medicines Agency, The European regulatory system for medicines, 2016, < https://www.ema.europa.eu/en/documents/leaflet/european-regulatory-system-medicines-european-medicines-agency-consistent-approach-medicines\_en.pdf>.



has been more capable of harmonizing policies, such as corruption, anti-money laundering and organized crime.<sup>2</sup>



Although the diversity of drug policies can be viewed as a positive attribute, facilitating experimentation, and accommodating local needs, 3 further harmonization is becoming necessary.<sup>3</sup> The current drugs situation in the EU requires comprehensive and multisector responses across security, health and social policy covering the law enforcement, scientific, environmental, socio-political, technological, and international dimensions of the issue. A people-centered and human rights-oriented approach are the cornerstones of EU drugs policy.<sup>4</sup>

As part of EU efforts in the field of drugs, the EU is taking strategic and operational measures to reduce drug supply and demand by working closely with all partners at national and international level, EU institutions, bodies, and agencies, as well as civil society organizations. The European medicines regulatory system is based on a network of around 50 regulatory authorities from the 31 EEA countries (28 EU Member States plus Iceland, Liechtenstein, and Norway), the European Commission and EMA. This network is what makes the EU regulatory system unique. The network is supported by a pool of thousands of experts drawn from across Europe, allowing it to source the best possible scientific expertise for the regulation of medicines in the EU and to provide scientific advice of the highest quality.<sup>5</sup>

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<sup>&</sup>lt;sup>5</sup> European Medicines Agency, The European regulatory system for medicines, 2016, < https://www.ema.europa.eu/en/documents/leaflet/european-regulatory-system-medicines-european-medicines-agency-consistent-approach-medicines\_en.pdf>, p. 2.



<sup>&</sup>lt;sup>2</sup> Constanza Sanchez-Aviles, *Cannabis Policy Innovations and the Challenges for EU Coordination in Drug Policy*, AJIL Unbound 114, 2020, p. 307.

<sup>&</sup>lt;sup>3</sup> *Ibid.,* p. 308.

<sup>&</sup>lt;sup>4</sup> https://home-affairs.ec.europa.eu/policies/internal-security/organised-crime-and-human-trafficking/drug-policy\_en

EMA and the Member States cooperate and share expertise in the assessment of new medicines and of new safety information. They also rely on each other for exchange of information in the regulation of medicine, for example regarding the reporting of side effects of medicines, the oversight of clinical trials and the conduct of inspections of medicines' manufacturers and compliance with good clinical practice (GCP), good manufacturing practice (GMP), good distribution practice (GDP), and good pharmacovigilance practice (GVP). This works because EU legislation requires that each Member State operates to the same rules and requirements regarding the authorization and monitoring of medicines. IT systems which connect all parties in the network facilitate the exchange of information on aspects such as safety monitoring of medicines, authorization and supervision of clinical trials or compliance with good manufacturing and distribution practices.<sup>6</sup>



Source: https://www.euractiv.com/wp-content/uploads/sites/2/2021/07/w\_56929048-800x450.jpg

## 1.2 EU DRUGS STRATEGY 2021-20257

In the context of the EU Security Union Strategy, the Commission adopted the EU Agenda and Action Plan on Drugs 2021-2025 to set out the Commission's priorities for action in the field of drugs. Based on this document, the Council of the EU approved the <u>EU Drugs Strategy 2021-2025</u>.

<sup>&</sup>lt;sup>7</sup> EU Drugs Strategy 2021-2025, <https://www.consilium.europa.eu/media/49194/eu-drugs-strategy-booklet.pdf>.



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<sup>&</sup>lt;sup>6</sup> Ibid.

The Strategy aims to:

- protect and improve the well-being of society and of the individual,
- protect and promote public health,
- offer a high level of security and well-being for the general public,
- increase health literacy.

The Strategy takes an evidence-based, integrated, balanced, and multidisciplinary approach to the drugs phenomenon at national, EU and international level. It also incorporates a gender equality and health equity perspective.

The Strategy is structured around three policy areas that will contribute to achieving its aim, and three cross-cutting themes in support of the policy areas. Altogether, the Strategy encompasses 11 strategic priorities.

The three policy areas and corresponding strategic priorities are:

- 1. Drug supply reduction: Enhancing Security.
- 2. Drug demand reduction: prevention, treatment, and care services.
- 3. Addressing drug-related harm.



Source: https://cdne-newsroom-prd.azureedge.net/video-thumbnails/16-04-21-129931-Drugs-strategy-V3\_PRV\_thumbnail\_0\_00000.jpg





#### **1. DRUG SUPPLY REDUCTION: ENHANCING SECURITY**

**Strategic priority 1:** Disrupt and dismantle high-risk drug-related organized crime groups operating in, originating in, or targeting the EU Member States; address links with other security threats and improve crime prevention.

**Strategic priority 2:** Increase the detection of illicit wholesale trafficking of drugs and drug precursors at EU points of entry and exit.

**Strategic priority 3:** Tackle the exploitation of logistical and digital channels for medium- and small-volume illicit drug distribution and increase seizures of illicit substances smuggled through these channels in close cooperation with the private sector.

**Strategic priority 4:** Dismantle illicit drug production and counter illicit cultivation; prevent the diversion and trafficking of drug precursors for illicit drug production; and address environmental damage.

# 2. DRUG DEMAND REDUCTION: PREVENTION, TREATMENT, AND CARE SERVICES

**Strategic priority 5:** Prevent drug use and raise awareness of the adverse effects of drugs.

Strategic priority 6: Ensure access to and strengthen treatment and care services.

