

The Effects Anabolic Steroids Have on the Brain

by Robert Alexander Center | Jan 7, 2022 | Blog | 0 comments



Medically prescribed to treat conditions including eczema, arthritis, and some cancers, the high levels of testosterone in anabolic steroids have led to prevalent and ongoing illicit use in individuals seeking to bulk their muscles or improve athletic performance. While steroid use is prevalent and regularly tested amongst pro athletes, studies continually reveal that this problem most regularly arises among adolescent males. That's a significant problem considering that the ongoing use of anabolic steroids from a young age can result in a range of physical setbacks, including stunted growth and low sperm counts. Even outside of these physical setbacks, notable behavioral shifts point to the fact that untreated anabolic steroid abuse can also wreak havoc in the brain.

The fact that steroid-induced brain changes are often irreversible and extreme is especially concerning for young users. In this article, we consider in-depth look at anabolic steroids effects on the brain, and how that ultimately impacts behavior in individuals who don't seek [treatment](#).

Anabolic steroids effects on the brain

There are now a lot of in-depth and relatively complex studies into the often worrying impact that anabolic steroids can have on the brain, but to put it simply, abuse of this substance has been found to significantly impact the functioning of the limbic system. This is the part of the brain that impacts mood and can cause significant and notable mood and personality shifts in ongoing users.

A 2013 study that used three imaging techniques to study different parts of the brain out of a pool of weightlifters revealed especially concerning results. Structural imaging data particularly revealed a significantly enlarged amygdala (the part of the brain that regulates emotions, aggression, and anxiety) in steroid users. Abnormalities were also noted in the reduction of brain sugar levels, resulting in early cell deaths that leave long-term steroid users at significantly increased risk of conditions like dementia.

Further studies have also linked anabolic steroid use to the brain's neurotransmitter systems, including mood-regulating hormones like dopamine and serotonin, with more notable impact inevitably registered among extended users.

How does this impact behavior?

Understanding the science is one thing, but many individuals fail to realize how these sometimes notable brain changes impact behavior overall. Perhaps the most worrying thing about the impact of anabolic steroids is the fact that they effect largely emotional/mood-based centers in the brain, resulting in some shocking, uncontrollable, and often distressing behavioral changes in short and long term users, the most notable of which include –

1) Sudden mood swings

Irritability and sometimes aggressive mood swings are often the most notable and earliest behavioral changes to result from anabolic steroid abuse. Often referred to as 'roid rage', this can lead to difficulty both controlling emotions and appropriately handling rage, leaving users at increased risk of both violent incidents and overwhelming emotions.

2) Increased anxiety

Long-term users of anabolic steroids also report notably increased levels of anxiety and feelings of severe unrest or mistrust. This can increase isolation in steroid users who naturally withdraw, increasing the risks of developing further mental health setbacks including depression.

3) Feelings of invincibility

Anabolic steroids provide an initial boost that can also leave users feeling invincible, thus increasing the risks that they'll either push their bodies too far or take unnecessary risks that can quickly lead to injury. Worse, the imagined strength that steroids offer can prevent users from noticing injuries of this nature until they've done extreme damage.

4) Growing feelings of dependency

Studies also reveal that [32% of people who use anabolic steroids](#) develop a dependency on them, resulting in both physical withdrawals and mental reliance. In some dependent individuals, mental struggles as a result of withdrawal amidst this reliance can even include depressions and suicide attempts.



Treatment through anabolic steroid addiction

As well as helping to reduce a user's physical dependency on steroids through professionally overseen [detoxification](#), treatments including [intensive outpatient programs](#), and even periods as an inpatient can be a huge help for addressing anabolic steroid abuse. The sooner individuals seek this help, the better able they'll be to directly address how usage has impacted their moods, as well as preventing further damage that could lead to irreversible changes. [Outpatient programs](#) that incorporate a wide range of therapies and personal focuses can prove especially effective for this purpose, providing users of anabolic steroids with accessible treatment that helps them to start on a new path while simultaneously freeing them to improve the lifestyle that led them to trouble in the first place.

Submit a Comment

You must be [logged in](#) to post a comment.



The Robert Alexander Center for Recovery is a brand new, state-of-the-art addiction treatment center in Kentucky, offering evidence-based treatment for substance abuse.

