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ADOLESCENT ALCOHOL AND SUBSTANCE USE AND ABUSE

Why Is It Important to Screen for Adolescent Alcohol and Substance Use?

Alcohol and substance use is associated with deaths, injuries, and health problems among US teenagers. Use is associated with leading causes of death, including unintentional injuries (eg, motor vehicle crashes), homicides, and suicides. More than 30% of all deaths from injuries can be directly linked to alcohol. Substance use also is associated with a wide range of non-lethal but serious health problems, including school failure, respiratory diseases, and high-risk sexual behaviors.

Alcohol and substance use is common among adolescents. Studies show that 46% of adolescents have tried alcohol by eighth grade, and by senior year in high school 77% of adolescents have begun to drink. Moreover, 20% of eighth graders and 58% of seniors have been drunk.

Adolescents have recently reported increasing misuse of prescription drugs, including psychostimulant medications and oral opioid analgesics.

Two factors can predict increases in the prevalence of use of specific illicit drugs.

- An increase in the perceived availability of the drug
- A decrease in the perceived risk of harm associated with use of the drug

Misuse of alcohol and drugs is found among all demographic subgroups. Higher risk of misuse is associated with being male, white, and from middle to upper socioeconomic status families.

Early age of first use of alcohol and drugs can increase the risk of developing a substance use disorder during later life.

Recurrent drunkenness, recurrent cannabis use, or any use of drugs other than cannabis are not normative behaviors, and health care practitioners should always consider them serious risks. However, experimentation with alcohol or cannabis or getting drunk once can arguably be considered developmentally normative behaviors.

When Should You Evaluate an Adolescent's Alcohol or Substance Use?

Substance use should be evaluated as part of an age-appropriate comprehensive history. Reviewing the adolescent's environment can identify risk and protective factors for the development of alcohol or drug abuse.

Risk Factors

- A family history of substance abuse or mood disorders. One in 5 children grows up in a household where someone abuses alcohol or other drugs. Substance use by a family member is associated with higher rates of substance use in adolescents.
- Poor parental supervision and household disruption are associated with involvement in substance use and other risk behaviors.
- Low academic achievement and/or academic aspirations.
- Untreated attention-deficit disorder (ADD) and attention-deficit/hyperactivity disorder (ADHD).

- Perceived peer acceptance of substance use and substance use in peers.

Protective Factors

- Parents who set clear rules and enforce them.
- Eating meals together as a family.
- Parents who regularly talk with their children about the dangers of alcohol and drug use.
- Having a parent in recovery.
- Involvement in church, synagogue, or community programs.
- Opportunities for prosocial involvement in the community, adequate community resources.

How Should You Evaluate an Adolescent's Alcohol or Substance Use?

Use Informal Methods

- Ask about alcohol and substance use. Many adolescents do not discuss their substance use with their physician. The most common reason given for not discussing substance use during a clinic visit was never being asked. Evidence shows that 65% of adolescents report a desire to discuss substance use during clinic visits.
- Begin with open-ended questions about substance use at home and school and by peers before progressing to open-ended questions about personal use. Two questions that can readily screen for the need to ask further questions include

  Have you ever had an alcoholic drink?

  Have you ever used marijuana or any other drug to get high?[1]
- Recognize the importance and complexity of confidentiality issues. Providing a place where the adolescent can speak confidentially is associated with greater disclosure of risk behavior involvement. Time alone with the physician during the clinic visit is associated with greater disclosure of sensitive information.

At the same time, the confidentiality of your conversation is limited by an adolescent's reports of threat to self, threat to others, and abuse. After reviewing the severity of an adolescent's substance use, you can judge the seriousness of a threat to self.

Discuss the need to disclose sensitive information with the adolescent before disclosing to parents or other people (treatment specialists, for example).

Use Screening Tools

The evidence supporting screening for substance misuse in adolescents is Type IV (Expert Opinion) because no clinical trials support the efficacy of screening during clinical encounters. However, several tools are available, and the CRAFFT screener (Boxes 1 and 2) has high sensitivities and specificities for identifying a diagnosis of substance problem use, abuse, or dependence.[2]

Consider using a pen and paper (GAPS screening tool, Problem-Oriented Screening Instrument for Teenagers [POSIT]) or computerized screening tool before clinic appointments.

Or use a structured interview designed to detect serious substance use in adolescents, such as the CRAFFT screener.

