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**home**safety

# Hazards hiding *in the* dark

What to do when the power goes out

By Deidre Bello

**When the power goes out** unexpectedly in a home, the resulting darkness can bring about a number of hazards. Families can eliminate the odds of injury by knowing what to watch for and actions to take before power is lost.

## Electrical and fire hazards

One of the first actions a person should take when the power goes out is immediately shut off all unnecessary electrical appliances and equipment. Keep one light plugged in and turned to "On" to signal when power is restored. The National Fire Protection Association in Quincy, MA, recommends homeowners use flashlights instead of candles or glow sticks during power outages because candles, when left unattended, can easily ignite objects and lead to a home fire. (On average, a candle fire in the home is reported every 34 minutes.) According to the NFPA, nearly 3,000 people a year die in fires, and more than 80 percent of fatalities are a result of home fires.





The NFPA advises people to:

- Keep batteries on hand to replenish flashlights.
- Make sure the battery in your smoke detector is fresh, and test the detector to ensure it is working.
- Never leave a child alone in a room with a burning candle.
- Keep matches and lighters out of reach of children.
- If you do burn candles, make sure they are at least 12 inches away from anything flammable.
- Use candle holders that are sturdy and will not tip over.
- Never use a candle in a home where medical oxygen is used.
- Do not burn a candle all the way down to the holder or container.
- Always blow out all candles when you leave the room or go to bed. Avoid use of candles in the bedroom and other areas where people may fall asleep.

### Extreme temperatures and carbon monoxide

Power outages caused by a thunderstorm or other weather-related event may last only a few hours. However, they sometimes can last longer. According to Dr. Alison Tothy, medical director of the Pediatric Emergency

Medicine Department and assistant professor in the Department of Pediatrics at the University of Chicago, power outage injuries treated in emergency rooms often are the result of loss of electricity or gas due to an inability to pay utility bills. Still, accidental injuries during even a short-term power outage are a concern, she said.

“Our biggest concern is extreme heat,” Tothy said. During the summer months, people often open windows and position furniture nearby to cool down. Unfortunately, what happens is children manage to climb on either a bed or chair and fall out the window, she said.

“A lot of families think that screens are adequate protectors against falling out of windows but they’re not,” Tothy said. “People need to limit the opening of a window to no more than 4 inches.”

Window clips or guards can be used to limit openings and still be easily removed in case of a fire.

Another hazard is the threat of carbon monoxide poisoning – often from using portable generators. Approximately 450 Americans died from unintentional CO poisoning from 1999 to 2004, according to the Centers for Disease Control and Prevention. More than 20,000 people visit emergency rooms and more than 4,000 are hospitalized due to CO annually. Approximately 73 percent of these exposures occur in the home, and 41 percent occur during winter months (December to February).

According to the Washington-based non-profit Safe Kids Worldwide, young children are more susceptible

to CO and may experience symptoms sooner than a healthy adult. Due to their smaller bodies, children process CO differently than adults and may be more severely affected by CO in their blood.

CO poisoning occurs when the exhaust from a generator is inhaled, and can lead to incapacitation or death in a matter of minutes. Common symptoms of CO poisoning include headache, flushed or red complexions, dizziness, weakness, nausea, vomiting, chest pain, and confusion.

The Consumer Product Safety Commission advises families to exercise extreme caution when using generators during a power outage and offers the following safety tips:

- Shut off all unnecessary electrical appliances and equipment.
- Plug individual appliances into the generator using heavy-duty, outdoor-rated cords with a wire gauge adequate for the appliance load.
- Install battery-operated CO alarms or plug-in CO alarms with battery backup. Test them frequently and replace dead batteries.



**More than 20,000 people visit emergency rooms annually due to carbon monoxide poisoning.**



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- Only run a portable generator outdoors with adequate ventilation. Never use a generator indoors or in attached garages. Opening doors and windows or using fans will not prevent CO buildup.

During the winter months, some families may use generators or open their ovens to heat their house, but doing so puts them at risk of CO poisoning as well as stove burns. If families find they cannot keep warm, they should leave the home and go to a rescue center, Tothy said.

**While the power is out, keep the refrigerator door and freezer door closed as much as possible.**



**Know what is safe to eat**

While the urge to clean out the refrigerator and freezer to get rid of potentially rotten food might be strong during a power outage, the CDC advises using discretion before disposing all contents. While the power is out, keep the refrigerator and freezer doors closed as much as possible, the CDC said. Thawed food that contains ice crystals or is 40° F or colder can be refrozen or cooked; however,

items that should be thrown away include:

- Food that has an unusual odor, color or texture
- Food that may have come in contact with flood or storm water
- Perishable foods that have been exposed to a temperature of 40° F or warmer for two or more hours
- Canned foods that are bulging, open or damaged

Food spoilage is of particular concern for infants and young children who use milk formula-based products, Tothy said. She recommended parents limit the amount of formula they mix so as to only use the amount needed at the time, and keep the powder and water separate.

**Use safe water**

Safe water for drinking, cooking and personal hygiene may not be available if water purification systems are not functioning when the power goes out. The CDC offers the following general rules concerning safe water:

- Do not use contaminated



water to wash dishes, brush your teeth, wash and prepare food, wash your hands, make ice, or prepare baby formula.

- Use alcohol-based hand sanitizer to wash your hands.
- Boil water for at least one minute to kill harmful bacteria and parasites.

Tothy warns that emergency water supplies also can present a drowning hazard. Some

families who want to conserve clean water will fill bathtubs, sinks or buckets with water and leave them. But doing so exposes children, especially toddlers, to the risk of drowning, she said.

**Injury preparation**

The National Safety Council advises families to maintain a first aid or emergency supply kit. First aid kits should include a triangle bandage, adhesive tape, adhesive bandages, burn treatment ointment, medical exam gloves, antiseptic towelettes and sterile dressing.

Additional items can include antibiotic treatment, bandage compresses, absorbent compresses, roller bandages, eye coverings, eyewash, a cold pack, an emergency blanket, scissors, tweezers, disposable bags, waterless hand sanitizer and a barrier device. **FS&H**

For more information on what to do when the power goes out, go to:

[www.ready.gov/america/be-informed/blackout.html](http://www.ready.gov/america/be-informed/blackout.html)

[www.cdc.gov](http://www.cdc.gov)

[www.nfpa.org](http://www.nfpa.org)