Site Map

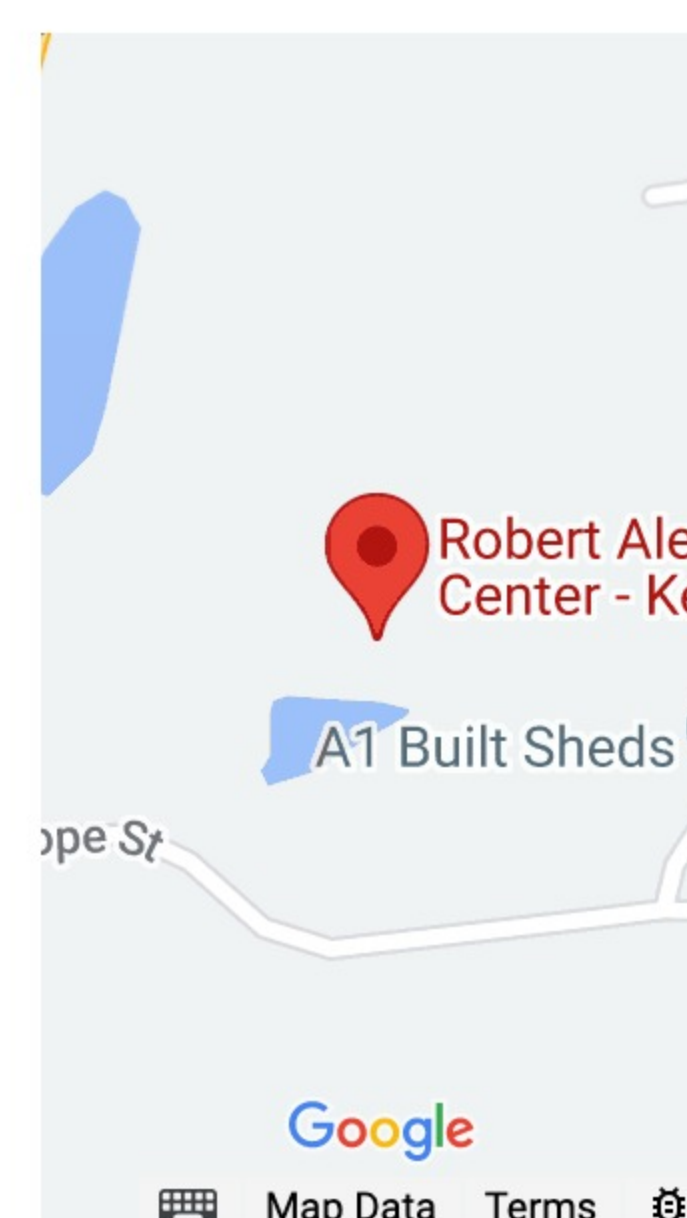
- [Home](#)
- [Tour](#)
- [About](#)
- [Admissions](#)
- [Blog](#)
- [Privacy Policy](#)

Treatment Solutions

- [Detoxification](#)
- [Residential](#)
- [Partial Hospitalization](#)
- [Outpatient Programs](#)
- [Aftercare & Alumni](#)

Get In Touch

130 Hope Street
 Mount Washington,
 Kentucky 40047



Addictions

- [Alcohol Abuse](#)
- [Opioid Addiction](#)
- [Heroin Addiction](#)
- [Cocaine Addiction](#)
- [Crystal Meth Addiction](#)
- [Drug Addiction](#)
- [Alcoholism](#)

About

- [About](#)
- [Media & Videos](#)
- [Last Articles](#)
- [Careers](#)

Areas We Serve

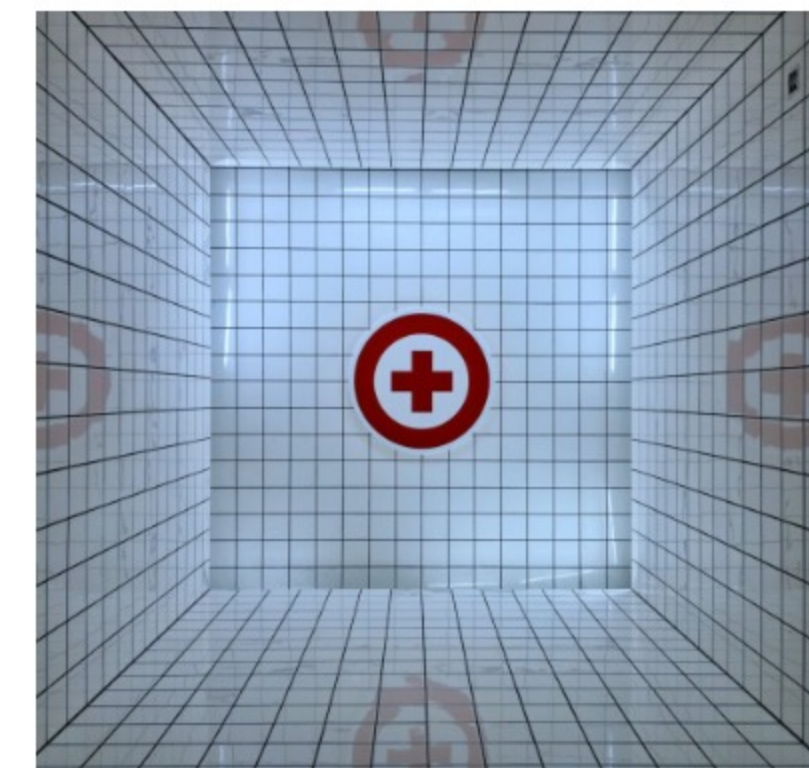
- [Louisville, Kentucky](#)
- [Lexington, Kentucky](#)
- [Bowling Green, Kentucky](#)
- [Corbin, Kentucky](#)
- [Richmond, Kentucky](#)
- [Cincinnati, Ohio](#)
- [Nashville, Tennessee](#)

Who We Help

- [Men](#)
- [Women](#)
- [Professionals](#)
- [LGBTQIA+](#)
- [College Students](#)

Treatment Programs

- [30 Day Drug Rehab Program](#)
- [60 Day Drug Rehab Program](#)
- [90 Day Drug Rehab Program](#)

 Search


Top 6 Benefits of Detoxing with Professional Guidance at a Rehabilitation Center



Rehabilitating Drug Treatment to Your Needs



MAT in Different Stages of Recovery: From Drug Detox to Maintenance



What You Can Anticipate in Your Initial Evaluation for Drug and Alcohol Rehabilitation



Choosing the Right LGBTQIA+ Inclusive Addiction Treatment Center: What to Consider

Key Resources

[Home](#)

[Tour](#)

[Treatment](#)

[Detox](#)

[Residential](#)

[Partial Hospitalization](#)

[Intensive Outpatient](#)

[Outpatient](#)

[Family Program](#)

[Aftercare Program](#)

[Reviews](#)

[About](#)

[Admissions](#)