A positive CRAFFT should be followed by a more comprehensive alcohol and drug use history, including age of first use; current pattern of use (quantity and frequency); impact on physical and emotional health, school, and family; and other negative consequences from use (eg, legal problems).

Taking a good substance use history begins the process of therapeutic intervention. Helpful questions include

- What's the worst thing that ever happened to you while you were using alcohol or drugs?
- Have you ever regretted something that happened when you were drinking or taking drugs?
- Do your parents know about your alcohol and drug use? If so, how do they feel about it? If not, how do you think they would feel about it?
- Do you have any younger brothers or sisters? What do (or would) they think about your alcohol and drug use?

The assessment should also include a screening for co-occurring mental disorders and parent/sibling alcohol and drug use.

Box 1. The CRAFFT Screening Interview

Begin: "I'm going to ask you a few questions that I ask all my patients. Please be honest. I will keep your answers confidential."

Part A

During the PAST 12 MONTHS, did you:	**No**	**Yes**
1. Drink any alcohol (more than a few sips)? (Do not count sips of alcohol taken during family or religious events.)	☐	☐
2. Smoke any marijuana or hashish?	☐	☐
3. Use *anything else* to *get high*? ("anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff")	☐	☐

For clinic use only: Did the patient answer "yes" to any questions in Part A?

No ☐ → **Ask CAR question only, then stop**

Yes ☐ → **Ask all 6 CRAFFT questions in Part B**

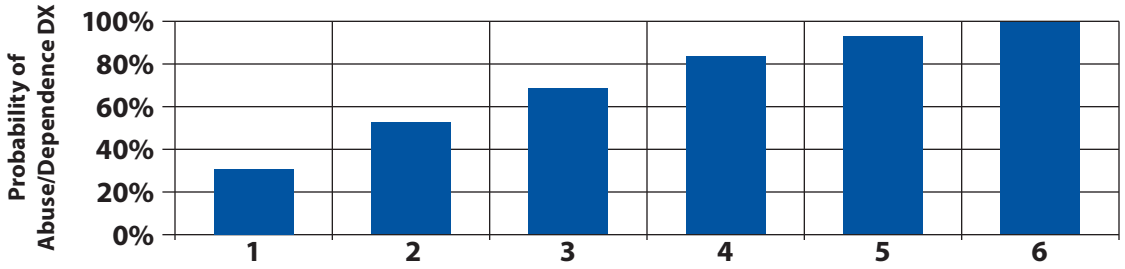
Part B

	No	**Yes**
1. Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	☐	☐
2. Do you ever use alcohol or drugs to **RELAX,** feel better about yourself, or fit in?	☐	☐
3. Do you ever use alcohol or drugs while you are by yourself, or **ALONE**?	☐	☐
4. Do you ever **FORGET** things you did while using alcohol or drugs?	☐	☐
5. Do your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?	☐	☐
6. Have you ever gotten into **TROUBLE** while you were using alcohol or drugs?	☐	☐

Table 2. The CRAFFT Screening Interview Scoring Instructions: For Clinic Staff Use Only

CRAFFT Scoring: Each "yes" response in **Part B** scores 1 point.
A total score of 2 or higher is a positive screen, indicating a need for additional assessment.

Probability of Substance Abuse/Dependence Diagnosis Based on CRAFFT Score[1,2]



DSM-IV Diagnostic Criteria[3] **(Abbreviated)**

Substance Abuse (1 or more of the following):

- Use causes failure to fulfill obligations at work, school, or home
- Recurrent use in hazardous situations (e.g. driving)
- Recurrent legal problems
- Continued use despite recurrent problems

Substance Dependence (3 or more of the following):

- Tolerance
- Withdrawal
- Substance taken in larger amount or over longer period of time than planned
- Unsuccessful efforts to cut down or quit
- Great deal of time spent to obtain substance or recover from effect
- Important activities given up because of substance
- Continued use despite harmful consequences

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1. Knight JR, Shrier LA, Bravender TD, Farrell M, Vander Bilt J, Shaffer HJ. A new brief screen for adolescent substance abuse. *Arch Pediatr Adolesc Med.* 1999;153(6):591–596
2. Knight JR, Sherritt L, Shrier LA, Harris SK, Chang G. Validity of the CRAFFT substance abuse screening test among adolescent clinic patients. *Arch Pediatr Adolesc Med.* 2002;156(6):607–614
3. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Text rev. Washington, DC: American Psychiatric Association; 2000.

What Should You Do With an Abnormal Result?

