A PARENT ASKS
This year my 10-year-old son plans to go trick-or-treating with his friends without my supervision. What Halloween health hazards have been reported? What are some Halloween safety tips?

THE PARENT COACH ADVISES
Participating in Halloween is popular among children of all ages. In 2013, the estimated number of potential trick-or-treaters—children aged 5 to 14 years—in the United States was 41.2 million. The age at which it is safe for a child to trick-or-treat without supervision should be determined on a case-by-case basis based on the child's maturity level and the maturity level of the other children in the group. A 2011 national survey found that 12% of children under the age of 5 trick-or-treated without adult chaperones, and only 35% of parents talked to their children annually about Halloween safety concerns.

REPORTED HALLOWEEN HEALTH HAZARDS
Pedestrian Injury. While many parents worry about strangers and candy that has been tampered with, the true danger during trick-or-treating is pedestrian injury. Halloween is ranked as the No. 1 day of the year for child-pedestrian accidents and fatalities. One analysis of data from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System found that 115 child-pedestrian fatalities occurred on Halloween from 1990 to 2010. This average of 5.5 pediatric fatalities per year on Halloween is more than double the average of 2.6 pediatric fatalities on all other days of the year. The group at highest risk is 12- to 18-year-olds, who accounted for 32% of the fatalities, followed by the 5- to 8-year-old age group at 23%. The majority of these fatalities (60%) occurred during the peak trick-or-treating hours between 5 PM to 9 PM. The deadliest hour of trick-or-treating was from 6 PM to 7 PM. The drivers of the vehicles involved in one-third of the accidents were young adults between the ages of 15 and 25 years.

Tampered Candy. The fear of candy that has been tampered with is media-driven and is a common concern among parents nationwide. The results of a 2011 Harris Interactive poll showed that 24% of parents with children under the age of 12 years worry about poisoned treats. To date, five reported deaths have been linked to Halloween candy: two in the 1970's that eventually were attributed to the direct actions of family members rather than strangers, one when a child ingested heroin that a relative had stashed among the candy, and one when a father murdered his son with cyanide-laced Pixy Stix candy in order to collect on a life insurance policy. Other fatalities in 1978 and 1990 later were determined to be associated with preexisting cardiac disease and natural causes. The 2001 case of a 4-year-old in Vancouver, Canada, who died a day after ingesting trick-or-treat candy was widely reported in the news media. After police ordered children and families across the area to dispose of their Halloween candy, it eventually was determined that the cause of death was streptococcal infection unrelated to Halloween candy.

Nevertheless, some incidents of Halloween candy tampering have been reported. In 2000, trick-or-treaters in Hercules, California, found marijuana-packed Snickers bars in their Halloween candy. A police investigation found that a worker in the Hercules post office had found the candy bars among the undeliverable Table, Halloween Health Tips

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<td>Provide adult supervision for children under the age of 12 years.</td>
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<td>If trick-or-treating in a car, provide transportation for adolescents, or take the time to educate them about increased vigilance on Halloween night.</td>
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<td>Avoid the use of cell phones and other electronic devices that might distract children from walking and/or driving safely.</td>
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<td>Choose costumes that are easily seen, or place reflective tape on outfits and bags.</td>
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<td>Attempt to complete trick-or-treating before the darkest part of the night.</td>
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<td>Carry glow sticks and flashlights.</td>
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<td>Avoid clothing, masks, and costume props that can obscure vision or walking.</td>
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<td>Trick-or-treat at known households in communities with sidewalks or paths.</td>
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<td>Check treats for signs of tampering (although this occurs rarely), and eat only treats that are sealed in the original packaging.</td>
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<td>Continue healthy snacking.</td>
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<td>Avoid treats that will stick to teeth, and continue proper dental hygiene practices.</td>
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<td>Set a limit to the amount of candy to be consumed each day.</td>
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mail and took them home to distribute to trick-or-treaters. The tainted candy was the result of an unknown person’s failed attempt to mail 5 ounces of marijuana to San Francisco. Still, while the threat of encountering poisoned Halloween candy is a possibility, the likelihood remains very low.

Another fear is the placing of sharp objects such as needles, glass, or razors into Halloween treats. Approximately 80 such cases have been reported since 1959. The large majority of these cases have been determined to be hoaxes. A needle stick injury was reported in 2000 when a teenager bit into a tainted candy bar; however, no long-term complications were associated with the incident. A 49-year-old man eventually was criminally charged after investigations found that he had hidden needles in chocolate bars and had given them to trick-or-treaters.

Physical Assaults. Parents also may fear that their children may be vulnerable to physical harm from other children or adults while trick-or-treating without supervision. In 2009, a group of researchers studied the threat of strangers and child sex-crime rates associated with Halloween activity. The authors concluded that there was no increase in the rates of sex crimes against children aged 12 years and younger around Halloween.

Other Health Hazards. In the United States, more than $2.4 billion is spent on Halloween confections each year, exceeding the number of sweets purchased for Easter, Christmas, and Valentine’s Day. Excessive sugar consumption can contribute to obesity and dental decay. Increased hospital visits related to abdominal pain and/or diarrhea secondary to ingestion of large amounts of sorbitol on Halloween also have been reported.

HALLOWEEN HEALTH TIPS

The accompanying Table lists other practical Halloween health tips compiled from various resources.

Halloween can be an enjoyable way for families to spend time together and for pediatricians to promote healthy lifestyle practices. This yearly celebration is another opportunity to discuss the importance of proper food choices and dental hygiene. Although the suggested recommended age to allow children to trick-or-treat without adult accompaniment varies depending on the child’s maturity level, parents should consider supervising children younger than 12 years of age.

Some parents might ask about the value of X-raying their children’s Halloween candy. A study involving three hospitals that offered candy X-raying found that the 394 radiographs cost $1,625 with no positive results. The authors estimated that nationwide, Halloween candy X-raying could cost as much as $1.4 million and provide no proven benefit.

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REFERENCES