
Burns and scalds - children

Summary

- Keep hot drinks and pot handles out of reach of children.
 - Never leave children alone in the bathroom or kitchen.
 - If a child is burned, apply immediate first aid by placing the burn under cool running water for a minimum of 20 minutes.
 - Dial triple zero (000) for an ambulance if the injury is severe.
 - Do not use butter, oils, ointments or ice to treat burns as these can further damage the skin.
 - The best way to prevent scalds in the bathroom is to reduce the delivery temperature of the hot tap water at the basin, bath and shower to 50°C. By law, all new hot water systems now have this setting.
 - The recommended bathing temperature for young children is 37 to 38°C.
-

Children are curious and like to explore their surroundings. They don't know that hot water and hot drinks can cause burns. A child's sensitive skin burns far more easily than adult skin.

Burns and scalds are a major cause of serious injury in children from newborn to 14 years old. Children under four years, especially those aged between one and two years, are most at risk due to their increased mobility and natural curiosity.

A severe scald can cause a serious injury and may mean a long stay in hospital. It may also require painful skin grafts and years of treatment, and can result in permanent scarring. A severe scald over a large skin area can cause death.

Causes of burns and scalds

Scalds are burns from hot liquids or steam. Any hot substances can scald a child.

Treat all hot things as if they are as dangerous as fire. In fact, everyday items used in and around the house cause the most burn and scald injuries.

These include:

- hot drinks such as cups of tea and coffee
- water from saucepans, kettles, jugs, billies, urns and thermoses
- hot food solids and saucepans of hot liquid
- coal ashes
- friction burns – for example, treadmills
- running hot water from taps, showers and bath water
- lighters and matches
- fat and hot cooking oil
- steam and vapour
- vehicle exhausts.

Times when injuries are likely to happen

Children are most at risk when you are:

- in a hurry, under a lot of pressure, busy or have too many things going on at the same time
 - entertaining
-

- not feeling well
- distracted
- tired, or when your child is tired
- away from home, visiting friends or family, or on holiday and out of routine.

Setting a routine can help

Between 4 pm and 7 pm is a busy time for families, and it's easy to become distracted by competing demands. Setting a routine can help to reduce the risk of distractions that may lead to burns and scalds. Some suggestions include:

- Feed your toddler their main meal at lunch time, and serve them something light that you don't need to cook in the early evening.
- Set bath time for your baby during quieter times during the day when there are fewer competing distractions. (Occasionally, you can give your baby a wipe instead of a bath.)
- Prepare the evening meal earlier in the day when you are less likely to be distracted by competing family demands.

Preventing burns and scalds in the bathroom

The bathroom is one of the most hazardous rooms in the house for a baby or child. Scalds and burns can occur there, as well as falls, poisoning and drowning. Most hot tap water scalds occur in the bathroom.

There are a number of ways to protect your child against serious injury in the bathroom. Some suggestions include:

- Use a bath thermometer to make sure the bath water is always a safe and comfortable temperature. The recommended water temperature for bathing young children is between 37°C and 38°C.
- Always turn the cold water on first when running a bath and turn it off last to cool the spout.
- Non-slip suction mini bath mats can help prevent falls in the bath. Soft bath spout covers can help to reduce the risk of injury from falls and help to prevent burns and scalds.
- Keep the bathroom door closed when not in use. You may wish to put a lock or restraint on the outside of the bathroom door (out of reach of children, but accessible to adults in case of emergency).
- Always remain within arm's reach of children in the bath. Take the child with you if you have to answer the door or telephone.

Turn your hot water down

The average delivery temperature of domestic hot water is 70°C. A much safer temperature for domestic hot water is 50°C. This is because water at a lower temperature takes longer to cause injury. For example:

- At 60°C, it takes one second for hot water to cause third-degree burns.
- At 55°C, it takes 10 seconds for hot water to cause third-degree burns.
- At 50°C, it takes five minutes for hot water to cause third-degree burns.

To reduce the risk of injury to your child from hot water scalds, it is recommended that you have a device installed to control the delivery temperature of bathroom hot water to a maximum of 50°C.

Talk to your **Licensed or Registered Plumbing Practitioner** who can recommend options including:

- **tempering valves** – these are fitted to the water pipeline and mix hot and cold water to a specific temperature, adjustable between 35°C and 50°C
- **hot water shutdown devices** – these are fitted to the end of a tap and automatically cut off water flow once the water reaches the pre-set temperature.

By law, all new hot water systems are now required to comply with the Victorian Plumbing Regulations 2018, which limit hot tap water to no more than 50°C in bathrooms at the basin, bath and shower in new houses and new renovations. The only exceptions to this are premises intended for children and the elderly, such as early childhood centres, schools and nursing homes. These have a temperature limit of 45°C.

