

# STEROID ADDICTION, ABUSE, AND SYMPTOMS

Written by [Maira K. McChae](#)  
Updated: [December 11, 2020](#)

Anabolic steroid use in the United States is difficult to estimate due to a lack of statistics for the general population. However, a [2013 study](#) estimated that 108.5 million Americans between the ages of 13 and 50 had used steroids in their lifetimes. According to the National Institute on Drug Abuse, a majority of steroid misusers are non-athletic male weightlifters in their 20s and 30s.

Steroids have legitimate medical uses, including treating delayed puberty, loss of testicular function, breast cancer, low red blood cell counts, and debilitation caused by severe hip, knee, or surgical procedures. Some people misuse anabolic steroids to increase muscle growth, strength, and lean body mass. Many users believe steroids reduce recovery time, increase endurance, improve physical performance, and help them achieve their ideal bodies.

Abusing anabolic steroids can lead to serious long-term or potentially permanent health problems, with some issues being gender-specific or age-specific. While it's difficult to know exactly how someone's body will react, using steroids always poses some level of risk. [Negative side effects](#) include increased aggression, violent behavior, risk of heart attack or stroke, liver and kidney damage, infertility, stunted growth in adolescents, and psychological dependence or addiction.

Table of Contents | V. Sources | HELP ORG

- Rehab in Jacksonville
- Rehab in Raleigh
- Rehab in Wilmington
- Rehab in Winston-Salem

## Basics

- Rehab in Brownsville
- Rehab in Center Point
- Rehab in Conroe
- Rehab in Corpus Christi
- Rehab in Dallas
- Rehab in El Paso
- Rehab in Fort Worth
- Rehab in Houston

This guide explains the effects, trends, and dangers of anabolic steroid use, as well as the behavioral treatment methods for steroid addiction based on current research. [Learn more](#) about the medicinal and behavioral treatment methods for steroid addiction based on current research.

### Primary Steroid Dangers

- Addictiveness:** A comprehensive [2007 study by Nutt et al.](#) evaluated the addictive potential of various substances based on factors such as physical dependence, psychological dependence, and pleasure. The scale ranked anabolic steroids high for physical harm but low for dependence. Anabolic steroids received 0.8 for both psychological and physical dependence with a 1.1 for pleasure for an overall mean score of 0.88/3. The only substance listed that scored lower was alkyl nitrates with a 0.87/3 overall.
- Risk of overdose:** Anabolic steroids aren't usually associated with an acute overdose — a drug overdose that occurs suddenly, all at once. Instead, an overdose would be more like the culmination of numerous negative effects caused by long-term use, leading to [steroid toxicity](#). This toxicity may manifest in multiple organ systems and cause death, especially if steroid use continues.
- Unintended side effects:** Steroids have varying side effects, but common side effects include hostility and aggression, severe acne, fluid retention, baldness, increased cholesterol, infertility, cardiovascular damage, liver damage or cancer, and kidney damage. Men may also experience lowered sperm count, shrunken testicles, and breast tissue growth. Women may notice facial hair growth, a deepened voice, irregular or missed periods, and increased masculinity. Adolescents may experience stunted growth and height.
- Legal risks:** Anabolic steroids are a [Schedule III \(3\) controlled substance](#) since the Anabolic Steroids Control Act of 1990. Possession of anabolic steroids without a prescription may be punishable by up to one year in prison and a minimum fine of \$1,000 for a first offense, with subsequent offenses or selling steroids carrying much heavier legal consequences.

### Steroid Background Information

|   |  |
|---|--|
| Derived From                                  | Synthetically produced variants of the naturally occurring male hormone testosterone   |
| Ways Used                                     | Oral ingestion, intramuscular injection, applied to the skin with gels or patches  |
| Scientific Name                               | Androgenic anabolic steroid (AAS)  |
| Slang/Street Names for Adderall               | Roids, Arnolds, Juice, Gym Candy, Pumpers, Stackers, Weight Trainers, and Gear   |
| How Long in Bodily System                     | The half-life of anabolic steroids greatly varies based on the type taken, how it's taken, and <a href="#">the user's age</a> . Injectable steroids can have a half-life of up to <a href="#">two weeks</a> , but some may only be a few days. In contrast, the half-life of oral anabolic steroids is much shorter, ranging from a few hours to a few days. For example, the half-life of the AAS testosterone undecanoate is <a href="#">2.5 hours</a> for oral administration and 21 to 34 days for intramuscular injection. Some steroids can remain in the body for <a href="#">12 months</a> . |
| Punitive Legal Measures: Using/Possession     | Steroids are a <a href="#">Schedule III controlled substance</a> , making it illegal to use/possess them without a valid prescription. A first offense of possession carries a federal penalty of up to one year in prison and a minimum fine of \$1,000. Individual states also have implemented various penalties/fines regarding illegal use/possession of steroids.  |
| Punitive Legal Measures: Selling/Distributing | Individuals convicted of selling/distributing/trafficking steroids could face up to five years in prison and up to a \$250,000 fine if it's their first felony drug offense. For second felony drug offenses, the maximum prison term and fine double.   |
| DEA Drug Rating                               | Schedule III   |

