



Promoting Safety and Injury Prevention

Theme 9

PROMOTING SAFETY
AND INJURY PREVENTION

INTRODUCTION

Ensuring that a child remains safe from harm or injury during the long journey from infancy through adolescence is a constant task that requires the participation of parents and the many other adults who care for and help to raise children, and, of course, of the children themselves. Health care professionals have long recognized the importance of safety and injury prevention counseling as a tool to help educate and motivate parents in keeping their children safe. Many professional societies have bolstered these efforts by recommending guidance to prevent injuries.¹⁻⁵

Safety and injury prevention is a topic area that covers a wide array of issues for infants, children, and adolescents. These issues can be grouped into 2 general categories:

- **Unintentional injury** continues to be the leading cause of death and morbidity among children older than 1 year, adolescents, and young adults. Although motor vehicle crashes cause the highest number of injuries, childhood injuries result from a myriad of causes, including falls, burns, firearms, recreational activities, and sports.

Unintentional injuries take an enormous financial, emotional, and social toll on children and adolescents, their families, and society as a whole. Although

the word *accident* is familiar, the word *injury* is preferred because it connotes the medical consequences of events that are both predictable and preventable.⁶ The causes of unintentional injury-related illness and death vary according to a child's age, gender, race, geographic region, and socioeconomic status and are dependent upon developmental abilities, exposure to potential hazards, and parental perceptions of a child's abilities and the injury risk. Younger children, males, minorities, adolescents, and children who live in poverty are affected at disproportionately higher rates.⁷

- **Intentional injury**, which results from behaviors that are designed to hurt oneself or others, is a multifaceted social problem and a major health hazard for children and youth. Homicide and suicide are particularly important for the health care professional to consider because their frequency increases as children grow older. Among 1- to



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21-year-olds, homicide is the second-leading cause of death, and suicide is the third-leading cause of death.⁷ Intentional injuries cover a wide array of mechanisms, and the impact on children is great, no matter whether the violence is directly experienced, as in a youth attempting suicide, or is witnessed, as at home, in the community, or in the media. The association of early childhood exposure to violence and subsequent violent behaviors has been established.⁸ The prevention of violence in all its forms, therefore, follows a developmental trajectory, beginning with infancy. To provide appropriate guidance and counseling, health care professionals need to be alert to the possible presence of violence in a family or to the effect of a violent environment on a child.

Safety and injury prevention are discussed in greater detail in the remainder of this themed section. Guidance on interventions and strategies to ensure safety and prevent injuries targets 3 domains: (1) the development and age of the child, (2) the environment in which the safety concern or injury takes place, and (3) the circumstances surrounding the event. The health supervision visit provides a venue to assess the parents' and the child's current safety strategies, encourage and praise their positive behaviors, provide guidance about potential risks, and recommend participation in community interventions to promote safety.

The health supervision visit also is a good venue in which to review emergency and disaster preparedness measures.⁹ Information on handling emergencies, how to access local emergency care systems, and cardiopulmonary resuscitation (CPR) and first aid can be made available to all parents.

Health care professionals can suggest that parents do the following:

- Complete an American Heart Association or American Red Cross First Aid and CPR program.
- Have a first aid kit and know the local emergency telephone numbers. The national number for the National Poison Control Center is 800-222-1222.
- Know when to call a health care professional. (*Counsel parents to call whenever they are not sure what to do.*)
- Know when to go to the emergency department. (*Counsel parents on when to call 911.*)

Child Development and Safety

Ensuring safety and preventing injuries must be an ongoing priority for parents as their children progress from infancy through adolescence. However, the nature of their efforts evolves over time. Safety issues in infancy relate primarily to the infant's environment and interactions with parents. Parents must modify the environment to prevent suffocation, motor vehicle-related injuries, falls, burns, and other hazards. A young child's emerging independence and rapidly increasing mobility presents new safety and injury prevention challenges and necessitates further environmental modifications, or "child-proofing." Parents of young children often underestimate the level of the child's motor skill development (eg, age of ability to climb) and overestimate their cognitive and sensory skills (eg, assessing the speed of an oncoming car). Integrating injury prevention counseling with developmental and behavioral discussions when talking with the family can be an effective method of delivering this important information.

