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Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

Policy Statement—Alcohol Use by Youth and Adolescents: A Pediatric Concern

abstract

Alcohol use continues to be a major problem from preadolescence through young adulthood in the United States. Results of recent neuroscience research have substantiated the deleterious effects of alcohol on adolescent brain development and added even more evidence to support the call to prevent and reduce underaged drinking. Pediatricians should be knowledgeable about substance abuse to be able to recognize risk factors for alcohol and other substance abuse among youth, screen for use, provide appropriate brief interventions, and refer to treatment. The integration of alcohol use prevention programs in the community and our educational system from elementary school through college should be promoted by pediatricians and the health care community. Promotion of media responsibility to connect alcohol consumption with realistic consequences should be supported by pediatricians. Additional research into the prevention, screening and identification, brief intervention, and management and treatment of alcohol and other substance use by adolescents continues to be needed to improve evidence-based practices. *Pediatrics* 2010;125:1078–1087

COMMITTEE ON SUBSTANCE ABUSE

KEY WORDS
alcohol, substance abuse, adolescent brain development, advocacy

ABBREVIATIONS
DSM-IV-TR—*Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision*
ADHD—attention-deficit/hyperactivity disorder

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INTRODUCTION

Alcohol use and heavy drinking are common during adolescence and young adulthood, although the minimum legal drinking age across the United States is 21 years. Some individuals may start hazardous alcohol consumption earlier in childhood. The prevalence of problematic alcohol use continues to escalate into the late adolescent and young-adult age range of 18 to 20 years. Drinking by college-aged students remains a major issue. Results of recent research that have demonstrated that brain development continues well into early adulthood[1] and that alcohol consumption can interfere with such development[2,3] indicate that alcohol use by youth is an even greater pediatric health concern.

Use of alcohol at an early age is associated with future alcohol-related problems.[4–6] Data from the National Longitudinal Alcohol Epidemiologic Study[4] substantiated that the prevalence of both lifetime alcohol dependence and alcohol abuse show a striking decrease with increasing age at onset of use. For those aged 12 years or younger at first use, the prevalence of lifetime alcohol dependence was 40.6%, whereas those who initiated at 18 years was 16.6% and at 21 years was 10.6%. Similarly, the prevalence of lifetime alcohol abuse was 8.3% for those who initiated use at 12 years or younger, 7.8% for those who initiated at 18 years, and 4.8% for those who initiated at 21 years. The contribution of

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age at alcohol use initiation to the odds of lifetime dependence and abuse varied little across gender and racial subgroups in the study. Early alcohol initiation has been associated with greater sexual risk-taking (unprotected sexual intercourse, multiple partners, being drunk or high during sexual intercourse, and pregnancy)[7]; academic problems; other substance use; and delinquent behavior in mid- to later adolescence.[8] By young adulthood, early alcohol use is associated with employment problems, other substance abuse, and criminal and violent behavior.[8] Independent of genetic risk, exposure to alcohol or other drug use disorders of parents predicts substance use disorders in children.[9]

ALCOHOL USE, MISUSE, ABUSE, AND DEPENDENCE

Adolescent drinking behaviors cover the alcohol use spectrum, from primary abstinence to alcohol dependence. The *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision* (DSM-IV-TR)[10] defines alcohol abuse as a maladaptive pattern of use that leads to clinically significant impairment or distress, as manifested by 1 or more of the following within a 12-month period:

- recurrent alcohol use that results in a failure to fulfill major role obligations at work, school, or home;
- recurrent alcohol use in situations in which it is physically hazardous;
- recurrent alcohol-related legal problems;
- continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the alcohol; and
- the symptoms have never met the criteria for alcohol dependence.

Alcohol dependence is defined as a maladaptive pattern of use that leads to clinically significant impairment or distress, as manifested by 3 or more of the following within the same 12-month period:

- tolerance;
- withdrawal;
- alcohol is often taken in larger amounts or over a longer period than was intended;
- there is a persistent desire or unsuccessful efforts to cut down or control use;
- a great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects;
- important social, occupational, or recreational activities are given up or reduced because of use; or
- alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.