#### **3. ADDRESSING DRUG-RELATED HARM**

**Strategic priority 7:** Risk- and harm-reduction interventions and other measures to protect and support people who use drugs.

**Strategic priority 8:** Address the health and social needs of people who use drugs in prison settings and after release.

The three cross-cutting themes and corresponding strategic priorities are:

1. International cooperation.

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- 2. Research, innovation, and foresight.
- 3. Coordination, governance, and implementation.



#### **1. INTERNATIONAL COOPERATION**

**Strategic priority 9:** Strengthening international cooperation with third countries, regions, international and regional organizations, and at multilateral level to pursue the approach and objectives of the Strategy, including in the field of development. Enhancing the role of the EU as a global broker for a people-centered and human rights-oriented drug policy.

#### 2. RESEARCH, INNOVATION, AND FORESIGHT

**Strategic priority 10:** Building synergies to provide the EU and its Member States with the comprehensive research evidence base and foresight capacities necessary to enable a more effective, innovative, and agile approach to the growing complexity of the drugs phenomenon, and to increase the preparedness of the EU and its Member States to respond to future challenges and crises.

## **3. COORDINATION, GOVERNANCE, AND IMPLEMENTATION**

**Strategic priority 11:** Ensuring optimal implementation of the Strategy and of the Action Plan, coordination by default of all stakeholders and the provision of adequate resources at EU and national levels.

# 2 NEGATIVE EFFECTS OF PERFORMANCE AFFECTING DRUGS

Drug abuse has devastating effects on the mind, behavior, and relationships, but the permanent effects of drugs on the body can slowly destroy vital systems and functions, culminating in permanent disability or even death. Even legal drugs, taken to excess, can cause significant problems that cannot be easily undone; and for some illegal drugs, excessive consumption might not even be necessary for lifelong damage to occur.<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> <u>Editorial Staff</u>, *The Permanent Effects of Drugs on the Body (Long-Term Impacts)*, American Addiction Centers, 2022 <a href="https://americanaddictioncenters.org/health-complications-addiction/permanent-effects">https://americanaddictioncenters.org/health-complications-addiction/permanent-effects</a>.







Source: https://ichef.bbci.co.uk/news/976/cpsprodpb/12DD4/production/\_124986277\_tv063802223.jpg

## 2.1 PHYSICAL EFFECTS OF DRUG ABUSE<sup>9</sup>

<u>Psychoactive drugs</u> are chemical compounds that affect the mind and body.

Taking different drugs <u>may cause</u>:

- changes in coordination,
- blood pressure and heart rate changes,
- feelings of being more awake or sleepy,
- improved sociability,

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- pain relief,
- changes in the appearance of a person's body.

<sup>9</sup> Jamie Eske, *What are the effects of drug abuse?*, Medical News Today, 2022, <https://www.medicalnewstoday.com/articles/effects-of-drug-abuse>.





Source: https://www.helpguide.org/wp-content/uploads/depressed-woman-beside-a-lot-of-pills.jpg

### 2.2 MENTAL EFFECTS OF DRUG ABUSE<sup>10</sup>

All psychoactive substances will influence mental health by impacting on mood, thoughts, feelings, and behaviors in some capacity as part of the short-term effects. Some people may choose to use for the effects on their mental health. Learn about the different types of drugs and their effects here.

How you react to a substance at a particular point in time can depend on the type of drug and its contents/potency, your starting point regarding how you are feeling and the condition of your mental health as well as the setting (alone, outdoors, in a nightclub, who you are with) you are in.

#### SHORT TERM EFFECTS

People usually consume alcohol and other drugs for their short-term effects, experiencing an intoxication effect, or high or "stoned" feeling. These effects can feel pleasant for minutes or hours. The short-term effects vary from person to person but can also vary from one occasion of use to the next. People may also have unwanted short-term drug-induced side effects that they were not expecting. These are classed as 'short-term' effects because they pass when the drug leaves the persons system. The effects and length of time a person feel's the short-term effects will vary depending on your unique personal factors and the type of drug.

<sup>&</sup>lt;sup>10</sup> Drugs and mental health, <https://www.drugs.ie/drugs\_info/about\_drugs/mental\_health/>.





#### LONG TERM EFFECTS

Frequent use can have more longstanding impacts on your mental health such as anxiety or depression. Psychoactive drugs may cause some people mental health problems. It is not clear why this happens to some people and not others, but risks could be increased if you are using high doses frequently. It may also be that using has triggered concerns that you didn't know you had, or the drug changes the way a certain chemical affects your brain functions. People could experience anxiety, paranoia, depression, or other conditions.

Some people may use to cope with difficult emotions or experiences. Overtime they may find their relationship changes and they don't interact with the drug in the same way. Some people may find they are struggling to cope with the effect of the longer-term drug use and will need to get support.



Source: https://www.helpguide.org/wp-content/uploads/depressed-woman-beside-a-lot-of-pills.jpg

#### DRUGS AND SUICIDE

Alcohol and other drugs can have very unpredictable effects on mood and make people more impulsive. This can cause some people feel suicidal in the short or the long term. The effects of some drugs could make existing feelings or conditions even worse. Some people may find the days after they use drugs difficult as part of a 'come down' or for some, external factors such as drug debt could cause them difficulty.







Source: https://www.midwestdetoxcenter.com/wp-content/uploads/2021/04/The-Physical-Effects-of-Drug-Abuse.jpg



