WARWICK BRAIN & SPINE THERAPY NEUROFEEDBACK
CALVIN HARGIS, BCN, BOARD CERTIFIED NEUROFEEDBACK THERAPIST
40 MAPLE AVENUE, ROUTE 94
WARWICK, NY 10990
845-986-5500

Adderall, Dexedrine, Dextrostat and Vyvanse are all Amphetamines!

The neurotoxicity of amphetamines during the adolescent period.

Teixeira-Gomes A1, Costa VM2, Feio-Azevedo R2, Bastos Mde L2, Carvalho F2, Capela JP3. Int J Dev Neurosci. 2015 Apr; 41:44-62. doi: 10.1016/j.ijdevneu.2014.12.001. Epub 2014 Dec 4

Abstract

Amphetamine-type psychostimulants (ATS), such as amphetamine (AMPH), 3,4-methylenedioxymethamphetamine (MDMA), and methamphetamine (METH) are psychoactive substances widely abused, due to their powerful central nervous system (CNS) stimulation ability. Young people particularly use ATS as recreational drugs. Moreover, AMPH is used clinically, particularly for attention deficit hyperactivity disorder, and has the ability to cause structural and functional brain alterations. ATS are known to interact with monoamine transporter sites and easily diffuse across cellular membranes, attaining high levels in several tissues, particularly the brain. Strong evidence suggests that ATS induce neurotoxic effects, raising concerns about the consequences of drug abuse. Considering that many teenagers and young adults commonly use ATS, our main aim was to review the neurotoxic effects of amphetamines, namely AMPH, MDMA, and METH, in the adolescence period of experimental animals. Reports agree that adolescent animals are less susceptible than adult animals to the neurotoxic effects of amphetamines. **The susceptibility to the neurotoxic effects of ATS seems roughly located in the early adolescent period of animals. Many authors report that the age of exposure to ATS is crucial for the neurotoxic outcome, showing that the stage of brain maturity has a strong importance.** Moreover, recent studies have been undertaken in young adults and/or consumers during adolescence that clearly indicate brain or behavioural damage, arguing for long-term neurotoxic effects in humans. There is an urgent need for more studies during the adolescence period, in order to unveil the mechanisms and the brain dysfunctions promoted by ATS.