The middle childhood years are a period during which safety challenges at home

begin to be augmented by those outside the home (eg, at school, in sports, and with friends). During middle childhood, increasing independence allows the child to broaden his world beyond that of the immediate family. This requires good decision-making skills to stay safe and reduce the risk of injury. During adolescence, decision making about safety shifts to choices the adolescent makes about his activities, behavior, and environment.

Parents have an important role to play in keeping their children and adolescents safe through maintaining open lines of communication, balancing strong support with clear limits, and close monitoring. Strong support and close monitoring by parents have been linked with positive outcomes in children regardless of race, ethnicity, family structure, education, income, or gender.¹⁰ Health care professionals can help parents foster openness, encourage communication with their child, and address concerns when they arise. When a risky behavior is identified, counseling can be directed toward helping the parent and child with strategies to reduce or avoid the risk, such as using appropriate protective gear (eg, seat belts, helmets, hearing protection, and sports equipment), not riding in a car or boat with someone who has been drinking, and ensuring that guns are inaccessible to children. Parents should be alert to unusual changes in behavior, such as sleep disturbances, withdrawal, aggression, sudden isolation from peer groups, or the need for unusual or extreme privacy, which can indicate that a child or adolescent is involved in high-risk situations. Risk reduction counseling is most likely to be effective when it is used in a repetitive, multi-setting approach, rather than being isolated in the medical office.¹¹ Partnering with the parent and sharing strategies for how to promote positive youth development, address strengths, and reduce risk-taking behaviors is an important collaborative approach as parents gradually decrease their supervisory responsibilities

and help their child transition to young adulthood.

Families and Culture in Safety and Injury Prevention

Parents often feel challenged as they try to set priorities among the many health and safety messages that are given to them by the medical community. For some families, these messages may conflict with their cultural or personal beliefs and may result in parents disregarding the health and safety recommendations. Examples include bed sharing or the use of a car safety seat. In addition, certain culturally derived medical or alternative health practices may place children at risk of injury. Cultural or gender roles, in which women are not able to tell men in the household what to do, may limit their ability to enact a safety measure. In some communities, cultural beliefs dictate that the mother or parents are not the primary decision makers or caregivers for their young children. Acknowledging the influential roles that older women (eg, grandmothers or mothers-in-law) and other elders and spiritual leaders play in guiding child care practices is key to the effective delivery of safety, injury prevention, and health promotion messages. Health care professionals should be sensitive to these cultural perspectives and alert to any potential health and safety issues that may influence the child and family. Helping parents devise alternative safety approaches may be a useful discussion topic during anticipatory guidance.

The health care professional has the dual role of helping families set priorities among the health and safety messages in the context of the child's health, developmental age, and family circumstances, as well as assisting families in implementing these recommendations within their own cultural framework. The health care professional also should recognize when health and safety information is ineffective because of cultural differences in beliefs about the care of the child. A

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familiarity with local community public health services and state and local resources is critical to tailoring information and care recommendations to best suit the needs of the child and family. Rather than giving a parent or child an absolute requirement, the health care professional might consider where an appropriate adaptation or modification can be made to accommodate cultural and family circumstances.

Economic circumstances often affect parents' ability to alter their home to create a safer environment for their child. Children who live in poverty often live in substandard, crowded homes, in unsafe neighborhoods, and may be exposed to environmental pollution. Their parents often experience poor health, economic stresses, and discrimination. These families are least able to make the changes they want and need in their homes and communities. (For more information on this topic, see the Promoting Family Support theme.) Health care professionals should be aware of housing codes that govern safety issues (eg, hot water, window guards, and lead paint). Access to legal services for families who live in poverty has brought improvements to child health and safety. In addition, low-income families, who are least likely to be able to afford injury prevention devices, may require assistance to overcome cost barriers. Community-based injury prevention interventions are effective and are models of community partnership. (For more

information on this topic, see the Promoting Community Relationships and Resources theme.) These programs can address cultural beliefs, income barriers, and community norms to assist families to implement safety interventions, especially those that have been shown to reduce injuries (eg, car safety seats, bike helmets, smoke detectors, and window guards). Community-based interventions are more likely to be successful at reducing injuries if they are integrated into, and tailored to, the community and involve community stakeholders.¹² Trials of community programs that involve home visits to distribute free smoke alarms have reported large increases in smoke detector ownership and decreases in fire-related injuries.¹³

Children and Youth With Special Health Care Needs

Children with special health care needs may present with unique needs for safety and injury prevention. Parental supervision must be focused on the developmental level and physical capabilities of the child. Parents of children with special health care needs may have to seek alternative safety equipment, such as special car safety seats, to ensure a safe environment. Inquiring about the need for this equipment and providing information or resources may improve the quality of life for families, as in the case, for example, of a family that may not be able to travel together without such equipment.¹⁴ Increasing parents' awareness of the potential added complexity of creating a safe environment for their child with special health care needs and guiding parents toward local and national resources are ways that the health care professional can help parents provide a safe environment.