Because these diagnostic criteria were developed largely from research and clinical work with adults, there are limitations to applying these definitions to classify alcohol use and associated risks to adolescents.[11–13] As defined by the *DSM-IV-TR*, alcohol abuse or dependence may not have had time to develop in an adolescent, especially a younger one, and yet the adolescent may be engaging in very risky behavior. Applicability is also potentially limited in that several of the criteria, such as withdrawal, are not typically experienced by adolescents, and other criteria, such as tolerance, have low specificity for adolescents. Tolerance can be anticipated as a developmental process that will occur over time in most adolescents who drink.[11]

Alcohol misuse can be defined as "alcohol-related disturbances of behavior, disease, or other consequences that are likely to cause an individual, his/her family, or society harm now or in the future."[14] Because the term "alcohol misuse" encompasses earlier stages of problematic alcohol use as well as alcohol dependence that do not meet diagnostic criteria, it may be a more useful concept clinically in pediatrics and when developing alcohol use primary prevention programs for youth.

In examining the use of drugs by US youth, the annual Monitoring the Future Study (sponsored by the National Institute on Drug Abuse and implemented by the University of Michigan)[15] has consistently reported that the drug most commonly used by youth is alcohol, exceeding the use of tobacco and illicit drugs. The 2009 survey of more than 46 000 8th-, 10th-, and 12th-grade students in more than 380 schools nationwide revealed that the prevalence of alcohol use in the previous 30 days had declined by more than one-third since most recently peaking in 1996 but that less of a decline was found for older students. The prevalence of being drunk at least once in the previous month was 5.4% for 8th-graders, 15.5% for 10th-graders, and 27.4% for 12th-graders. Prevalence of use in the previous 30 days of the relatively new flavored alcoholic beverages, also known as "alcopops" or "malternatives," decreased somewhat since initial inclusion in this survey in 2004. Alcopop use in the previous 30 days was reported by 9.5% of 8th-graders, 19.0% of 10th-graders, and 27.4% of 12th-graders in 2009. Recent "binge-drinking," defined as the consumption of 5 or more drinks in a row on at least 1 occasion in the previous 2 weeks, has continued at a relatively stable level, with 7.8% of 8th-graders, 17.5% of 10th-graders, and 25.2% of 12th-graders reporting this activity. Since the start of this century, more than 90% of 12th-graders have reported that alcohol is "fairly easy" or "very easy" to get, and more than 60% of 8th-graders say the same. These

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epidemiologic statistics are corroborated by data reported from 2 other large surveys of youth alcohol use in the United States: the Youth Risk Behavior Survey[16] of the Centers for Disease Control and Prevention and the National Survey on Drug Use & Health (formerly the National Household Survey).[17]

HAZARDS OF USE OF ALCOHOL

When compared with use by adults, alcohol use by adolescents is much more likely to be episodic (binge) and heavy, which makes alcohol use by those in this age group particularly dangerous. Rapid binge-drinking, possibly related to a bet or dare, puts the teenager at even higher risk of alcohol overdose or alcohol poisoning, in which suppression of the gag reflex and respiratory drive can be fatal. The adult definition of binge-drinking (the consumption of 5 or more drinks in a row over approximately a 2-hour period) is often also used to describe adolescent or young-adult alcohol use. Recent literature, however, suggests that for 9- to 13-year-old children and girls aged 14 to 17 years, binge-drinking should be defined as 3 or more drinks. For boys, binge-drinking should be defined as 4 drinks or more for those aged 14 or 15 years and 5 or more drinks for those aged 16 or 17 years.[18]

Alcohol use is the primary contributor to the leading causes of adolescent death (ie, motor-vehicle crashes, homicide, and suicide) in the United States.[19] Motor-vehicle crashes rank as the top cause of death for US teenagers and young adults. The Youth Risk Behavior Survey in 2007 revealed that during the 30 days preceding the survey, 29.1% of students nationwide had ridden 1 or more times in a car or other vehicle driven by someone who had been drinking alcohol, and 10.5% of students had driven a car or other vehicle at least once when they had been drinking alcohol.[16] The impressive relationship of alcohol use and motor-vehicle crashes involving youth is also highlighted by the fact that after the legal drinking age was changed uniformly to 21 years across the United States, the number of motor-vehicle fatalities in individuals younger than 21 years significantly decreased.[20] Teenagers drink and drive less frequently than do adults, but their motor-vehicle crash risks are higher than those of adults when they do drink, especially at low and moderate blood alcohol concentrations.[21]

