SPLINTERS & FRAGMENTS

Snow sports

Tobogganing, skiing, and snowboarding are naturally very popular in cold climates. From 1991 to 1997, Toronto's Hospital for Sick Children received 147 admissions for life threatening or serious injuries to children after accidents in the snow, with one fatality. Snowboarding was associated with more serious injuries than skiing or tobogganing, most frequently head injuries, long bone fractures, and liver or spleen trauma. The mean age of 13 years indicates a group of children entering the rapid growth phase of adolescence for whom growth limiting injuries have the greatest potential for harm. Snowboards and toboggans lack effective braking mechanisms and snowboards have no steering system. Improving conditions at ski resorts such as clearing obstacles from the slopes, encouraging the wearing of helmets, and improving training for novices are possible areas of preventive effort deserving of further investigation (*Journal of Pediatric Surgery* 1999;34:65-9).

Is sudden death at school due to activity or weather?

In 12 years in Japan's Aichi prefecture, 76 children died without obvious cause at school. The vast majority (55) collapsed during physical activities: 23 while running, 16 during swimming, and 10 during competitive sports. Analysis of the association between sudden death and meteorological conditions revealed that high humidity and low pressure in winter was related to sudden death for a sedentary group, dryness and high pressure in spring for the running group, and dry and cloudy weather for the competitive sports group, but no clear patterns emerged. The authors conclude: "Our present study suggests that sudden deaths in children at school tend to be associated with vigorous activities such as running. In addition, circadian and circaseptan rhythms and meteorological conditions influence sudden death." (*Pediatrics International* 1999;41:151-6).

Child pedestrians exposed to more traffic are at greater risk of injury

Estimating children's exposure to traffic assists researchers in identifying modifiable factors which may contribute to injury rates. A total of 4080 randomly selected students

in grades 1 and 4 attending 43 Montreal schools were questioned about the previous day's street crossings. Parents supplied information about duration of travel, mode of transport to and from school, and who accompanied the child. Socioeconomic status of the school district was estimated from census data. The authors found that

"children in relatively disadvantaged schools cross, on average, 50% more streets a day than those in nondisadvantaged schools and that they have a correspondingly higher injury rate". While boys and girls had similar exposure, injuries to boys and to younger children were consistently higher, indicating the likely influence of behavioural and developmental factors. Children whose families do not own cars are at increased risk from greater exposure to traffic. Crossing main streets also represented greater risk. Preventive efforts should be directed to environmental modification rather than "reducing exposure by placing further demands on parents to accompany their children to and from school" or by encouraging increased volumes of vehicle traffic (*American Journal of Public Health* 1998;88:1840-3).

Return of an old adversary: flammable nightwear

What a tragedy that a problem which was all but eliminated has re-emerged in response to changing clothing fashions. Legislation to restrict the flammability of children's nightwear was enacted in Britain in 1967 and updated in 1985, leading to a dramatic decrease in the incidence of flame burns from this cause. Changing trends in nightwear, however, have seen a re-emergence of the problem, particularly associated with wearing cotton T-shirts as nightdresses. Skin damage from such burns is frequently severe and irreparable. The five cases reported, all girls, and aged from 2-11 years, were playing with matches or lighters when their clothing caught fire. T-shirts are not covered by existing legislation requiring flame retardant nightwear as they are not sold as sleepwear (*Burns* 1999;25:269-71).

Cultural characteristics of bath scalds

What makes the population of one country more susceptible to bathtime scalds than the residents of another country? This study of bath related burns in Japan (58/216) found that 80% of burns to children aged 3-5 years were bath related compared with 16% for the remainder of the age range to 70+ years. A greater body surface area was involved in bath related burns. Mechanisms differed with age: 0-2 year olds were scalded with or by another family member; 3-5 year olds usually fell into the bath while playing on the bath cover; children aged 6-15 were burned when they were switching off the bath boiler or checking the temperature; the latter was also common in the adult group. The research team attributed some of the injuries to Japanese bathing practices including a preference for long, hot baths in deep tubs rather than showering, and the installation of an added boiler to supplement the hot water supply to reheat the bath during bathing. Preventive measures required include stronger bath covers, mixing valves to limit the hot water temperature, and improved bathroom architecture (*Burns* 1999;25:272-6).

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