

## Adolescent Substance Abuse — Risk Factors and Screening

[See online here](#)

**Substance abuse is the use of drugs for purposes that are harmful to the user and/or others. Up to one-third of adolescents are at risk of substance abuse, with a higher risk seen in those who are neglected, exposed to drugs by peers, of poor socioeconomic status, and who have a family history of drug abuse. Identification of these at-risk children is done using the CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble) screening tool or the CAGE (Cut, Annoyed, Guilty, Eye-opener) questionnaire. Clinical presentation of substance abuse 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 doses that are harmful to the user.** These drugs alter the judgment, physical control, and perception of the individual beyond the therapeutic role of a drug. Their use leads to physical, psychological, financial, legal or social distress.

# Substance Dependence

When individuals experience withdrawal symptoms in an effort to stop drug usage, they develop substance dependence. Substance dependence is substance abuse accompanied by tolerance, withdrawal, unsuccessful efforts to stop, or continued abuse despite awareness of the persistent problems related to use.

## Epidemiology

Alcohol, marijuana, tobacco, cannabis, cocaine, opioids, benzodiazepines, and barbiturates are the most commonly abused substances. One study concludes that **one-third of all 10th-grade students reported using illicit drugs.**

There were 307,400 deaths from substance abuse in 2015 in the United States. Of these, 137,500 were due to alcohol abuse and 122,100 to opioid use. Comorbid mental health conditions are commonly seen in abusers of drugs and alcohol.

**Substance abuse leads to issues such as mental illness, social issues, violent behavior, vehicle accidents, suicides, burglaries, assaults, rapes, child abuse, and homicides.**

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

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

### Individuals with substance abuse are more likely to:

- Have undiagnosed mental health problems
- Fail to recognize the long-term consequences of using drugs
- Be susceptible to negative influence of peers
- Suffer from parental neglect
- Engage in 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](#)" that focused on studying the most important risk factors for substance abuse in this age group. They include:

- Exposure to drugs
- Poor socioeconomic status
- Poor quality of parenting
- Peer-group influence or use of drugs by peers
- Family history of drug abuse (a biological predisposition to 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 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
- Increased appetite
- Dry mouth
- Gynecomastia
- Impaired reaction time

### Abuse of stimulants

- Agitation
- Hyperalertness
- 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

**The CRAFFT screening test and the CAGE questionnaire are used to screen for drug abuse in adolescents.** The American Academy of Pediatrics' Committee on Substance Abuse recommends the use of the CRAFFT screening test in adolescents to identify high-risk individuals and those who are addicted to drugs.

Part A of the CRAFFT screening test **consists of 3 questions that evaluate whether an individual has abused alcohol or drugs within the past year.** It comprises close-ended questions with either a yes or no answer.

Part B comprises 6 questions that make up the acronym in the test's name:

### **C: Car**

1. Have you ever ridden in a car driven by someone including yourself who was under the influence of drugs or 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: Friends**

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

**F: Forget**

5. Do you ever forget things you did while using alcohol or drugs?

**T: Trouble**

6. While using drugs or alcohol, have you ever gotten into trouble?

Each of these 6 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 used to identify a person's risk of alcohol abuse.** 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's criticism of your drinking?
3. Have you ever felt guilty about your drinking habit?
4. Have you ever felt the need to have a drink as an eye-opener in the morning?

## Diagnostic Steps of Adolescent Substance Abuse

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

## Prevention of Adolescent Substance Abuse

- For a prevention program to be effective in adolescents, it is important to target multiple risk factors.
- Comprehensive personal and social skills training can help adolescents develop resistance to the potential for drug abuse.

The role of the family and the community should not be overlooked. NIDA recommends the following steps for a successful prevention program of adolescent substance abuse.

### Family prevention programs

Family bonding and teaching the family about appropriate disciplinary techniques are important for preventing substance abuse in adolescents. 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

Enlisting the school and community in drug abuse prevention efforts is essential to help prevent substance abuse in children. Schools should be taught about the symptoms and signs of substance abuse. Targeting high school students with poor performance, depression, a history of substance abuse, aggression, or suicidal behaviors can help lower 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 done by their primary healthcare provider.

## References

Burke, P. J., Osullivan, J., & Vaughan, B. L. (2005). Adolescent Substance Use. *Pediatric Emergency Care*, 21(11), 770-776. <http://doi.org/10.1097/01.pec.0000186435.66838.b3>

Evans, K., & Sullivan, J. M. (2001). *Dual diagnosis: counseling the mentally ill substance abuser*(2nd ed.). New York: Guilford Press.

CAGE Alcohol Questionnaire. (2017). Retrieved March 14, 2018, from <https://psychology-tools.com/cage-alcohol-questionnaire/>

National Institute on Drug Abuse. (2016). Hallucinogens. Retrieved March 14, 2018, from <https://www.drugabuse.gov/publications/drugfacts/hallucinogens>

**Legal Note:** Unless otherwise stated, all rights reserved by Lecturio GmbH. For further legal regulations see our [legal information page](#).

Notes