Lower minimum legal drinking ages in the United States have also been associated with higher youth suicide rates.[22] The research literature consistently reports the association of alcohol use or abuse with other risk-taking behaviors, including assault, sexual risk-taking, and other drug use.[12,13,23,24] Thus, alcohol use by adolescents is not safe, even when they are not driving.

Alcohol misuse and alcohol use disorders in adolescents are associated with many other mental and physical disorders. Alcohol use disorders are a risk factor for suicide attempts.[25] Psychiatric conditions most likely to co-occur with alcohol use disorders include mood disorders, particularly depression; anxiety disorders; attention-deficit/hyperactivity disorder (ADHD); conduct disorders; bulimia; and schizophrenia.[23] Associated physical health problems include trauma sequelae,[26] sleep disturbance, modestly elevated serum liver enzyme concentrations, and dental and other oral abnormalities,[27] despite relatively few abnormalities being evident on physical examination.[27,28]

FACTORS THAT CONTRIBUTE TO HAZARDOUS USE

Genetic and Familial Factors

Twin studies in adult populations have consistently demonstrated genetic influences on use and abuse of alcohol,[29–31] but less research has examined genetic influences on the adolescent age range.[32–34] Through a sibling/twin/adoption study of adolescents, Rhee et al[35] examined the relative contribution of genetics and environment on initiation, use, and problem use of substances. The results of this study demonstrated that for adolescents, compared with adult-twin study findings, the magnitude of genetic influences was higher and that of shared environmental influences was lower for problem alcohol or drug use than for initiation of use.

Families play an important role in the development of alcohol and other drug problems in youth. Drug use by parents or older siblings and permissive parental attitudes toward drug use by young people predict greater risk of youth drug and alcohol use.[36,37] Both parental monitoring of children's use and the convincing conveyance of household rules governing use aid in deterring alcohol use among youth.[38,39] In the United States, 7 million children younger than 18 years are children of alcoholic parents. Children of alcohol abusers are at increased risk of many behavioral and medical problems, including delinquent behavior, learning disorders, ADHD, psychosomatic complaints, and problem drinking or alcoholism as adults.[40]

Other Factors

Having friends who use alcohol, tobacco, or other substances is one of the strongest predictors of substance use by youth. Patterns of use in the community also predict individual substance use behaviors. Rates of use are higher in communities in which alcohol and other drugs are less expensive and easily obtainable. Other risk factors for substance abuse include poor school performance, untreated ADHD, and conduct disorder.[36]

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Media influences on the use of alcohol by young people are substantial. Jernigan et al[41] examined boys' and girls' exposure to magazine advertising for alcohol compared with that of legal-aged adults and found that underaged youth saw 45% more beer and ale ads, 12% more distilled-spirit ads, and 65% more low-alcohol refresher beverage ads (for alcopops or lemonades, iced teas, or fruity beverages containing alcohol) as well as 69% less wine advertising than did people aged 21 years or older. Exposure to alcohol advertising was greater for girls than for boys. Other media, such as television, movies, billboards, and the Internet, are known to be very influential in promoting alcohol use through attractive portrayals of use without associated negative consequences. Considerable research has shown that media exposure can make children and adolescents more likely to experiment with alcohol.[42,43]