[Back to top](#)

## II. Signs of Abuse

### Behavioral Symptoms of Steroid Usage and Abuse

#### How steroids affect the brain

Anabolic steroids don't activate the brain's rewards system, causing a person to feel high like other drugs of abuse. They also don't increase dopamine in the brain, which is the chemical that encourages drug-taking behavior. Despite these differences, steroid use can still cause [psychological dependence and addiction](#), with an undetermined percentage of users developing a [steroid use disorder](#).

Although steroids don't have the same short-term effects on the brain as other types of drugs, they do affect the [limbic system](#) of the brain. This system controls mood, which is why long-term steroid misuse can lead to extreme mood swings and aggressive behavior. Increased aggression, hostility, and violent behavior are often referred to as "roid rage." The mood and behavioral effects caused by high doses of anabolic steroids may also cause a person to feel overly jealous, delusional, paranoid, and/or invincible.

#### Behavioral signs of steroid usage and abuse

Although it doesn't occur in all anabolic steroid users, roid rage is a common sign of steroid abuse. Behavioral changes can manifest in increased anger, hostility, and aggression, including violent behavior that can create dangerous situations for the user's spouse, other family members, and friends. It's unpredictable how a person will respond to the different types of steroids, but higher doses increase the likelihood that potentially violent behavior, extreme mood swings, and other negative behaviors will occur.

Roid rage may also cause some individuals to develop feelings of invincibility, causing their judgment to become impaired and leading to risky behaviors. They may also experience unreasonable paranoia and extreme jealousy that makes them behave differently than they would normally. Those close to steroid abusers may notice them behaving in a nervous manner, displaying signs of depression, or becoming excessively irritated with minor provocations. Spouses or partners may also face a decreased interest in sexual relationships.

[Psychological addiction to steroids](#) can produce similar behaviors as other drug addictions. Steroid users may continue using the drugs, despite adverse physical and psychological problems. They may give up activities previously important to them because these activities might prevent them from using steroids, cause them to miss working out, or infringe on their dietary restrictions. They'll likely spend ever-increasing amounts of time and money obtaining or trying to obtain steroids and lie about what they're spending their money on. Steroid addicts may eventually try to stop using but without success, potentially because they fear losing muscle mass and unpleasant withdrawal symptoms.

### Physical Symptoms of Steroid Abuse

#### How steroids affect the body

Different people's bodies respond differently to steroids due to variations in their genetic makeup, the type of steroids used, the amount taken, and the duration of abuse. The synthetic testosterone used in steroids has an androgenic and anabolic effect on the body. The androgenic effect promotes physical changes similar to those experienced during male puberty, causing female users to develop masculine features and many of the negative effects of steroid use. The anabolic effect promotes tissue building, primarily muscle, within the body. Steroid use/abuse causes a wide range of adverse effects on the body. Many can impact any user, but others depend on the user's sex and age.

#### Early physical effects of steroids

Short-term adverse physical effects of steroid abuse may differ for each person, and men often see different effects than women. Some early consequences both sexes may experience include severe acne, oily skin, damaged tissue at injection sites, and fluid retention that causes swelling. Sexual and reproductive disorders may occur early on or manifest later. While women may see decreased breast size, men may see an increase in breast tissue. Men may notice shrinkage of the testicles and reduced sperm volume, production, and motility. Women may experience menstrual irregularities, including missed or no periods and more masculine features like body and facial hair growth and voice deepening. Short-term physical effects in men are usually reversible once they stop using steroids, but increased masculinity in women isn't reversible, so it's technically not short-term.

This table illustrates the possible short-term physical effects associated with steroids.

| Short-Term Physical Symptoms                              |  |
|---|--|
| Initial (direct effects)                                  | Taken orally: Nausea, vomiting, and stomach upset<br>Taken by injection: Injection site pain, swelling, redness, bruising, and/or infection  |
| Lingering (days or weeks after taking the drug)           | Acne<br>Oily skin<br>Water retention and swelling<br>Prepubescent boys: Premature sexual development, enlarged penis, and painful, prolonged, and increased frequency of penile erections  |
| Post-Use (several weeks, months, or a lifetime after use) | Yellowing of the skin (jaundice)<br>Fatigue<br>Weakness<br>Dependent/Males: Increased breast tissue, nose bleeds, prostate enlargement, frequent/continuing erections, testicle shrinkage, and decreased sperm volume, production, and motility<br>Females: Menstrual irregularities |

#### Severe and long-term physical effects of steroids

The [long-term physical effects](#) of steroids haven't been thoroughly studied, but several possible consequences have been identified in past users. Potential health risks to both men and women may include adverse cardiovascular effects, such as heart attack and stroke. They may also experience increased blood pressure, an enlarged heart, increased LDL (bad) cholesterol, kidney damage, and liver dysfunction with the possibility of tumors and cancer. Users who inject steroids also increase their risk of contracting hepatitis, HIV, and other infectious diseases if they're sharing needles with other steroid users.

