

Injury prevention tips for healthy active living at home, school and in the community



The health benefits of life-long physical activity have been well documented and are summarized in the “Healthy Active Living” position statement (pages 339-345) in this issue of *Paediatrics & Child Health*. Paediatricians can assist parents, schools and communities in encouraging healthy lifestyles for children and youth, and can promote safe participation in sports or individual fitness activities. Reducing the risk of injuries involves the consideration of factors related to the participant, activity, equipment and environment. Factors related to the participant include age, skill, development, risk-taking behaviours, fatigue and intoxication due to drugs or alcohol. Those related to the activity include technical difficulty, rules, speed, body contact and use of motorized and nonmotorized vehicles. Equipment factors include the fit and maintenance of equipment, including protective equipment. Environmental factors include playing surfaces, surroundings, weather and supervision. The following tips can be used to counsel parents in the office about safe and healthy lifestyles, to advise schools and communities about safe physical activity, and to advocate for policies and environments that facilitate safe active living for children and youth.

SELECTING AN ACTIVITY

- Choose activities that are developmentally appropriate, taking into account age, physical size, skills and developmental stage (motor, cognitive, social). For example, young children benefit more from unstructured play (running, tumbling, throwing, catching) than from organized or competitive sports or activities. Even young children should participate in selecting sports and physical activities.

- Be aware of the risk of injury associated with various activities. Lower risk activities include walking in a neighbourhood park or swimming in a public pool. Higher risk activities are associated with body contact (hockey, football), speed (downhill skiing), motorized vehicles (all-terrain vehicles, snowmobiles, watercraft) and uncontrolled environments (traffic, lakes, rivers). Protective equipment, training and supervision are especially important for children and youth participating in higher risk activities.
- The risks of using alcohol and drugs should be discussed with older children, youth and their families. Intoxication is frequently implicated in serious and fatal incidents involving snowmobiling, boating, swimming and diving.
- Activities that parents can enjoy with their children, such as walking, hiking, cycling and swimming, provide opportunities for skill enhancement, modelling of safe behaviours and adult supervision.
- Children and youth with specific medical conditions (cardiac disease, bleeding disorders) require special consideration when selecting physical activities and sports. Referral to a specialist or sports medicine physician should be considered for medical clearance.

CLOTHING AND EQUIPMENT

- Proper clothing and footwear not only reduce the risk of injury, but also allow for a more enjoyable experience, encouraging children to be active and to remain active for longer periods. In summer, light-coloured, loose clothing and a hat help to prevent

heat-related illnesses. In winter, layered, dry clothing, a hat, neck warmer, dry boots and propylene liners help to prevent frostbite and hypothermia. Sunscreen and hydration are important in all seasons.

- For activities in and around traffic, light-coloured and reflective clothing is recommended.
- Children and youth should wear protective equipment that is appropriate for the chosen activity and that fits well.
- Helmets are recommended for cycling and other road activities (inline skating, scooters), and for winter sports such as hockey, sledding, downhill skiing and snowboarding. The helmet must be of the correct type and fit and certified for the sport or activity (look for Canadian Standards Association, US Consumer Product Safety Commission, American Society for Testing and Materials, or Snell on the label). Bicycle helmets can be used for cycling, inline skating, skateboarding and for riding nonmotorized scooters, but should not be used for winter sports. Helmet use is required by law for young cyclists in many provinces. 'Multipurpose' helmets are designed for multiple impacts, provide greater coverage of the occiput, and can be used for any of the latter-mentioned summer activities. Ski helmets can be used for snow sports such as downhill skiing, snowboarding and sledding. Hockey helmets can also be used for sledding and ice skating, and should provide full face protection, particularly eye protection. Most types of helmets should be replaced after five years. For an extensive review of helmet-related information see <www.helmets.org>.
- Mouthguards are recommended for sports with a risk of body contact, such as ice hockey, ringette and football.
- Wristguards are recommended for inline skating and snowboarding, but should not be used when riding bicycles or scooters (reduced mobility may result in loss of control). Elbow pads and knee pads can be used for any road sport.

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- Protective eyewear should be used for activities such as racquet sports, hockey and baseball, which are associated with a high risk of ocular injury due to contact with an object (ball or puck), equipment or another player.
- For activities in and around water, a government-approved personal flotation device is recommended, but is not a substitute for adult supervision.
- Athletic cups should be used for contact sports and sports with a significant risk of groin injury, such as hockey, lacrosse, football and martial arts.

SAFE ENVIRONMENTS

- Designated recreational areas should be used when possible, particularly in dense urban areas. Public parks and other open spaces, swimming pools, bicycle and fitness paths, and walking trails should be developed and maintained by communities.
- School and community recreational facilities and playing fields should comply with current standards for design and installation, and should be properly maintained and cleaned. Supervising adults, such as teachers and coaches, should be appropriately trained and certified, should ensure compliance with rules of the game for organized sports, and should be familiar with emergency procedures, including first aid and return to play guidelines.
- Walking and cycling to and from school should be encouraged and safety should be optimized through the careful consideration of neighbourhood barriers (fears, esthetics, inconvenient routes) and hazards (lack of sidewalks and bicycle lanes or paths, poor road maintenance, blind corners), and subsequent municipal action should be taken.
- Playground equipment, whether residential, commercial or public, should be surrounded by an adequate depth of recommended surfacing material such as sand, pea gravel or synthetic product. Public playgrounds should comply with the national standard for surfacing, equipment and maintenance.

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