ADOLESCENT DEVELOPMENTAL AND NEUROBIOLOGICAL FACTORS

Over the past decade, great strides have been made in understanding the neurobiological basis of addiction. Studies investigating normal brain development have yielded information that elucidate the effects of alcohol and other drugs on the adolescent brain. As summarized by Sowell et al,[44] results of postmortem studies have shown that myelination, a cellular maturational process of the lipid/protein sheath of nerve fibers, begins near the end of the second trimester of fetal development and extends well into the third decade of life and beyond. Autopsy results have shown both a temporal and spatial systematic sequence of myelination, which progresses from inferior to superior and posterior to anterior regions of the brain. This sequencing results in initial brain myelination occurring in the brainstem and cerebellar regions and myelination of the cerebral hemispheres and frontal lobes occurring last. Converging evidence from electrophysiological and cerebral glucose-metabolism studies has revealed relatively late frontal lobe maturation, and results of neuropsychological studies have shown that performance on tasks that involve the frontal lobes continues to improve into adolescence.

Sowell et al[44] documented reduction in gray matter in the regions of the frontal cortex between adolescence and adulthood, which probably reflects increased myelination in the peripheral regions of the cortex. Gray-matter loss, with pruning and elimination of neural connections during normative adolescent development, seems to reflect a sculpting process that turns the immature brain into a mature one.[45] These changes are thought to improve cognitive processing in adulthood. Results of neuropsychological studies have shown that the frontal lobes are essential for functions such as response inhibition, emotional regulation, planning, and organization, all of which may continue to develop between adolescence and young adulthood. Conversely, parietal, temporal, and occipital lobes show little change in maturation between adolescence and adulthood. Parietal association cortices are involved in spatial relationships and sensory functions, and the lateral temporal lobes are associated with auditory and language processing, and these functions are largely mature by adolescence. Hence, the observed patterns of brain maturational changes are consistent with cognitive development.[44] Connections are being fine-tuned in adolescence with the pruning of overabundant synapses and the strengthening of relevant connections with development and experience. It is likely that the further development of the prefrontal cortex aids in the filtering of information and suppression of inappropriate actions.[45]

The effects of alcohol and other drugs on the adolescent brain are probably multiple, because the immaturity or plasticity of the brain developmental processes likely confers greater vulnerability to both the toxic and the addictive actions of drugs, and drug use itself may directly affect brain development. The use of alcohol and drugs during early adolescence, coupled with genetic predisposition to substance abuse and addiction, may increase the magnitude of risk-taking during adolescence. All substances of abuse that lead to dependence share 2 common effects during withdrawal: a decrease in dopamine 2 (D_2) receptors (which can lead to tolerance) and hypofunctioning of the prefrontal cortex. The effects of drugs and alcohol on an immature prefrontal cortex may increase the incentive to seek substances of abuse, especially to decrease the effects that are felt during withdrawal.[46,47] Continued use may impair an already immature prefrontal cortex and further affect decision-making once substance use begins.

Results of developmentally focused research on how alcohol affects the adolescent brain have started to demonstrate that adolescents with an alcohol use disorder use fewer strategies to learn new information and demonstrate significantly reduced memory skills that continue to deteriorate with continued alcohol use. In neuroimaging studies of patients with adolescent-onset alcohol use disorders, reduced hippocampal volumes and subtle white-matter abnormalities have been documented.[3] Research continues to explore these brain developmental processes that may confer greater vulnerability to the addictive actions of drugs, including alcohol.[2]

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NATIONAL CALL TO PREVENT AND REDUCE UNDERAGED DRINKING

In 2007, *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*[48] was issued after being developed in collaboration with the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the Substance Abuse and Mental Health Services Administration (SAMHSA). This call to action identified 6 goals:

- Foster changes in American society that facilitate healthy adolescent development and that help prevent and reduce underaged drinking.
- Engage parents and other caregivers, schools, communities, all levels of government, all social systems that interface with youth, and youth themselves in a coordinated national effort to prevent and reduce underaged drinking and its consequences.
- Promote an understanding of underaged alcohol consumption in the context of human development and maturation that takes into account individual adolescent characteristics as well as environmental, ethnic, cultural, and gender differences.
- Conduct additional research on adolescent alcohol use and its relationship to development.
- Work to improve public health surveillance on underaged drinking and on population-based risk factors for this behavior.
- Work to ensure that policies at all levels are consistent with the national goal of preventing and reducing underaged alcohol consumption.