Some short-term physical effects in men listed above may become long-term problems with continued steroid use, including sexual and reproductive disorders. Increased breast tissue may resolve itself or may require surgery to remove. Men may experience a loss of sex drive and risk sterility, baldness, and a greater chance of developing prostate cancer.

Most short-term physical effects in women are irreversible, making them long-term afflictions, including diminished breast size, excessive hair growth, male-pattern baldness, enlarged clitoris, and a permanently deepened voice. They also risk long-term cessation of their menstrual cycle and infertility. Steroid use during pregnancy can impact fetal development.

High hormone levels caused by steroid use prompt the body to discontinue bone growth, which is grave news for adolescents using steroids. When the bones stop growing too early, it can cause stunted growth and height, especially if adolescents use steroids before their final growth spurt. Prepubescent boys may experience uncomfortable short-term sexual side effects, but some may continue on a longer-term basis, including prolonged and increased frequency of penile erections.

This table illustrates the possible long-term physical effects associated with steroids.

| Long-Term Physical Symptoms |   |
|-----------------------------|---|
| Chronic Users               | Increased LDL cholesterol levels<br>Cardiovascular issues<br>Enlarged heart<br>Elevated blood pressure<br>Increased risk of blood clots<br>Heart attack or stroke<br>Liver disorder, tumors, cancer<br>Kidney damage or failure<br>Depression<br>Males: Sterility, baldness, reduced sex drive, increased risk for prostate cancer, enlarged breast tissue (may require surgical excision)<br>Females: Infertility, decreased breast size, voice deepening, excessive body and facial hair growth, enlarged clitoris, male pattern baldness, enlarged clitoris, absent menstruation<br>Adolescents: Stunted growth and height |
| Withdrawal                  | Loss of appetite<br>Loss of muscle mass<br>Anxiety<br>Insomnia<br>Tiredness<br>Restlessness<br>Mood swings<br>Reduced sex drive<br>Steroid cravings<br>Depression<br>Possibility of suicide attempts  |

#### Further Resources

Both the [National Institute of Drug Abuse](#) (NIDA) and the [U.S. National Library of Medicine](#) offer in-depth information on both the symptoms and treatment of anabolic steroids.

[Back to top](#)

## III. Steroid Usage

### Global steroid usage is poorly documented but plainly prevalent

There hasn't been a comprehensive analysis on the worldwide prevalence rate of anabolic steroid use completed, so global usage is poorly documented. Studies concerning use have mostly been limited to the United States, Canada, some European countries, and Brazil. By combining data from the studies completed, researchers determined that the global lifetime prevalence rate was [3.3% of the population](#), with rates much more prevalent in males, at 6.4%, compared to females, at 1.6%.

Prevalence has been predominantly in Western countries, but some studies indicate that steroid use has been increasing in popularity in the [Eastern Mediterranean region](#). According to a [2017 review](#), anabolic steroid abuse has become particularly prevalent in the United States, British Commonwealth countries, Scandinavia, and Brazil but remains rare in China, Japan, and Korea.

### Steroid Usage Demographics in the U.S.

#### Steroid use remains high in the U.S., but usage has dropped among adolescents

Misuse of anabolic steroids commonly begins in [young adulthood](#), rather than adolescence, with only about [22% of steroid users](#) beginning before age 20. Most steroid misusers are males in their 20s and 30s, with usage less common in women due to increased concern over becoming extremely muscular.

A [2013 study](#) pooled data from previous studies to estimate usage in the United States. It was determined that at that time about 2.9 to 4 million Americans had used anabolic steroids in their lifetimes. It was also estimated that an average of 30% of steroid users develop dependence, meaning one million Americans may have experienced anabolic steroid dependence.

While it's usually adults who misuse steroids, a small number of adolescents also misuse them, but this number seems to be decreasing. [Reports in 2002](#) indicated that 2.5% of 8th graders, 3.5% of 10th graders, and 4% of 12 graders had used steroids at some point in their lifetimes. [By 2019](#), these numbers had dropped significantly to 1.5% of 8th graders and 1.6% of 10th and 12th graders.