Many children with special health care needs encounter new safety challenges as they enter school and begin to deal with the community at large. They often are vulnerable and at risk of being bullied or victimized. They also may have an increased risk



of maltreatment, including child neglect and physical or sexual abuse. Because they may rely heavily on caregivers for their physical needs and hygiene, their mental or physical limitation may impair their ability to defend themselves. Health care professionals can highlight differences between caregiving and sexual abuse, discuss the potential of bullying, and encourage parents to establish monitoring systems at home, in the community, and at school to protect their child. Planning for children with special health care needs requires understanding and anticipating the child's limitations and needs, with designated roles for family members and referral to additional community resources to ensure safety.

Safety and Injury Prevention Counseling in the Bright Futures Visit

Anticipatory guidance for safety is an integral part of the medical care of all children. Counseling needs to be directed to the parent as the role model for the child's behavior and as the person who is most capable of modifying the child's environment.¹ Counseling about some of the more effective safety and injury prevention interventions, such as using car safety seats and seat belts, spans infancy through adolescence, while other issues, such as bicycle safety, are developmentally and age specific.

Evidence from several systematic reviews confirms that injury prevention guidance is effective and beneficial. Bass et al¹⁵ found that parents view pediatricians as respected advisors, especially on health-related issues. In 18 of the 20 studies reviewed, positive effects from injury prevention counseling included improved knowledge, improved safety behaviors, and a decrease in the number of injuries involving motor vehicles and non-motor vehicles.¹⁵

DiGiuseppi and Roberts¹⁶ systematically reviewed 22 randomized controlled trials to examine the impact on child safety practices and unintentional injuries of interventions

delivered in the clinical setting. The results indicate that some, but not all, safety practices are increased after counseling or other interventions in this setting. Specifically, guidance about motor vehicle car safety seat restraints for young children, smoke detectors, and maintenance of a safe hot water temperature was more likely to be followed after interventions in the clinical setting than guidance on other issues. Clinical interventions were most effective when they combined an array of health education materials and behavior change strategies, such as counseling, demonstrations, the provision of subsidized safety devices, and reinforcement.

Four safety topics that deal with ways to reduce or prevent violence have particularly strong research evidence and lend themselves to pediatric anticipatory counseling: (1) using constructive disciplining techniques and alternatives to corporal punishment¹⁷⁻²⁵ (see the [Promoting Family Support](#) theme), (2) promoting factors associated with psychological resilience among adolescents²⁶⁻²⁹ (see the [Promoting Mental Health](#) theme), (3) preventing bullying³⁰⁻³² (see the [Promoting Mental Health](#) theme), and (4) preventing gun injury^{25,33-43} (see the [Safety Priority in selected Visits](#)).

Since its peak in the mid-1990s, the epidemic of fatal youth violence has steadily declined. Many segments of society, in addition to the health care system, have contributed to this reduction.⁴⁴ Programs with proven effectiveness are described by the University of Colorado Center for the Study and Prevention of Violence (www.colorado.edu/cspv/blueprints/index.html). Information about a wide variety of violence prevention programs, ranging from public service announcements to school curricula, is available through the National Youth Violence Prevention Resource Center (www.safeyouth.org).

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care professional.^{23,45} Pediatricians also have expressed enduring interest in violence prevention counseling, although many feel inadequately trained to do so.⁴⁶ Few published studies directly address the effectiveness of health care professional counseling in violence prevention. However, the strong supporting research evidence provides a rationale for incorporating violence prevention into routine clinical practice.⁴⁷

The effectiveness of counseling can be improved if a health care professional knows the risks specific to the local population. For example, if the major cause of morbidity in the local population is handgun-related violence, counseling about guns is appropriate. In a farming community, counseling about the risk of agricultural injury can be more pertinent. Local injury data can be obtained from state or local departments of health, and statewide fatality data are available online (www.cdc.gov/ncipc/wisqars). The astute Bright Futures health care professional will adapt these Guidelines to the child, family, and community based on a sound knowledge of the local causes, risks of injury in the child's environment, and the assessed and expressed needs of the child and family.

