



Are Steroids Worth the Risk?

Dominic has baseball on the brain. Just being good isn't enough — he wants to be the best. He dreams of playing in the majors someday, but worries about the intense competition for a position on a major league team. His girlfriend, Deborah, is also a highly competitive athlete whose appearance and performance are very important to her. She wants to stand out — both physically and athletically.

Because of the pressure they each feel to excel, Dominic and Deborah wonder whether steroids would help them. They've heard rumors about the bad side effects of steroids, but they don't have many facts. Here's the scoop on steroids.

What Are Steroids?

Steroids, sometimes referred to as roids, juice, hype, weight trainers, gym candy, arnolds, stackers, or pumpers, are the same as, or similar to, certain hormones in the body. The body produces steroids naturally to support such functions as fighting stress and promoting growth and development. But some people use steroid pills, gels, creams, or injections because they think steroids can improve their sports performance or the way they look.

Anabolic steroids are artificially produced hormones that are the same as, or similar to, **androgens**, the male-type sex hormones in the body. There are more than 100 variations of anabolic steroids. The most powerful androgen is **testosterone** (pronounced: tess-**toss**-tuh-ron). Although testosterone is mainly a mature male hormone, girls' bodies produce smaller amounts. Testosterone promotes the masculine traits that guys develop during puberty, such as deepening of the voice and growth of body hair. Testosterone levels can also affect how aggressive a person is.

Athletes sometimes take anabolic steroids because of their testosterone-like effects.

Another group of steroids, sometimes called **steroidal supplements**, contains dehydroepiandrosterone (DHEA) and/or androstenedione (also known as andro). For the most part, steroidal supplements, which used to be found at health food stores or gyms, are now illegal and require a prescription. DHEA is one of the few exceptions and can still be bought over the counter.

Steroid supplements are weaker forms of androgen. Their effects aren't well known, but it's thought that, when taken in large doses, they cause effects similar to other androgens like testosterone. Here's what *is* known about steroidal supplements: Companies that manufacture them often use false claims and very little is known about the long-term effects some of these

substances have on the body. That's one reason why the government took action to protect citizens by passing laws controlling steroid distribution.

How Do Anabolic Steroids Work?



Steroids – Just What the Doctor Ordered . . . Sometimes

The term "steroids" is also used to describe some types of non-anabolic steroids, such as cortisone, that have medical uses and are available by prescription to treat problems like asthma or arthritis. These steroid medications do not have the male hormone effects of androgens.

Anabolic steroids stimulate muscle tissue to grow and "bulk up" in response to training by mimicking the effect of naturally produced testosterone on the body. Anabolic steroids can remain in the body anywhere from a couple of days to about a year. Steroids have become popular because they may improve endurance, strength, and muscle mass. However, research has not shown that steroids improve skill, agility, or athletic performance.

Dangers of Steroids



Buff But Rough

One of the major reasons why people decide to take steroids is because they think steroids will improve their appearance. But actually, they can do the reverse: Some less serious side effects of steroid use include acne, oily hair, purple or red spots on the body, swollen legs and feet, and persistent bad breath.

Anabolic steroids cause many different types of problems. Some of the more serious or long-lasting side effects are:

- premature balding or hair loss
- dizziness

- mood swings, including anger, aggression, and depression
- seeing or hearing things that aren't there (hallucinations)
- extreme feelings of mistrust or fear (paranoia)
- problems sleeping
- nausea and vomiting
- trembling
- high blood pressure that can damage the heart or blood vessels over time
- aching joints
- greater chance of injuring muscles and tendons
- jaundice or yellowing of the skin; liver damage
- urinary problems
- shortening of final adult height
- increased risk of developing heart disease, stroke, and some types of cancer

Specific risks for girls associated with anabolic steroids include:

- increased facial hair growth
- development of masculine traits, such as deepening of the voice, and loss of feminine body characteristics, such as shrinking of the breasts
- enlargement of the clitoris
- menstrual cycle changes

Specific risks for guys include:

- testicular shrinkage
- pain when urinating
- breast development
- impotence (inability to get an erection)
- sterility (inability to have children)

Steroids can also have serious psychological side effects. Some users become aggressive or combative, developing "roid rage" — extreme, uncontrolled bouts of anger caused by long-term steroid use.

Steroid users who inject the drugs with a needle are at risk for infection with HIV (human immunodeficiency virus), the virus that causes AIDS, if they share needles with other users. People who use dirty needles are also at greater risk for contracting hepatitis, a disease of the liver, or bacterial endocarditis, an infection of the inner lining of the heart.

Steroids: Stacking and Addiction

Some people combine or "stack" anabolic steroids with other drugs. Other steroid users may "pyramid" or "cycle" their steroid doses, starting with a low dose of stacked drugs and then periodically increasing and decreasing the dosage of the steroid, which users believe helps their bodies recuperate from the drugs.

Because even scientists don't understand exactly how steroids interact with each other or possibly cause reactions to other medications, it's possible that a person who stacks or cycles steroids can take a deadly combination. Emergency departments have reported cases of vomiting, tremors, dizziness, and even coma (unconsciousness) when patients were admitted after taking combinations of steroids.

A lot of people tell themselves they'll only use steroids for a season or a school year. Unfortunately, steroids can be addictive, making it hard to stop taking them.

Steroid users can spend lots of time and money trying to get the drugs. And once users stop taking steroids, they're at risk of developing irritability, paranoia, and severe depression, which may lead to suicidal thoughts or attempted suicide. Some of the long-term effects of steroids may not show up for many years. People who use steroids also appear to be at higher risk for using other drugs, such as alcohol or cocaine.

What Is Human Growth Hormone?

You may have heard of something called Human Growth Hormone, or hGH, in relation to sports supplements and maybe even related to steroids. Like steroids, hGH is only legal when prescribed by a doctor for a medical condition. Doctors prescribe hGH for people whose bodies don't naturally make enough growth hormone, a condition known as growth hormone deficiency. However, recent trends show an increase in growth hormone being abused as an athletic supplement.

A lot of myths surround hGH and its effects on athletes. As with steroids, there is absolutely no evidence that growth hormone helps to improve athletic performance. Here are some risks you should be aware of:

- Any type of hGH that is not obtained by prescription is not regulated by the government and could be almost anything.
- If you buy what may be called "growth hormone," "growth stimulators," or "growth factors" online, it's likely they're not really hGH. Many websites claim to be selling growth hormone, but they're really selling amino acids that don't significantly increase growth hormone levels in your body.
- If the false claims of performance benefits from hGH don't bother you, the price probably will — \$5,000 for a month's prescription, meaning that the street value for just a month could run anywhere from \$5,000–\$10,000.
- Because growth hormone can only be injected, like some steroids, there's a risk of contracting HIV or other diseases (like hepatitis) if people share needles.

Strong Alternatives to Steroids

Anabolic steroids are controversial in the sports world because of the health risks associated with them and their unproven performance benefits. Most are illegal and are banned by professional sports organizations and medical associations. As seen in the high-profile cases, if an athlete is caught using steroids, his or her career can be destroyed.

When it comes right down to it, harming your body or getting disqualified aren't smart ways to try to improve your athletic performance. Being a star athlete means training the healthy way: eating the right foods, practicing, and strength training without the use of drugs.

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