Assess the Level of Severity of Use

These abuse and dependence criteria are adapted from the *Diagnostic and Statistical Manual of Mental Disorders,* fourth edition.

- Experimentation: first use of psychoactive substance, most commonly alcohol, marijuana, or inhalants
- Non-problematic use: sporadic use, usually with peers and without negative consequences
- Problem use: adverse consequences first appear (eg, decline in school performance, suspension, accident, injury, arguments with parents or peers)
- Abuse: defined by one or more of 4 criteria occurring repeatedly over the course of the previous 12 months, but not meeting criteria for diagnosis of dependence
  - Substance-related problems at school, work, or home
  - Use of substance in hazardous situations (eg, driving a car)
  - Substance-related legal problems
  - Continued use despite problems or arguments with friends or family
- Dependence: defined by meeting any 3 of 7 criteria during the previous 12 months
  - Tolerance
  - Withdrawal, which may be either physiological or psychological
  - Using more of substance or for longer periods than intended
  - Unsuccessful attempts to quit or cut down use of substance
  - Spending a great deal of time obtaining, using, or recovering from effects of the substance
  - Giving up important activities because of substance use
  - Continued use of substance despite medical or social problems caused by the substance

Deliver a Therapeutic Intervention

Stage-specific goals are presented in the table below. See following text for specific interventions.

Stage	Intervention Goal
Abstinence	Positive reinforcement, anticipatory guidance
Experimentation	Education about risks
Non-problematic use	Risk-reduction advice (eg, driving/riding while impaired)
Problem use	Brief intervention (BI)—see below
Abuse	BI, outpatient counseling, follow-up
Dependence	Referral to intensive/residential treatment
Secondary abstinence	Positive reinforcement, support, follow-up

For those who are abstinent, provide positive reinforcement.

For those at the stages of experimentation and non-problematic use, it is most productive to focus on risk reduction:

- Begin a discussion of the serious risks associated with drinking and driving, or riding with an intoxicated driver.
- Suggest strategies for safe transportation home following events where alcohol or drugs are present.

For those at the stages of problematic use or abuse, office-based brief interventions have been shown to be effective among adults. Less is known about the effectiveness of these strategies among adolescents and among those who use drugs.

Most brief interventions include 6 key steps.

1. **Feedback:** Deliver feedback on the risks and/or negative consequences of substance use.
2. **Education:** Explain how substance use can lead to consequences that are relevant to the adolescent (ie, immediate rather than long-term consequences).

3. **Recommendation:** Recommend that your patient completely stop all use of alcohol and drugs for a specified time (eg, 3 months).
4. **Negotiation:** If your recommendation is declined, attempt to elicit some commitment to change. For example, try to have your patient commit to stopping drugs (if she or he refuses to stop drinking), or cutting back use of alcohol or drugs.
5. **Agreement:** Secure a specific, concrete agreement. Ask for a brief written contract that both of you will sign that specifies the change and the time.
6. **Follow-up:** Make an appointment for a follow-up meeting to monitor success (or need for more intensive treatment), and consider use of laboratory testing to verify abstinence.

Some adolescents, such as those with alcohol/drug dependence and co-occurring mental disorders, will require more directive intervention, parental involvement, and referral to intensive treatment.

Become familiar with treatment resources in your community. Adolescent-specific treatment is uncommon in many communities but, if possible, refer adolescents to programs that are limited to adolescents or have staff specifically trained in counseling adolescents.

Effective treatment programs should offer treatment for co-occurring disorders and include parents in treatment. These programs are offered on outpatient or inpatient basis.

- Outpatient treatment
  - Behavioral therapies: Individual, group, or family counseling. Cognitive behavioral therapy and multi-systemic family therapy appear promising.
  - Pharmacotherapies: Are seldom used in adolescents. Naltrexone appears promising for relapse prevention among adults with alcohol disorders
  - 12-step fellowships (eg, Alcoholics Anonymous). Adolescents may need an adult guide or temporary sponsor to make attendance at AA groups meaningful.
- Inpatient treatment
  - Detoxification: 2 to 3 days of medical treatment for physiological withdrawal symptoms, indicated only for acute management of alcohol, sedative-hypnotic, benzodiazepine, or opioid dependence.
  - Rehabilitation: 2 to 3 weeks of intensive behavioral therapy, usually including individual and group counseling, psycho-educational sessions, family therapy, and introduction to 12-step fellowships.
  - Long-term residential treatment: These include residential schools, therapeutic communities, and halfway houses. Most offer 3 to 12 months closely supervised aftercare (ie, following completion of a detoxification and/or rehabilitation program), which includes weekly counseling and group therapy, behavioral management strategies, and required attendance at school and/or work.
  - Unproven programs: Some families may choose to send their adolescent children to wilderness programs or "boot camps," which have not been scientifically evaluated.

