

# Burns and Scalds

Kidsafe SA Inc. | October 2016

In South Australia, several hundred young children need medical care for burns and scalds every year.

Children 0–2 years of age are the most vulnerable because they:

- have thinner skin than adults so their skin burns more deeply in less time
- like to climb and are naturally curious
- can move quickly and are more awkward
- do not understand or react to danger
- are reliant on adults to control their environment and keep it safe.

Burns and scalds are among the most distressing injuries that a young child can receive.

Although it is rare for young children to die from burns or scalds, they cause intense pain, with children often needing long-term treatment, and having lifelong disfigurement through scarring.

Children with extensive burns have poorer quality of life and are likely to have physical and psychological issues long after discharge.<sup>3</sup>

What's the difference between a burn and a scald?

**Burns:** contact with a hot object or surface such as heaters and hot appliances; contact with open flames; contact with the car exhaust; and friction burn caused by treadmills.

**Scalds:** contact with a hot liquid such as hot drinks or water from a kettle; saucepan spillages; microwaved/heated food; hot water bottles; and hot bath water.

## Fast facts



76% of burns and scalds occur at home.<sup>1</sup>



Hot drinks and foods are the number one cause of burns to young children.<sup>2</sup>



Water at 60°C will instantly cause a third degree scald to a child.



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# Scalds

## What are the most common causes of scalds?

For children less than two years of age, scalds are commonly associated with hot drinks (usually tea or coffee), water from the jug or kettle, food being heated or cooked in a microwave oven (a common problem is two-minute noodles), hot water bottles, hot oil, hot food on plates, and hot water in a bath. They can happen quickly, often with adults nearby who do not realise the child is reaching for the hot drink or liquid until it is too late.

## How hot does water need to be to scald a young child?

Liquid type	Temperature°C	Time
Boiling water from a kettle	100°C	Under 1 second
Cup of hot tea/coffee	70-95°C	Under 1 second
Hot water from the tap	60°C	1 second
Hot water from a kettle 5 - 10 minutes after boiling	55°C	10 seconds
Hot water from a tap with a temperature regulator	50°C	5 minutes

**Hot drinks:** Be sure to put your child down before having a hot drink, put hot drinks somewhere out of reach, and use non-slip placemats instead of table cloths. Try giving toddlers their own special mug so they do not drink from yours.

**Jugs and kettles:** Keep kettles, jugs, teapots, coffee plungers and cords away from the edge of the bench. Use a cordless kettle, buy a curly shortened electric cord, or tie your kettle cord out of reach of your child.

**Pots and pans:** Keep your child out of the kitchen while cooking. If this is not possible, place your child in a playpen or highchair. Put your child down before handling hot pots and pans. Turn pot handles away from the front of the stove and cupboard benchtops.

**Bathroom** Set the temperature control for your bathroom hot water tap to a maximum of 50°C. Your licensed plumber can tell you how best to achieve this. Always test the bath water's temperature before putting your child into the bath. The recommended temperature for bath water is 38°C. Tap covers can help reduce the risk of your child turning on the hot water. Always put cold water in the bath first, and then add hot water into the mix. Turn off the cold water last so the spout won't be hot. Always stay with your child when they are in the bath. Turn taps off tightly, and keep the bath empty of water when not in use.

Hot water bottles and wheat/heat bags should not be used with young children.

# Burns

## What are the most common causes of burns?

Contact burns in young children are generally due to contact with hot stoves/ovens/grillers, irons, heating appliances (e.g. hair straighteners, radiators), BBQ's and hot exhaust pipes on motorbikes. Burns can also be caused by contact with flames. For example, this can be from house fires, falling or walking in to camp fires, playing with matches or lighters, petrol and other explosive liquids catching alight, or a child's clothes catching on fire.

## How to prevent flame burns

- Install smoke alarms, which can give you warning of fires early enough to get out of the house safely. The SA Metropolitan Fire Service recommends smoke alarms in all bedrooms, hallways, stairwells, and living areas of the house.
- Have a home fire escape plan that you practice with your child at least twice a year.
- Have fire extinguishers and/or fire blankets on hand and up to date.
- Practice 'Get down low and go, go, go' and 'Stop (immediately where you are), Cover (your face with your hands), Drop (to the ground), and Roll (back and forth on the ground to put the flames out)'.
- Do not let young children play with burning candles or sparklers.

- Use child-resistant lighters and store matches in a locked cupboard. Petrol and other flammable liquids should not be used to light fires.
- Use 'low fire danger' nightwear. Look for the fire risk label.
- Ensure heaters are away from curtains, furniture, clothing, bedding and other flammable material. Check heaters are turned off before you go to bed, or leave the house.
- Always supervise young children around camp fires and beware of sites where camp fires have been as there may still be burning embers underneath.
- Always put fires out with water, never sand or dirt.

## How to prevent contact burns

- Install guards around fires, heaters and stoves to keep your child away from hot surfaces.
- Keep irons and cords out of reach so that your child can't pull it down onto themselves.
- On hot days, check play equipment (particularly sliding surfaces), car seat belts, and any metal object before placing your child on it. The sun can heat objects quickly and these can burn your child.
- Closely supervise children at BBQ's.
- Supervise children in the bathroom and keep items such as hair straighteners and curlers out of reach.

**Remember to:** **Stop** - immediately where you are  
**Cover** - your face with your hands  
**Drop** - to the ground  
**Roll** - back and forth on the ground to put the flames out



# First aid

- Immediately put all burns or scalds under cool running water for 20 minutes. It takes this long to cool the skin under the burned/scalded area. If you don't leave it for 20 minutes the skin will keep 'cooking' and can burn deeper into the skin.
- Remove any clothing and jewellery as soon as possible. Clothes can hold the heat in and cause more damage. Jewellery can become a problem when the damaged skin starts to swell.
- Once you have cooled the burn, cover it with cling wrap or a clean damp cloth.
- Seek medical attention if the burn is bigger than a 20 cent coin or the burn is on the face, hands, feet, or genital area.
- In an emergency call 000 while you are cooling your child's burned/scalded skin.



## Prevention checklist

- Have you set the temperature control of the hot water tap in the bathroom to a maximum of 50°C?
- Have you checked the bath water before placing your child in the bath?
- Have you mixed and tested microwaved food and bottles before feeding your child?
- Do you always put your child down before having a hot drink?
- Have you turned the iron and hair straightener off and placed them out of reach, including long cords, when they are not in use?
- Older children can like playing with matches and lighters. Are your matches and lighters always stored well out of reach?
- Do you keep children out of the kitchen when food is being made?
- Have you recently checked that your smoke alarms are working?

### References

1. Silva, H., Gabbe, B., Callaghan, J., Liman, J. (2014). Burns Registry Of Australia And New Zealand Annual Report 2013-2014.
2. AIHW: Pointer S 2014. Hospitalised injury in children and young people 2011-12. Injury research and statistics series no. 91. Cat. no. INJCAT 167. Canberra: AIHW.
3. Duke, J., Rea, S., Boyd, J., Randall, S. and Wood, F. (2015). Mortality After Burn Injury in Children: A 33-year Population-Based Study. PEDIATRICS, 135(4), pp.e903-e910.

This checklist is for general information only. Please consult Kidsafe SA or a health professional for specific information relating to your circumstances and your child.

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