TIPP®—The Injury Prevention Program,⁵ developed by the American Academy of Pediatrics (AAP), is a developmentally based, multifaceted counseling program that allows the health care professional to use safety surveys at strategic visits and counsel parents on unintentional injury prevention topics delineated as areas of specific risk. Parents can complete these surveys, which are distributed by office staff, in a few minutes. Based on information from the surveys, health care professionals can use different parts of TIPP to individualize and supplement their anticipatory guidance with counseling and handouts that are appropriate for the child's age and community. In an effort to better tailor anticipatory guidance, primary care practices have used kiosk systems to help delineate

specific injury risks that families might have in the home.⁴⁸ The health care professional may choose to concentrate counseling on topics with the potential for catastrophic consequences.

Connected Kids: Safe, Strong, Secure, also developed by the AAP, takes an asset-based approach to violence prevention anticipatory guidance.⁴⁹ Recommended counseling topics for each health supervision visit discuss the child's development, the parent's feelings and reactions to the child's development and behavior, and specific practical suggestions on how to encourage healthy social, emotional, and physical growth in an environment of support and open communication. Counseling can be supplemented by the use of Connected Kids brochures for parents and youth. (For more information on this topic, see the *Bright Futures Toolkit*.)

Each Bright Futures visit has established safety priorities for discussion, and sample questions are provided in the anticipatory guidance sections. The priorities and sample questions in each visit that are relevant to safety are specifically linked to the counseling guidelines in TIPP (for Infancy, Early Childhood, and Middle Childhood visits) and Connected Kids (for all visits), making it easy for the practitioner to incorporate these tools in a Bright Futures practice. In addition, the *Bright Futures Toolkit* includes many other resources that may assist the health care professional.

The Health Care Professional as a Community Advocate for Safety

The clinical setting may not be suitable for carrying out the entire range of information, modeling, resources, and reinforcement that are required to change safety practices. For some families, the effectiveness of clinical interventions can be boosted if they are delivered in concert with community efforts that involve representatives from the community to overcome language and cultural differences.

For example, community-based educational interventions that have included clinical counseling as one component of a broader effort have shown positive effects on childhood bicycle helmet ownership and use.⁵⁰ Nationwide, bicycle helmet education campaigns and legislation, as well as improvements in helmet design, have contributed to a reduction of fatalities.⁷

Health care professionals can consider participating in fun, community-based safety activities and can support community partners to increase public awareness about safety issues and provide prevention education. In most communities, it is possible to partner with agencies such as the local fire departments, Safe Kids USA (<http://www.safekids.org/members/unitedStates.html>), and public health programs that work directly with families of young children. In addition, health care professionals often provide leadership for effective safety and injury prevention programs and legislation through advocacy activities and testimony at public hearings. (For more information on this topic, see the Promoting Community Relationships and Resources theme.)

Promoting Safety and Injury Prevention: The Prenatal Period

Safety and injury prevention begins in the prenatal period. Preparing for the arrival of an infant should include the purchase of an approved car safety seat and a crib that meets approved safety standards. Prospective parents also may want to consider other safety measures, such as taking an infant CPR and first aid class, getting a first aid kit, checking or installing smoke detectors, and placing the National Poison Control Center telephone number on all their telephones.

Promoting Safety and Injury Prevention: Infancy—Birth to 11 Months

Promoting safety and preventing injuries is a continuing task for parents during the first year of their child's life. Injury prevention for the infant requires careful integration of awareness of developmental skills as they are rapidly acquired and the necessary supervision and interventions to ensure the infant's safety. Parents commonly underestimate their infant's motor skills while overestimating their infant's cognitive skills and judgment. Counseling in the primary care setting is important to help parents understand the correct timing of the development of these skills so that they can focus their safety interventions most appropriately.