ICD-9-CM Codes	
V70.3	School/sports physical
305.00	Alcohol abuse, unspecified
303.00	Alcohol intoxication, acute, unspecified
291.81	Alcohol withdrawal
303.91	Alcoholism, chronic, continuous
304.41	Amphetamine dependence, continuous
304.11	Barbiturate dependence, continuous
305.22	Cannabis abuse, episodic
304.31	Cannabis dependence, continuous
305.62	Cocaine abuse, episodic
304.21	Cocaine dependence, continuous
305.90	Drug abuse, unspecified
304.90	Drug dependence, unspecified
292.11	Drug-induced paranoia
292.0	Drug withdrawal
305.52	Opioid abuse, episodic
304.01	Opioid dependence, continuous
305.1	Tobacco abuse

The American Academy of Pediatrics publishes a complete line of coding publications, including an annual edition of *Coding for Pediatrics.* For more information on these excellent resources, visit the American Academy of Pediatrics Online Bookstore at **www.aap.org/bookstore/.**

What Results Should We Document?

Document the CRAFFT score, follow-up assessment, therapeutic intervention used, referrals made, and treatments received.

Resources

Scales

American Academy of Pediatrics Committee on Substance Abuse. Indications for management and referral of patients involved in substance abuse. *Pediatrics*. 2000; 106:143–148. http://aappolicy.aappublications.org/cgi/content/full/pediatrics;106/1/143 (see *DSM-IV* abuse and dependence criteria)

Screening Tools

A CRAFFT total score of 2 or higher has the following sensitivities and specificities for identifying a diagnosis of substance problem use, abuse, or dependence[2]:

- Any substance problem (problem use, abuse dependence): sensitivity: 0.76, specificity: 0.94, positive predictive value (PPV): 0.83, negative predictive value (NPV): 0.91
- Substance abuse or dependence: sensitivity: 0.80, specificity: 0.86, PPV: 0.53, NPV: 0.96
- Substance dependence: sensitivity: 0.92, specificity 0.80, PPV: 0.25, NPV: 0.99

GAPS Screening tool (public domain for clinical use) http://www.ama-assn.org/ama/pub/physician-resources/public-health/promoting-healthy-lifestyles/adolescent-health.shtml
This screener includes 6 forms (Younger Adolescent Questionnaire in English and Spanish, Middle-Older Adolescent Questionnaire in English and Spanish, and the Parent/Guardian Questionnaire in English and Spanish). Also see *AMA Guidelines for Adolescent Preventive Services (GAPS): Recommendations and Rationale*. The questionnaires and monograph are considered master copies that you can reproduce but not alter, modify, or revise without the expressed written consent of the Child and Adolescent Health Program at the American Medical Association.

Resources for Professionals

Web Sites

The Center for Adolescent Substance Abuse Research: http://www.ceasar-boston.org/

National Clearinghouse for Alcohol and Drug Information: http://www.health.org
(includes a special section for health professionals)

National Institute on Alcohol Abuse and Alcoholism: http://www.niaaa.nih.org

National Institute on Drug Abuse: http://www.nida.nih.gov

Articles

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Books

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Resources for Parents

Web Sites

A Family Guide To Keeping Youth Mentally Health and Drug Free: http://family.samhsa.gov/

Mothers Against Drunk Driving: http://www.madd.org

Parents: The Anti-Drug: http://www.theantidrug.com/

Partnership for a Drug Free America: http://www.drugfreeamerica.org

Books

Keeping Your Kids Drug Free: A How-to Guide for Parents and Caregivers: available online at http://ncadi.samhsa.gov/govpubs/phd884/

Keeping Youth Drug Free: available online at: http://ncadi.samhsa.gov/govpubs/phd711/

Treating Teens: A Guide to Adolescent Drug Programs. Washington, DC: Drug Strategies; 2003. http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/da/9a.pdf

Resources for Teens

Web Sites

Check Yourself: http://www.checkyourself.com

NIDA for Teens (National Institute on Drug Abuse): http://www.teens.drugabuse.gov/

Students Against Destructive Decisions: http://saddonline.com

What's Driving You? http://www.whatsdrivingyou.org/

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