

CO-OCCURRING CONDITIONS · 5.8

ADHD and Substance Use: Risk, Self-Medication, and the Path Out

The link between ADHD and substance use is one of the most consistent findings in adult ADHD research. Self-medication, impulsivity and reward signalling all play a part. Treating the ADHD is usually part of the recovery picture.

FOR

Adults managing ADHD alongside substance use

AUDIENCE AGE

18+

REVIEWED

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PART OF

The NeuroFX resource library

IN SUMMARY

ADHD and Substance Use: Risk, Self-Medication, and the Path Out

The link in plain terms

- **Childhood ADHD roughly doubles the risk of adult substance use disorder.** The 2011 Lee meta-analysis pooled prospective data showing elevated risk for nicotine, alcohol, cannabis and illicit drug use. Co-occurring conduct disorder amplifies the risk substantially.
- **Around 23 percent of adults in substance use treatment also meet ADHD criteria.** The 2012 van Emmerik-van Oortmerssen meta-analysis showed this figure is higher in stimulant use disorder specifically. Many people are diagnosed with substance use disorder first and ADHD later.
- **Stimulant ADHD treatment reduces substance use risk in adults.** The 2014 Chang et al. Swedish registry study found periods on medication were associated with lower substance use events than periods off medication in the same individuals. The longstanding clinical concern that stimulants increase risk has not held up in cohort data.

Why the two travel together

- **Self-medication is the most common pattern.** Cannabis quiets mental racing and helps with sleep. Alcohol quietens cognitive over-activity at the end of the day. Caffeine and nicotine improve focus. Cocaine and methamphetamine can produce a paradoxical calming effect via dopamine and noradrenaline mechanisms.
- **Impulsivity drives initiation and continuation.** The 'one more drink' decision and the 'I will start cutting down tomorrow' pattern are amplified by underlying ADHD impulsivity.
- **Reward and dopamine signalling is involved.** Substances of misuse produce stronger reward responses in brains with reduced baseline dopamine signalling. This makes the cycle harder to interrupt.
- **Co-occurring mental health amplifies the risk.** Anxiety, depression and trauma-related difficulties are all over-represented in ADHD and all drive substance use independently. The combination is part of why risk is elevated.
- **Alcohol is the most common UK pattern.** Heavy drinking worsens ADHD symptoms the day after and interacts with stimulant medication cardiovascular effects. Recovery is more sustainable when the ADHD is also treated.

What helps and where to start

- **Severe active substance use is the medical priority.** Detoxification and stabilisation usually precede ADHD assessment and treatment. NHS community drug and alcohol services handle this; ADHD treatment can follow once stable.
- **Non-controlled-drug options are sometimes the right starting point.** Atomoxetine or guanfacine, where a history of stimulant misuse is in the picture. Monitored stimulant treatment under specialist supervision is also appropriate for many adults in recovery.
- **Honest disclosure matters.** Patient honesty about substance use with the prescriber is essential. Stimulant prescriptions are controlled drugs and the prescribing decision depends on accurate information. NeuroFX makes the conversation a clinical one, not a moral one.

WHEN TO SPEAK TO A PROFESSIONAL

Speak to your GP about both substance use and possible ADHD. NHS routes for substance use treatment and ADHD assessment exist; Right to Choose in England applies to ADHD. National support includes Alcoholics Anonymous, Narcotics Anonymous, SMART Recovery, and FRANK (0300 123 6600). Seek urgent help via 111, 999 or A&E for any acute mental health crisis or substance-related medical emergency.

SOURCES

NICE NG87; Lee et al. 2011 (Clin Psychol Rev); van Emmerik-van Oortmerssen et al. 2012 (Drug Alcohol Depend); Chang et al. 2014 (J Child Psychol Psychiatry); Faraone et al. 2021 (Neurosci Biobehav Rev)

NEXT STEPS**Speak to NeuroFX**

Private ADHD and autism assessment for adults and children aged 6 and upwards.
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