Although suffocation and motor vehicle crashes are the most common causes of unintentional injury and death during this age, the infant also is at risk of other injuries, including falls, fires and burns, poisoning, choking, and drowning. Each of these tragedies is preventable, and appropriate counseling can provide parents with the knowledge and strategies for reducing the likelihood that these injuries will occur. Vulnerable infants who are exposed to maternal substance use, secondhand smoke, malnutrition, lack of caregiver supervision, or caregiver neglect also are at increased risk of morbidity or death. The importance of

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establishing good habits begins in infancy, and parents can be counseled about the positive value of their own behavior as a role model for their child.

Sudden Infant Death Syndrome

Sudden Infant Death Syndrome (SIDS) is the leading cause of death in infancy beyond the neonatal period. Current guidelines⁵¹ cite evidence that the risk of SIDS is reduced when infants sleep on their backs and in their parents' room, but not in their parents' bed. (For more information on this topic, see the Promoting Child Development theme.)

Pacifiers have been linked with a lower risk of SIDS. It is recommended that infants be put to sleep with a pacifier, beginning at 1 month of age. It should not be forced if the infant refuses or be reinserted once the infant is asleep.

Promoting Safety and Injury Prevention: Early Childhood—1 to 4 Years

Young children are especially vulnerable to preventable injuries because their physical abilities exceed their capacities to understand the consequences of their actions. They are extraordinary mimics, but their understanding of cause and effect is not as developed as their motor skills. Gradually, between the ages of 1 and 4 years, children develop a sense of themselves as a person who can make things happen. However, at this age, young children are likely to see only their part in the action. A 2-year-old child whose ball rolls into the road will think only about retrieving the ball, not about the danger of being hit by a motor vehicle. Caretakers of young children must provide constant supervision. They should establish and consistently enforce safety rules, recognizing that this is done more to establish a foundation for following rules because young children do not have the cognitive capacity to understand the rule, take action, and avoid the hazard.

Parents and other caregivers should be aware of potential hazards in their home, and they should create a safe environment that will allow the young child to have the freedom she needs to explore.

Parents can teach their child about personal safety at an early age. Parents should train their child how to approach authority figures (eg, teachers, police, and salesclerks) and ask them for assistance in the event she becomes lost or temporarily separated from her parents.

A 1- to 4-year-old child also does not fully understand that her actions can have harmful consequences for herself or for others, and parental guidance is, therefore, necessary to shape aggressive behaviors. Longitudinal observations have suggested that childhood aggression peaks around age 17 months and that, with adult guidance, most children learn to regulate these tendencies before school age.⁵²

Promoting Safety and Injury Prevention: Middle Childhood—5 to 10 Years

Middle childhood is a time of intellectual and physical growth and development, when children become more independent. The controls and monitoring that parents provided during the early childhood years change as children get older. As children go to school, participate in activities away from home, engage in more complex and potentially dangerous physical and social activities, and encounter children and adults who are not members of their immediate families, they need to develop good judgment and other skills to function safely in their expanding environment. Safety promotion and injury prevention are central aspects of the child's education.

Preventing or lessening the effects of violence also is an ongoing concern for many children during the middle childhood years, especially those living in families or communities where violence is prevalent. Television violence also may have serious effects during

this period, as children spend increasing amounts of time away from home or out of the continued supervision of a parent and have increased opportunities to watch TV.⁵³

School and Community Safety

During this time, children transition from complete dependence on their parents to developing their own strategies and decision-making skills for ensuring their own safety. Nowhere is it more apparent than when children are out of the home and functioning independently in their community. The process of going to school, on errands, to a friend's house, or to a music lesson, scout meeting, or team practice can present challenges to the young child who is negotiating his environment. Walking or taking the bus, going with groups of other children, and meeting new adults all have the potential for increasing social skills and respect for others, as well as the potential to place the child in danger. This developmental stage is the time when children acquire essential interpersonal skills, including conflict resolution. School-based conflict resolution and skill-building programs have been shown to be effective.⁵⁴⁻⁵⁶

The health care professional should encourage parents to know the child's activities, daily whereabouts, and friends. Good communication between parent and child is essential to the child's safety. Lessons that were introduced in early childhood, such as pedestrian safety (eg, retrieving a ball from the street), dealing with authority figures, and appropriate touching by others, should continue as needed. This information does not need to be communicated specifically as a safeguard against abduction or abuse, but can be taught as developmental achievements to be praised for their own value in the growing child.⁵⁷ The message to parents is that they should safeguard their children but not generate unnecessary fear or overly restrict freedom and independence.