The Surgeon General's report outlined specific strategies for implementing these goals, including recommendations for parents and other caregivers; schools, colleges, and universities; communities; the criminal and juvenile justice systems and law enforcement; entertainment and media industries; the health care system; professional health care associations; and governments and policy makers.

ROLE OF THE PEDIATRICIAN

Pediatricians and other health care providers who care for children and adolescents should help prevent, identify, and treat alcohol and other substance use by youth. The American Academy of Pediatrics guidelines for the health care of children and adolescents recommend that pediatricians discuss substance use as part of anticipatory guidance and preventive care.[49] Because of their understanding of family dynamics and long-standing relationships with families, pediatricians can identify substance-abusing families and facilitate their care.[50] Pediatricians can be involved in the primary prevention of alcohol misuse through educational and psychological interventions with youth. Although evaluation of such programs has revealed many methodologic weaknesses, there is some evidence to support the effectiveness of family-focused prevention programs and culturally focused skills training in the long-term prevention of alcohol misuse.[14] Pediatricians should support parenting programs that have been shown to reduce or prevent substance use by youth. The most effective programs emphasize active parental involvement and have components that emphasize development of social skills and promote a sense of personal responsibility among young people, as well as address issues related to substance abuse.[51] Pediatricians also have an important advocacy role in health systems' changes as well as legislative efforts, such as increasing alcohol taxes,[52] resisting efforts to weaken minimum-drinking-age laws, and implementing graduated-driver licensing.[21] A recent Cochrane review showed implementation of graduated-driver licensing to be effective in reducing the crash rates of young drivers and, specifically, alcohol-related crashes in most studies in the United States and internationally.[53]

The American Academy of Pediatrics recommends that pediatricians routinely screen and evaluate youth for substance use and provide office interventions and referrals for patients who are using alcohol or other substances.[49] The American Medical Association *Guidelines for Adolescent Preventive Services (GAPS)*[54] and the American Academy of Pediatrics *Bright Futures* guidelines[55] recommend that pediatricians and other health care providers who work with children and adolescents conduct routine annual substance use screening of all adolescents and use brief intervention techniques as indicated. In addition, it is recommended that pediatricians be familiar with community resources and refer patients with problematic use or a substance use disorder for treatment.[56] Despite these recommendations, primary care providers have reported many barriers to implementing alcohol and other drug use screening as a routine. Barriers to such screening have been identified to include insufficient time, lack of training to manage a positive screening, the need to triage competing medical problems, lack of treatment resources, tenacious parents who will not leave the examination room, and unfamiliarity with screening tools.[57]

Brief screening surveys for adolescent substance use are available and include the Alcohol Use Disorders Identification Test (AUDIT) developed by the World Health Organization,[58] the Problem Oriented Screening Instrument for Teenagers (POSIT) substance use/abuse scale developed by the National Institute on Drug Abuse,[59] and the CRAFFT instrument, a 6-question, developmentally appropriate screening tool developed by Knight et al (see Table 1).[60] Although all 3 of these tools

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TABLE 1 CRAFFT Questions: A Brief Screening Test of Adolescent Substance Abuse

C	Have you ever ridden in a car driven by someone (including yourself) who was "high" or had been using alcohol or drugs?
R	Do you ever use alcohol or drugs to relax, feel better about yourself, or fit in?
A	Do you ever use alcohol or drugs while you are by yourself, alone?
F	Do you ever forget things you did while using alcohol or drugs?
F	Do your family or friends ever tell you that you should cut down on your drinking or drug use?
T	Have you ever gotten into trouble while you were using alcohol or drugs?