Remember that the recommended bathing temperature for young children is between 37°C and 38°C, so cold water still needs to be mixed with water from the hot tap.

Preventing burns and scalds in the kitchen

Some simple steps you can take to prevent burns and scalds in the kitchen include:

- Never leave cooking unattended.
- Always supervise your children in the kitchen.
- Keep hot drinks and handles out of reach of children.
- Put your baby down somewhere safe if you are going to drink something hot.
- Use non-slip place mats instead of tablecloths.
- Install stove and oven guards.
- Use the back hotplates of the stove before using the front ones and turn handles of saucepans in towards the back of the stove, out of reach of small children.
- Keep hot drinks away from the edge of the table or bench and, where possible, use a cup with a lid. You never know when the baby will be able to reach or when a crawling infant will start to toddle. Make it a habit from the moment they are born to keep hot drinks out of their reach.
- Never carry hot drinks while children are playing underfoot or while holding children. Make sure your care extends outside your home, when visiting relatives and friends or attending playgroups.
- Use a cordless kettle to prevent a child pulling over the kettle, or make sure cords are well away from the edge. Empty any unused water out of the kettle after boiling.
- Give toddlers their own special mug so they don't drink from an adult mug or cup, which may contain liquid that is too hot.
- Carry plates to pots, not pots to plates.
- Serve cold drinks when children are present and have a tea break when they are sleeping.
- Your toddler may be safer in the playpen or in the highchair for a short time when you are very busy in the kitchen, or you could use a child safety gate to restrict access to the kitchen.

Read more about preventing burns in [Child safety injury and prevention](#).

First aid advice for burns

Stop the burning process while considering your own safety by:

- If your child's clothing is **on fire**, get them to:
 - **stop** running
 - **drop** to the floor
 - **cover** their face with their hands
 - **roll** on the floor to put the fire out.

If someone's clothes are on fire and they can't stop, drop, cover or roll (such as a baby or young child), **extinguish the flames with a woollen blanket**.

- If the source of the burn is **electrical** – do not touch the person while they are still in contact with the current. Turn off the current at the switch.
- If the source of the burn is **chemical** – remove the burning agent and wash with cool water for 20 minutes. Do not allow the chemical agent to touch your skin.

Immediate first aid will reduce the severity of a burn. If someone has received a burn:

- Remove any clothing or jewellery near the burn, unless it is stuck to the skin.
- **Apply cool running water (not ice or iced water)** to the burn for at least 20 minutes (useful for up to three hours after the burn). Keep the child warm by placing a blanket on the unburnt areas.
- Cover the burn using a clean dressing, a clean sheet, a clean non-fluffy towel/tea towel or cling film.

- **If the burn is severe or spread over a large area, keep the child warm and calm, and dial triple zero (000) to call an ambulance.**
- Burns that involve the face, hands, feet, genitals or bottom, or that are larger than a twenty-cent piece, require urgent medical attention.

Read about what to do if a **chemical burn affects someone's eyes**.

What not to do for burns and scalds

If a child is burned, there are a few things you should not do, including:

- Never use butter, oils or ointments to cover the burn, as they may retain the heat and make the injury worse.
- Never use ice or iced water as this can make the burn injury worse and also cause the child's body temperature to drop.

Home safety and first aid advice

The Royal Children's Hospital Community Information team (formerly Safety Centre) in Melbourne holds first aid courses for the public. The **six-hour paediatric emergency care course** is particularly helpful for parents, grandparents, nannies and childcare providers. You can also contact the Community Information telephone line on (03) 9345 5085 for advice plans and safety products to reduce the risk of burn injuries in your home.

Other organisations that offer first aid training in Victoria include:

- **St John Ambulance Australia (Victoria)**
- **Australian Red Cross**
- **Life Saving Victoria**.

You can also choose to search for a first aid training provider in your area.

Where to get help

- **Community Information (formerly Safety Centre) telephone line**, The Royal Children's Hospital Tel. **(03) 9345 5085**
- **Kids Health Info fact sheets**, The Royal Children's Hospital
- **Kidsafe Victoria** Tel. **(03) 9036 2306**
- Hardware and bathroom suppliers
- A qualified plumber or gasfitter

This page has been produced in consultation with and approved by:

Kidsafe Victoria

Content on this website is provided for information purposes only. Information about a therapy, service, product or treatment does not in any way endorse or support such therapy, service, product or treatment and is not intended to replace advice from your doctor or other registered health professional. The information and materials contained on this website are not intended to constitute a comprehensive guide concerning all aspects of the therapy, product or treatment described on the website. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions and to ascertain whether the particular therapy, service, product or treatment described on the website is suitable in their circumstances. The State of Victoria and the Department of Health & Human Services shall not bear any liability for reliance by any user on the materials contained on this website.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2020 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.