Ensuring a safe environment and appropriate supervision is essential for children who are home alone for any period of time. Parents should make sure the child has information about his home, including address, telephone number, and keys to the home, and a "backup" contact person if the parents are not available. Parents should insist that the child "check in" with his family. Health care professionals also can partner with child care centers, schools, after-school programs, and municipalities to enhance public awareness and modify physical environments. Speed bumps, crosswalks, the passage and enforcement of school zone speed limits, and school bus safety laws can create a safer environment for child pedestrians.

Peer pressure also emerges during this period. Children need to be encouraged to develop a sense of their own identity and locus of control and taught strategies for dealing with inappropriate peer pressure or behavior. Health care professionals should address these issues with parents and encourage them to discuss these issues with their child. By discussing these issues openly, the health care professional is modeling safe behavior and is encouraging the parent and child to communicate.

Bullying

Bullying is a social phenomenon of childhood in which a larger or more powerful child repeatedly attacks (physically or emotionally) a smaller or weaker child.^{30,31} (For more information on this topic, see the Promoting Mental Health theme.) Children can be effectively identified as bullies, victims, or bystanders. Effective bullying prevention programs have been demonstrated for use in the schools, and all rely on direct measures by school administration and the mobilization of bystanders to protect the victims and identify bullying behavior as socially intolerable. Physician counseling of individual patients

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begins with the recognition of bullying as a cause of psychosomatic complaints and may include both individual counseling and referral of parents to effective anti-bullying resources.³² Bullies, themselves, are at high risk of long-term adverse consequences and often need behavioral counseling.

Play, Sports, and Physical Activity

Physical activities play an important role in the child's life during this age. Participation in team and individual sports consumes considerable amounts of time in the child's life. Although the overall health effect is usually very positive, children need to learn and follow safety rules for their protection and the protection of others. (For more information on this topic, see the [Promoting Physical Activity](#) theme.) Parents also should be encouraged to model safe behaviors, such as wearing seat belts and bicycle helmets. Children should follow traffic rules and safety guides concerning bicycle riding, skating, skiing, and other similar activities. The use of protective gear, such as helmets, eye protection, mouth and wrist guards, and life jackets or personal protective devices, is not negotiable and should be used at all times by everyone.

Promoting Safety and Injury Prevention: Adolescence—11 to 21 Years

In caring for the adolescent patient, the approach to injury prevention shifts from parental control to the adolescent herself. Health care professionals should direct anticipatory guidance directly to the adolescent and encourage behaviors that promote safety. Injury and violence are major causes of morbidity and mortality among adolescents. Although the leading causes of death of 11- to 21-year-olds vary by race and age, the top 3 causes are consistently vehicular injury, homicide, and suicide.⁷ Although serious injuries and death are more common among

boys, violence among girls also may be increasing. Dropping out of school, using drugs, and getting in physical fights place adolescents at higher risk of severe injury or death.⁵⁸ Protective factors, such as connectedness with school and adults, are associated with reduced violence in youth.²⁶ Health care professionals can recognize and encourage the protective factors in youth as a strategy to promote safety and reduce injuries.

Driving

Learning to drive is a rite of passage for many adolescents and is a reflection of their growing independence and maturity. Adapted equipment and special driving techniques make it possible for many youth with special health care needs to drive. Health care professionals should encourage parents to be initially involved with their adolescent's driver's education by doing practice driving sessions together and by establishing rules that foster safe, responsible driving behaviors. Parents should continue to monitor their child's driving skills and habits to ensure that safe behaviors persist. Current research suggests



that severe motor vehicle crashes with inexperienced drivers are associated with (1) other teens in the car, (2) driving at night, and (3) distractions, such as using a cell phone, adjusting hand-held devices, such as a CD player, a personal digital assistant (PDA), or an iPod®.⁵⁹⁻⁶² Comprehensive graduated driver license programs enacted in many states have been shown to reduce fatal crashes.⁶³ Parents should familiarize themselves with the provisions of the Graduated Driver License law in their state, and require their adolescent to adhere to the law whether as a driver or as a passenger of a newly licensed teen driver.