Two or more yes answers suggest a significant problem, abuse, or dependence. The CRAFFT questions were developed with grant support from the Robert Wood Johnson Foundation, the National Institute on Alcohol Abuse and Alcoholism, and the Substance Abuse and Mental Health Services Administration.

have acceptable sensitivity for identifying alcohol problems or disorders in 14- to 18-year-old adolescents,[61] the CRAFFT instrument has emerged as a quick, validated, reliable, and easy-to-use screening tool that can be administered in the primary care setting in verbal or written format and has good discriminative properties for determining substance use disorders in adolescents.[62] Test-retest reliability of the CRAFFT has been shown to be high, especially when the questions are prefaced with the phrase "in the past year" when office-based screening is performed.[63] Recently, the CRAFFT tool use was integrated into an adolescent substance use screening, brief intervention, and referral-to-treatment algorithm and tool kit to augment pediatricians' confidence and ability in responding effectively to screening results.[64]

More research is still needed to aid in developing brief intervention strategies (ie, short, efficient, office-based techniques) that health care providers who work with adolescents can use to detect and intervene with alcohol misuse. Motivational interviewing is one of the most promising brief intervention strategies that can be used in an office-based setting.[65] Motivational interviewing is a patient-centered, directive counseling style that builds on the intrinsic motivation of an individual. When conducting a motivational interview, the pediatrician or counselor creates a partnership with the adolescent patient to explore and resolve his or her ambivalence about behavioral change. Motivational interviewing is often associated with the transtheoretical model described by Prochaska and DiClemente,[66] who identified what they called "stages of change," a continuum of readiness to change behavior. In this model, change is facilitated by matching the counseling strategy to the stage of patient readiness to change behavior. The essential spirit of motivational interviewing comprises 3 elements: collaboration, or forming a partnership with the patient; evocation, or using open-ended questions and reflections to help the patient determine his or her own motivation to change; and autonomy, or accepting that it is the adolescent's responsibility to change his or her behavior and decide how the change will occur and that direct persuasion by a pediatrician or counselor is unlikely to be effective. Expressing empathy, developing discrepancy between goals and current behavior, "rolling" with the resistance a patient may have (ie, avoiding arguing for change), and supporting patient self-efficacy are the 4 principles of motivational interviewing.[67]

Results of research have shown that motivational interviewing as a counseling style has been effective in decreasing alcohol use in both younger and older adolescents.[68–71] The authors of a recent Cochrane review of primary prevention for alcohol misuse by young people noted that, although much research investigating the effectiveness of alcohol interventions was of poor quality, there was "strong design and consistent pattern of results indicating potential value of motivational interviewing."[14] Further research is indicated to improve all aspects of adolescent substance abuse intervention and treatment.[72]

Specific recommendations regarding the best management tools and techniques for treatment will be available in a forthcoming statement from the American Academy of Pediatrics on substance use screening, brief intervention, and referral to treatment for pediatricians. For more information, please see the resources listed at the end of this statement.

RECOMMENDATIONS

Pediatricians and other health care providers who work with children and adolescents are recommended to:

1. Become knowledgeable about all aspects of adolescent alcohol, tobacco, and other substance use through participation in training-program curricula and/or continuing medical education that provide current best-practices training, including media-literacy training.
2. Obtain a complete family medical and social history at prenatal and health supervision visits to explore potential genetic and family influences regarding alcohol and other substance use.
3. Recognize risk factors for alcohol (as well as other drug) use among youth and be aware of coexisting mental health problems, such as depression, that may occur in this age group.
4. Regularly screen for current alcohol (as well as other drug) use by adolescents and young adults by using nonjudgmental, validated screening methods and appropriate confidentiality assurances.

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5. Assess patients whose screening results are positive for alcohol use to determine the appropriate level of intervention.
6. Use brief intervention techniques in the clinical setting and be familiar with motivational interviewing techniques to work with patients who use alcohol but do not meet criteria for immediate referral. Offer referral to treatment when indicated.[73]
7. Discuss the hazards of alcohol and other substance use with patients as part of anticipatory guidance and patient/parent education at health supervision visits as well as when relevant at acute-problem visits. Anticipatory guidance aligned with key school calendar events, such as proms and graduation, may be especially meaningful.
8. Strongly advise against the use of alcohol, tobacco, and other illicit drugs by youth.
9. Encourage parents to be good role models for healthy life choices and never allow underaged drinking at their home or other property. Empower parents with the realization that their involvement with their adolescents is a powerful deterrent of substance abuse.
10. Be familiar with local resources to which various pediatric-aged patients with alcohol use disorders, their parents, and other family members can be referred for developmentally appropriate treatment.
11. Support adolescents with substance use disorders throughout and after their treatment.
12. Serve as a resource and support for school and other community-based alcohol use prevention programs.
13. Support advocacy efforts to promote appropriate media modeling of alcohol consumption and consequences, including print media, television, film, and the Internet.
14. Support advocacy efforts to promote legislation that reduces alcohol-related morbidity and mortality, such as graduated-driver licensing; treatment parity from third-party payers; legal ramifications for parent sponsorship of adolescent drinking; increased alcohol excise taxes; and other prevention and treatment policies recommended in the Surgeon General's call to action.[48]
15. Support continuation of the age of 21 as the minimum legal drinking age, and support enforcement that decreases access to alcohol for minors.
16. Support further research into prevention, evidence-based screening and identification, brief intervention, and management and treatment of alcohol and other substance use by adolescents.

