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Candle Safety

Updated:

January 2011

IT'S YOUR HEALTH

Candle Safety

Candles can be a serious fire hazard if not used properly. Some candles also have design flaws that increase the risk of fire. Others may contain materials like lead that present health hazards, especially for children. There are a number of things you can do to reduce health and safety risks when you burn candles.



Background

Every year in Canada, human error is responsible for starting a number of candle fires. Some of the common mistakes people make include:

- leaving candles burning with no one in the room, or falling asleep or leaving the house with candles burning
- burning candles close to things that can catch fire (like mattresses, bedding, curtains, cabinetry, upholstered furniture, decorations and clothing)

- leaving burning candles within reach of children or pets

Canada-wide statistics for candle fires are not available. However, based on data from Ontario, Manitoba, Alberta and B.C., it is estimated that candles were responsible for an average of nearly 800 candle fires in Canada each year between 1999 and 2008, with a yearly average of 8 fire deaths, 115 fire injuries and \$26.2 million in property damage. Candle fires are most common during holidays and special occasions.

Health and Safety Risks Associated with Candles

The most obvious hazard when you burn candles is the risk of injury or death from fire. In most cases, candle fires are caused by the human errors noted above, but the design of candles can also increase the risk of fire and fire-related injuries.



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One example is candles with multiple wicks. Health Canada tested this type of candle and found that with certain brands, lighting all of the wicks at once can produce a single high flame, or a number of large flames close together. The result is very intense heat that can ignite nearby materials, like curtains or clothing. These candles can also melt rapidly, leaving a large pool of hot wax that can cause burns.

The materials used in and on the candles can also present fire hazards. For example, some candles have decorations made of paper and ribbons, and some have outer layers made of tree bark, paper or other non-wax coating. These materials are very flammable and may increase the risk of fires and burns.

In some cases, fires are started because the candle wax gets so hot it catches fire itself.

Some candles may also have wicks with a metallic core that may contain [lead](#). When these wicks burn, they produce lead vapours and dust, which can be harmful, especially for children and pregnant women. You can test candles you already own to see whether the wick contains lead by removing wax from the tip of the wick, separating the fibre strands from the wick to see if there is a metallic core, and rubbing this metallic core on a piece of white paper. If it leaves a grey mark on the paper, then the metallic core is probably lead.

Another example of a material that may be hazardous is the liquid fuel used in decorative oil lamps. These lamps are also called liquid paraffin candles. The fuel is usually a petroleum distillate, which is poisonous when swallowed. There have been at least eight incidents of Canadian children being poisoned by



drinking this fuel directly from the lamps. In one case, the child died.

“Relight” candles (also known as “trick” candles or “magic” candles) are also hazardous. These candles can reignite spontaneously after the flame has been put out. The sale, advertising or importing of relight candles has been prohibited in Canada since 1977.

Minimizing Your Risk

The following steps will help minimize your risk when you burn candles in your home.

- Follow the instructions printed on the label.
- Trim candle wicks to a height of 5-7 mm (1/4 inch) before lighting the candle. Trim them again every 2-3 hours to prevent high flames.
- Take extra care if you are burning candles with more than one wick. Avoid buying candles with multiple wicks that are close together.
- Use well ventilated candle holders that are sturdy and will not tip over. Avoid wooden or plastic holders, as these can catch fire. Use caution with glass candle holders, which can break when they get too hot.

- Never drop objects, like matches, into candles.
- Keep burning candles away from materials that can catch fire (like curtains, decorations and clothing). If your clothes catch fire, “Stop, Drop and Roll.”
- Keep burning candles out of reach of children and pets.
- Do not leave candles burning with no one in the room.
- Extinguish all candles before you go to sleep.
- Do not burn candles that have lead in the wicks. When you buy candles, ask the retailer if the wicks contain lead.
- Avoid using decorative oil lamps with liquid fuel if you have children under the age of five in your household. If you choose to use this type of candle, keep the fuel locked away, out of sight and reach of children. If you think your child has swallowed liquid fuel, contact your nearest poison control centre immediately.
- Teach your children to be careful around open flames. Make sure they understand that candles are not toys, or something they can eat or drink.



Health Canada’s Role

[Health Canada](#) works closely with a number of partners to promote the safe use of products and protect the public from product-related hazards. Some of Health Canada’s activities related to candles include:



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- prohibiting the sale, advertising or importing of relight candles
- working with the candle industry to end the sale, advertising or importing of candles with lead core wicks
- monitoring the marketplace to ensure that candles being sold do not have lead core wicks
- informing Canadians about health and safety risks related to candles through fact sheets and warnings
- working with community and provincial fire officials to investigate incidents involving candles

Need More Info?

For more information visit the following websites:

- Health Canada, [Burning candles can be Dangerous](http://www.hc-sc.gc.ca/cps-spc/pubs/cons/candel-chandelle-eng.php) at:
<http://www.hc-sc.gc.ca/cps-spc/pubs/cons/candel-chandelle-eng.php>
- Health Canada, [Candles](http://www.hc-sc.gc.ca/cps-spc/house-domes/fire-feu/cand-boug-eng.php) web section at: <http://www.hc-sc.gc.ca/cps-spc/house-domes/fire-feu/cand-boug-eng.php>
- Health Canada, [Consumer Product Safety](http://www.hc-sc.gc.ca/cps-spc/index-eng.php) web section at: <http://www.hc-sc.gc.ca/cps-spc/index-eng.php>
- Health Canada, [Consumer Products Safety Office](http://www.hc-sc.gc.ca/contact/cps-spc/index-eng.php) at:
<http://www.hc-sc.gc.ca/contact/cps-spc/index-eng.php>
or call 1-866-662-0666

- Health Canada, [Holiday Safety](http://www.hc-sc.gc.ca/hl-vs/securit/season-saison/holiday-fetes/index-eng.php) web section at:
<http://www.hc-sc.gc.ca/hl-vs/securit/season-saison/holiday-fetes/index-eng.php>
- *It's Your Health*, [Holiday Safety](http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/life-vie/hol-fefe-secur-eng.php) at:
<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/life-vie/hol-fefe-secur-eng.php>
- Fire Prevention Canada, [Candle Facts](http://www.fiprecan.ca/index.php?section=2&show=candleFacts) at:
<http://www.fiprecan.ca/index.php?section=2&show=candleFacts>

For safety information about food, health and consumer products visit the [Safe Consumers](http://www.health.gc.ca/consumer) website at:
www.health.gc.ca/consumer

For more articles on health and safety issues go to the *It's Your Health* web section at:
www.health.gc.ca/iyh

You can also call toll free at
1-866-225-0709
or TTY at 1-800-267-1245*