Sports

Preparticipation sports physical examinations, which are directed at isolating the few adolescents for whom a sport would be dangerous, provide a unique opportunity for health care professionals to counsel adolescents and their parents on preventing sports injury and violence (eg, hazing, brawling, and foul play) and promoting general health. Generally, sports participation should be encouraged because of the physical, emotional, and social benefits.

Some medical conditions warrant a limitation in sports or require further evaluation before participating. AAP Policy Statements from the Committee on Sports Medicine and Fitness provide a more detailed review of medical issues that limit participation.^{64,65} Some youth with special health care needs may have condition-specific restrictions on their activity and may require alternative or adapted activities that are safe and appropriate. If a heart murmur is innocent (eg, it does not indicate heart disease), full participation is permitted,⁶⁵ but other cardiac disorders require further evaluation. The presence of significant hypertension without heart disease or organ damage should not limit participation, but the adolescent's blood pressure should be measured at the health care

professional's office every 2 months. Adolescents with severe hypertension should be restricted from isometric activities (eg, weight lifting) and competitive sports until their hypertension is under control and they have no end-organ damage.⁶⁴ Any temporary suspension from sports participation because of a medical condition (eg, concussion or surgery) should be reinforced by the health care professional, and children and parents should be made aware of the importance in adhering to all recommendations as to when to resume sport activities.

Health care professionals should advise adolescents to use appropriate protective gear (eg, helmets, eye protection, knee and elbow pads, life jackets or personal protective devices, mouth and wrist guards, and athletic supporter with cup) during recreational and organized sports activities and focus on overall strengthening and conditioning as well as training for their specific sport as key ways to prevent injury and maintain fitness. Performance-enhancing substances, including anabolic steroids, are an important topic for discussion, and adolescents should be urged not to use them. Health care professionals also can encourage parents to be cautious about allowing their children to participate in highly competitive sports until they are physically and emotionally mature enough, and to ensure that such programs are properly certified and staffed by qualified trainers and coaches.

Violence

Violence and exposure to violence increases the risk for homicide, aggressive behavior, and psychological sequelae, including post-traumatic stress disorders.⁶⁶⁻⁶⁹ It has been estimated that, each year, between 3.3 and 10 million children have been exposed to intimate partner violence (IPV).⁷⁰ Childhood exposure to IPV seems to increase the likelihood of risky behaviors later in adolescence

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and adulthood.⁷¹ Additionally, children who witness IPV are at increased risk for adverse behavioral and mental health issues.

Sexual and dating assaults are a leading cause of violence-related injury in adolescence.⁷ Approximately 1 in 5 female high-school students report being physically and/or sexually abused by a dating partner.⁷²

Adolescents who report a history of experiencing dating violence are more likely to exhibit other serious risk behaviors.⁷²

Screening for violence exposure can identify those who need further intervention.⁷³ Foshee et al⁷⁴ found that *Safe Dates*, a school-based adolescent dating violence prevention program, showed promise for preventing violence among adolescents. Much of the short-term behavioral effects had disappeared at a 1-year follow-up, but effects on dating violence norms, conflict management skills, and awareness of community services for addressing dating violence were maintained.⁷⁵

Certain youth subcultures may experience comparatively greater violence, including injury, abuse, and rape. Teens who use drugs, report having been in more than 4 fights in the past year, are failing in school, or have dropped out of school are at substantially increased risk for serious violence-related

injury.⁵⁸ Studies have found victimization, substance use, and sexual risk behaviors among gay youth to be significantly higher than among their heterosexual peers.⁷⁶ Homicide is consistently the leading cause of death for African American youth, but vehicular death is more prevalent in other ethnic groups.⁷

Gangs

The 2002 National Youth Gang Survey estimates that gangs are active in more than 2,300 cities with populations greater than 2,500.⁷⁷ The prevalence of youth gang membership varies according to the city, but is higher in larger cities and those with a history of gang activity. Risk factors for gang involvement include prior and early involvement in delinquency, especially violence and drug use; poor parent-child relations; low academic performance and attachment to school; association with peers who are delinquent; and disorganized neighborhoods with a large number of youth who are in trouble.^{78,79} Health care professionals who are alert to these risk factors should screen for gang exposure. The National Youth Gang Center has resources for gang prevention, intervention, and suppression.^{47,80}

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