RESOURCES

AAP Resources

Alcohol: Your Child and Drugs (patient education brochure)

Join Together (www.jointogether.org)

Parent-Teen Driving Agreement and a Message to Parents of Teen Drivers (patient education brochure)

Substance Abuse Prevention (patient education brochure)

Tobacco, Alcohol, and Other Drugs: The Role of the Pediatrician in Prevention, Identification, and Management of Substance Abuse[49] (policy statement)

Tobacco as a Substance of Abuse (technical report from Sims TH and Committee on Substance Abuse). *Pediatrics*. 2009;124(5):e1045–e1053

Suggested Internet Resources

AAP District II, New York Chapter 2, Committee on Youth and Adolescence. Teen Parties in Your Home: A Guide for Parents

www.ny2aap.org/teenparties.pdf

Al-Anon/Alateen

www.al-anon.alateen.org

American Council for Drug Education

www.acde.org

American Medical Association

Office of Alcohol and Other Drug Abuse

National Office of the Robert Wood Johnson Foundation

Helping Patients Who Drink Too Much: A Clinician's Guide

http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/guide.pdf

College Drinking—Changing the Culture

www.collegedrinkingprevention.gov

Monitoring the Future Study

www.monitoringthefuture.org

National Institute on Alcohol Abuse and Alcoholism

www.niaaa.nih.gov

National Survey on Drug Use & Health (formerly the National Household Survey on Drug Abuse)

www.oas.samhsa.gov/nhsda.htm

Partnership for a Drug-Free America

www.drugfree.org

US Department of Health and Human Services and the Substance Abuse and Mental Health Services Administration's National Clearinghouse for Alcohol and Drug Information

http://ncadi.samhsa.gov

Self-help and Advocacy Group Resources

Alcoholics Anonymous–Alcoholics Anonymous World Services, Inc

PO Box 459

New York, NY 10163

Telephone: 212-870-3400

www.alcoholics-anonymous.org

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Mothers Against Drunk Driving (MADD)

National Headquarters

Victim Assistance and Book Orders

511 E John Carpenter Freeway, Suite 700

Irving, TX 75062

Telephone: 214-744-6233

www.madd.org

Narcotics Anonymous World Services, Inc.

Main Office

PO Box 9999

Van Nuys, CA 91409

Telephone: 818-773-9999

Fax: 818-700-0700

www.na.org

WSO-Europe

48 Rue de l'Été/Zomerstraat

B-1050 Brussels, Belgium

Telephone: 32-2-646-6012

Fax: 32-2-649-9239

www.na.org

National Clearinghouse for Alcohol and Drug Information

PO Box 2345

Rockville, MD 20847-2345

Telephone: 800-729-6686 (toll-free), 301-468-2600 (local), 811-767-8432 (in Spanish), or 800-487-4889 (TDD)

Fax: 301-468-6433

http://ncadi.samhsa.gov

Students Against Destructive Decisions (formerly Students Against Drunk Driving) (SADD)

SADD National

255 Main St

Marlborough, MA 01752

Telephone: 877-SADD-INC (877-723-3462)

Fax: 508-481-575

www.sadd.org

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COMMITTEE ON SUBSTANCE ABUSE

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