#### Demographics of Steroid Usage

|                       | Past Year (2018) | Lifetime |
|-----------------------|------------------|----------|
| 8th grade (14-15 yo)  | 0.80%            | 1.5%     |
| 10th grade (15-16 yo) | 0.80%            | 1.6%     |
| 12th grade (17-18 yo) | 1%               | 1.6%     |

Source: [Monitoring the Future Study: Trends in Prevalence of Steroids for 8th Graders, 10th Graders, and 12th Graders: 2019](#)

[Back to top](#)

## IV. How to Find Help

Even though anabolic steroids don't produce a euphoric high like narcotics and other drugs, they can lead to psychological dependence and addiction, making it difficult for people to quit using them, even after experiencing negative effects. Overcoming addiction often requires help from a reputable inpatient or outpatient rehabilitation facility. Learn more about the treatment process by reading our [Steroid rehabilitation guide](#), which is a comprehensive resource for starting your road to recovery.

### Staging an Intervention

If you have a loved one who's struggling with addiction, [staging an intervention](#) is often the most first-meaning step towards sobriety, but it's important to be strategic and loving in your approach. Even the best well-meaning of interventions can have a negative effect if they aren't handled correctly.

#### 5 Tips for Staging an Intervention

**1. Don't Do It Alone.** A professional interventionist is always the most qualified to guide a successful intervention. Also, rely on non-addict family and friends — especially those who have a close relationship with you or the addict.

**2. Research Ahead of Time.** It's best to do plenty of research ahead of time to gather insight on the addiction and how it affects the addict. Also, be prepared with local resources for getting help.

**3. Write Out Your Statement.** During the actual intervention, emotions will likely be running high, so it's best to have a statement of how the person's addiction has impacted you and your relationship with him or her. These statements should be honest yet written from a place of love — no personal attacks.

**4. Offer Help.** It's important for everyone attending the intervention to offer tangible help and support as the person works through detox and rehabilitation.

**5. Set Boundaries.** If the person refuses to seek help and take the next steps outlined, it's important that they understand that everyone present will end codependent and enabling behaviors.

## V. Sources

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3961570/>
- <https://www.drugabuse.gov/publications/research-reports/steroids-other-appearance-performance-enhancing-drugs>
- <https://www.who.int/news-room/fact-sheets/detail/steroid-use>
- <https://www.deadiversion.usdoj.gov/pubs/brochures/steroids/professionals/>
- <https://www.drugabuse.gov/publications/research-reports/steroids-other-appearance-performance-enhancing-drugs>
- <https://www.who.int/news-room/fact-sheets/detail/steroid-use>
- <https://www.drugabuse.gov/publications/research-reports/steroids-anabolic-steroids>
- <https://www.ncbi.nlm.nih.gov/pubmed/17382831>
- <https://www.ncbi.nlm.nih.gov/books/NBK544259/>
- <https://www.deadiversion.usdoj.gov/pubs/brochures/steroids/lawenforcement/>
- [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2005/013718s023tbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2005/013718s023tbl.pdf)
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC719134/#bib6>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5915615/>
- <https://www.deadiversion.usdoj.gov/pubs/brochures/steroids/public/>
- [https://www.deadiversion.usdoj.gov/fed\\_regs/rules/2009/fr1204.htm](https://www.deadiversion.usdoj.gov/fed_regs/rules/2009/fr1204.htm)
- <https://www.dea.gov/sites/default/files/2020-06/steroids-2020.pdf>
- <https://www.drugabuse.gov/publications/research-reports/steroids-other-appearance-performance-enhancing-drugs>
- <https://www.who.int/news-room/fact-sheets/detail/steroid-use>
- <https://teens.drugabuse.gov/drug-facts/steroids-anabolic#topic-1>
- <https://www.drugabuse.gov/drug-topics/steroids-anabolic/>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2875348/>
- [https://academic.oup.com/jl/article/44/suppl\\_1/1269/119-00217-8](https://academic.oup.com/jl/article/44/suppl_1/1269/119-00217-8)
- <https://link.springer.com/journal/10.1007/s11469-019-00217-8>
- <https://pubmed.ncbi.nlm.nih.gov/28245998/>
- <https://www.drugabuse.gov/publications/research-reports/steroids-other-appearance-performance-enhancing-drugs>
- <https://www.who.int/news-room/fact-sheets/detail/steroid-use-in-teens>
- <https://www.drugabuse.gov/drug-topics/steroids-anabolic/steroids-trends-statistics>
- <https://www.help.org/steroids-addiction-treatment-and-rehab/>
- <https://store.samhsa.gov/system/files/phi1112.pdf>

[Back to top](#)

