

Adolescent Substance Abuse — Risk Factors and Screening

[See online here](#)

Substance abuse is the use of drugs for unintended purposes that harmful to the consumer and/or others. Up to third of adolescents are at risk of substance abuse with a higher risk seen in neglected children, those exposed to drugs by bad influence, poor socio-economic status, and family history of drug addicts. Identification of these children is done by the CRAFFT screening tool or the CAGE questionnaire. Clinical presentation of substance abuse patients can vary based on the type of drug taken. Hyperalertness, restlessness, seizures, dilated pupils, hypertension, arrhythmias, aggressive behavior, paranoia, and tachycardia are commonly seen.



Substance Abuse

Substance abuse is the use of drugs (substances) in a dose which is harmful to the consumer. These drugs alter the judgment, physical control, and perception of the individual beyond the therapeutic role of a drug. Use of such drugs leads to physical, psychological, financial, legal or social distress.

Substance Dependence

When individuals experience withdrawal symptoms in an effort to stop the drug usage, they have developed substance dependence.

Note: Substance dependence is substance abuse accompanied by tolerance, withdrawal, unsuccessful efforts to stop, or continued abuse despite awareness of having persistent problems related to use.

Epidemiology of Adolescent Substance Abuse

Alcohol, marijuana, tobacco, cannabis, cocaine, opioids, benzodiazepines, and barbiturates are the most commonly abused substances.

One study concludes **1/3rd of all 10th graders reported the use of illicit drugs in the past.**

There were 307,400 deaths from substance abuse in 2015 in the United States. Out of this number, 137,500 deaths were due to alcohol abuse and 122,100 due to opioids.

Comorbid mental health conditions are commonly seen in consumers of drugs and alcohol.

Substance abuse leads to issues like mental illness, social issues, violent behaviors, vehicle accidents, suicides, burglaries, assaults, rapes, child abuse and homicides.

Psychological disorders are likely to persist for a long time after detoxification.

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Individuals with substance abuse are more likely to have one of the following:

- Undiagnosed mental health problems
- Failure of individuals to recognize long-term consequences of using drugs
- Influence of peers
- Parental neglect
- Risk-taking behavior
- Struggle for autonomy

Risk factors

The National Institute of Drug Abuse (NIDA) released a report in 2003 titled "[Preventing Drug Use Among Children and Adolescents](#)" which focused on studying the most important risk factors for substance abuse in this age group.

- Exposure to drugs
- Poor socio-economic status
- Poor quality of parenting
- Peer-group influence or use of drugs by peers
- Family history of drug abuse which was given the term biological predisposition towards drug addiction
- Physical, emotional or sexual abuse during childhood
- Neglect

- Mental illness among household members

Being aware of these risk factors can help social workers and other healthcare professionals to identify adolescents who are at a higher risk of abusing drugs and offer appropriate help if needed.

Clinical presentation on drug abuse (eyes and pupil)

- Opioids such as heroin, methadone, fentanyl, and morphine cause miosis
- Stimulants such as amphetamines and cocaine cause mydriasis
- Phencyclidine results in rotatory nystagmus
- The pupillary response is sluggish in response to barbiturates

Clinical Features in Adolescent Substance Abuse

Alcohol abuse

- Disinhibition
- Slurred speech
- Constantly changing emotions
- [Ataxia](#)
- Blackouts

Abuse of marijuana

- Euphoria
- Red 1 March conjunctiva
- Increase in appetite
- Dry mouth
- Gynecomastia
- Impaired reaction time

Abuse of stimulants

- Agitation
- Hyper-alertness
- Restlessness
- Seizures
- Dilated pupils
- Hypertension
- [Arrhythmias](#)
- Aggressive behavior
- Paranoia
- [Tachycardia](#)

Abuse of opioids

- Drowsiness
- Flushing
- Euphoria
- Floating feeling
- Constipation

- Miosis
- Hypotension
- Respiratory depression

Abuse of hallucinogens

- Mydriasis
- Dizziness
- Xerostomia
- [High blood pressure](#)
- Uncoordinated movements
- Tachycardia
- Flushing
- [Psychosis](#)
- Paranoia
- Elevated temperature
- Increased sensual awareness
- Nausea
- Hallucination

Abuse of inhalants

- Sleepiness
- Lacrimation
- Rhinorrhea
- Headaches
- Dizziness
- Slurred speech
- Sleepiness
- Impaired memory
- Ataxia
- Irritation of mucous membrane

Screening and Assessment of Adolescent Substance Abuse

A CRAFFT Screening Test and the CAGE questionnaire are used for the screening of drug abuse in adolescents.

American Academy of Pediatrics' Committee on Substance Abuse recommends the use of the CRAFFT Screening Test in adolescents to identify the high-risk individuals and those who are already a victim of drug addiction.

Part A of the CRAFFT Screening Test **consists of 3 questions which evaluate the alcohol and drug abuse in the past year.** It has close-ended answers with either YES or NO.

CRAFT stands for 6 questions asked in part B of the assessment test.

C - Car

1. Have you ever ridden in a car driven by someone including yourself who was under the influence of drugs/alcohol, or had been using drugs or alcohol?

R - Relax

2. Have you ever used alcohol or drugs to relax or feel better?

A - Alone

3. Do you use alcohol or drugs when you are alone?

F - Forget

4. Have you been told by your friends and family to cut down on drinking or drug use?

T - Trouble

5. While using drugs or alcohol, have you ever got into trouble?

Each of these 5 questions is given a score of 1 if the response is YES. **A score of 2 or higher is an indication of high risk for substance abuse.**

The **CAGE questionnaire is specifically used in identifying alcoholism.** The suspected individuals are asked the following 4 questions:

1. Have you ever felt the need to cut down on drinking alcohol?
2. Have you been annoyed by people through criticism on your drinking?
3. Have you ever felt guilty regarding your drinking habit?
4. Have you ever felt the need to have a drink as an eye-opener in the morning?

Drinking behavior is likely to translate into alcohol abuse if the respondent gives more than 1 "YES" response.

Diagnostic Steps of Adolescent Substance Abuse

- Screening for mental health problems
- Interview questions, including the history of weight loss, insomnia, mood swings and academic performance
- CRAFT screening tool
- Physical exam findings
- **Urine and blood tests**
- **HIV testing**
- **STD testing**
- Drug testing if the patient is hospitalized

Prevention of Adolescent Substance Abuse

- For a prevention program to be effective in adolescents, it is essential to target multiple risk factors for an increased risk of problem drug abuse.
- Comprehensive personal and social skills training are important to develop resistance to abuse drugs in adolescents.

The role of the family and the community should not be ignored. NIDA reported the following recommendations for a successful prevention program of adolescent substance abuse:

Family prevention programs

Family bonding and instructing the family about appropriate tools of discipline are important for preventing substance abuse in the offspring. Identification of children who

are at high risk of abusing drugs in the future should be based on the NIDA risk factors for substance abuse in adolescents described above.

Community and school prevention programs

The incorporation of the school and the community is essential for the adequate prevention of substance abuse in children in the future. Schools should be educated about the symptoms and signs of substance abuse. Targeting high-school students with poor performance, depression, history of substance abuse, aggression or suicidal behaviors is successful in lowering the risk of problem drug use in the future.

The role of healthcare providers in the prevention of substance abuse

Currently, up to 70 % of primary healthcare providers do not inquire about substance abuse in adolescents. Screening for substance abuse in a high-risk adolescent should be provided by the primary healthcare provider.

References

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