

Are steroids addictive?

Yes, they can be.

Addiction to steroids differs from many other drugs in that tolerance to the effects does not develop.

However, some people who abuse steroids meet criteria for drug dependence in that they

- continue to take steroids, even when they experience negative physical or emotional effects
- spend large amounts of time and money obtaining the drugs
- experience withdrawal symptoms such as mood swings, fatigue, restlessness, depression, loss of appetite, insomnia, reduced sex drive and the desire to take more steroids.

What are the long-term effects of taking steroids?

Some of the effects of steroids disappear when drug use is stopped, but others are permanent. The effects of long-term use include:

- acne, cysts, oily hair and skin, and thinning scalp hair in both sexes
- feminization in men, including permanent breast development
- testicle shrinking, difficulty or pain urinating and increased risk of prostate cancer in men
- masculinization in women, including breast size and body fat reduction, coarsening of the skin, enlargement of the clitoris, deepening of the voice, excessive growth of body hair, loss of scalp hair and changes or cessation of the menstrual cycle; with long-term use, some of these effects may be permanent
- in children or adolescents, the high levels of testosterone stop bone growth, preventing them from *ever* growing to full height
- aggression and violence; personality changes revert when drug use is stopped.

One in a series...

| | |
|----------------------------------|-----------------|
| Alcohol | Hallucinogens |
| Alcohol, Other Drugs and Driving | Heroin |
| Amphetamines | Inhalants |
| Anabolic Steroids | Ketamine |
| Benzodiazepines | LSD |
| Caffeine | Methadone |
| Cannabis | Methamphetamine |
| Cocaine | Opioids |
| Ecstasy | Rohypnol |
| GHB | Tobacco |

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Do You Know...

Generic and trade names: oxymetholone (Anadrol®), methandrostenolone (Dianabol®), stanozolol (Winstrol®), nandrolone decanoate (Deca-Durabolin®), testosterone cypionate (Depo-Testosterone®), boldenone undecylenate (Equipoise®) and others
Street names: the juice, the white stuff, roids

What are they?

Many kinds of steroids occur naturally in various hormones and vitamins. Drugs known as "anabolic steroids" are made in laboratories and have the same chemical structure as the steroids found in the male sex hormone, testosterone. The muscle-building (anabolic) and masculinizing (androgenic) effects of these drugs make them appealing to athletes and bodybuilders.

Anabolic steroids have few medical uses. Their primary use is to promote weight gain and muscle development in farm animals. They are rarely prescribed to humans; however, they are sometimes used to treat delayed puberty, some types of impotence, and wasting of the body caused by AIDS and other diseases.

Steroidal "supplements," such as dehydroepiandrosterone (DHEA), are



converted into testosterone or a similar compound in the body. Although little research has been done on steroidal supplements, if taken in large quantities, they likely produce the same effects, and the same side-effects, as anabolic steroids. DHEA is not available in Canada, but is sold in health food stores and on the Internet in the United States.

Where do steroids come from?

Anabolic steroids manufactured by pharmaceutical companies are available legally only by prescription. Most steroids used by athletes are smuggled, stolen or made in clandestine laboratories. Veterinary drugs are often used.

Although trafficking these drugs is illegal, the penalties imposed tend to be minor. Possession of steroids is legal.

What do steroids look like, and how are they used?

Anabolic steroids come in the form of tablets, capsules, a solution for injection and a cream or gel to rub into the skin. Weightlifters and bodybuilders who use steroids often take doses that are up to 100 times greater than those used to treat medical conditions.

Regimented methods of taking steroids are believed to enhance the effects of these drugs and lessen harm to the body. However, there is no scientific evidence to back up these claims. Such methods include the following:

- Cycling: a period of taking and then not taking the drugs in the belief that the drug-free cycle allows the body to recover normal hormone levels
- Pyramiding: taking doses in cycles of six to 12 weeks, starting with a low dose, then slowly increasing it, and then decreasing the amount to zero, believing this allows the body time to adjust to the high doses

- Stacking: taking two or more types of steroids, mixing oral and injectable forms, believing the different drugs interact to have greater effect.

Who uses steroids?

Most non-medical use of steroids is by athletes who believe that these drugs will help them to win, and by bodybuilders and young men who think they will look better with bigger muscles.

People who use steroids to improve athletic performance and build muscles are mostly men; however, the highest increase in use is among young women. U.S. studies have also noted a disturbing increase in use among adolescents concerned about body image. Some people take steroids because they have a distorted body image where they believe their muscles are small or that they have too much body fat, even when they are lean and muscular. Steroid use has also been found among people with a history of abuse or assault who wish to build muscles in order to protect themselves better.

Steroid use is banned by the International Olympic Committee and many other amateur and professional sports organizations. But because drug testing is costly, tests of professional athletes are generally "random," and are often preceded by a warning. Regular mandatory testing is standard only at the international level of competition.

Successful prevention of steroid abuse focuses on teaching people about how to refuse drugs and about other ways to build muscle bulk and strength.

How do steroids make you feel?

Steroids can produce a variety of psychological effects ranging from euphoria to hostility. Some people who take steroids say the drugs make them feel powerful and energetic. However, steroids are also known to increase irritability, anxiety and aggression and cause mood swings, manic symptoms and paranoia, particularly when taken in high doses.

Variations in how people respond to steroids may be due in part to individual differences, or depend on which type of steroid was taken. Scientific understanding of the effects of non-medical anabolic steroid use is limited.

High doses, especially when taken orally, cause nausea, vomiting and gastric irritation. Other effects include fluid retention and trembling.

Are steroids dangerous?

Yes. Taking high doses of steroids increases risk of

- enlargement and abnormalities of the heart, blood clots, high blood pressure, heart attack and stroke. Steroid-related heart failure has occurred in athletes younger than 30.
- aggression and violence ("roid rage"), negative personality change, mania and depression, which may lead to suicide. Depression may persist for a year after drug use is stopped.
- hepatitis, liver enlargement and liver cancer
- reduced fertility in both women and men
- tendon ruptures, cessation of growth in adolescents
- hepatitis or HIV if steroids are injected using shared needles, and infections if steroids are injected with dirty needles.

Anabolic Steroids