SCALDS

Around 1200 Australian children under 5 years of age go to hospital emergency departments each year for the treatment of scalds. This is equivalent to 23 young children a week, or more than 3 a day.

About 1 in 4 of these children (300 annually) go on to be admitted to hospital.

Scalds Often Severe

Of young children admitted to hospital for scalds, 1 in 5 are injured so severely that they need to be in hospital for at least a week.

Most hospitalised children need repeat visits, and often, multiple operations.

Apart from the pain, suffering and scarring that can result, scalds can be expensive to treat. One case of a hot water scalding in the bath involved an initial stay in hospital of 101 days and a medical cost of over $1 million.

How Scalds Happen

A scald is a burn injury caused by hot liquid, hot vapor or steam. For babies and young children, scalds are commonly associated with:

- Hot drinks
- Water being boiled for drinks
- Cooking and hot food
- Hot tap water

Hot Drink Scalds

Hot drink scalds usually involve a young child pulling a cup down on itself; pulling down on an item (e.g. a tablecloth) that causes a drink to fall; or running into/being held by someone who has a drink and spills it.

Injuries are usually to the head, face, chest and hands.

Hot drink scalds can happen quickly, often with adults nearby who do not realise a child is reaching for the hot drink until it is too late to stop them.

Children aged 1 to 2 years are most likely to be scalded in this way.
Hot Tap Water Scalds

The bathroom accounts for 80% of all hot tap water scalds.  

36% of these scalds are caused by hot water already in a bathtub, e.g. when a child falls or is placed into it. A further 27% occur when a child is in the bath and the hot water is turned on. Smaller numbers occur in the shower and the hand basin.

Scalds in the Kitchen

Many scalds occur in and around the kitchen when younger children pull down hot items, or slightly older children try to “help”.

Electric kettles pulled by the cord, saucepans or cooking implements pulled by the handle, and plates of hot food on the table are often involved.

These scalds can involve relatively large amounts of very hot liquid falling onto the child’s head and upper body.

Callum’s story

On a Saturday morning about 9 am, 14-month-old Callum was playing in the backyard with his sister when his dad John started running a hot bath to soak in before he went to play football.

John went into the kitchen to get the crossword, and was chatting to Callum’s mum Nicki when they heard a noise, some sort of gasp.

They ran the three metres to the bathroom and found Callum sitting with one leg raised in about 5 cm of hot water. He had probably gone in headfirst and put out his hands, which turned him around.

Nicki pulled him out and jumped straight into the shower, stripping off his T-shirt and nappy. He was still not making any loud noise, but his skin came away in sheets.

After about 10 minutes cooling his burns, his parents bundled Callum into the car and rushed him the short ride to the hospital.

Callum was in the water for only about nine seconds. He was badly scalded over a quarter of his body, on one leg, the underside of his wrists, between his fingers and the tops of his feet (the soles were hardened and didn’t scald), with splash scalds on his chest. He was in major pain and was flown to the capital city that night.

Callum was in the burns unit for seven weeks and had to learn to walk again. He wore pressure bandages and kept going back for treatment for a number of years.

When Nicki and John measured the temperature of their hot water they found it to be about 70°. Their new system has the temperature limited to the recommended 50°.

More ‘Real life’ Cases

1. Playing, toddler knocked coffee table; scalded by cup of tea.
2. Three-year-old accidentally pushed into mum while she was making formula; scalded by hot water.
3. Six-month-old in baby walker reached up and pulled on cord of kettle; spilt boiling water over self.
4. Watching grandmother, toddler pulled handle on pot with boiling water.
5. Crawling in kitchen, 10 month old pulled self up using tablecloth; hot soup fell on her.
Prevention

Young children love to explore, touch, climb and grab, but do not understand dangers like hot water or hot drinks. Here are some ways to keep them safe from scalds:

Safety with Hot Tap Water

- Control the temperature of your bathroom hot tap water to a **maximum of 50°C**. This temperature is required for new homes under the plumbing code. Your licensed plumber can tell you how best to achieve this.

- Always test the water’s temperature before bathing a child. Use the inside of your wrist. Hold it in the water for a slow count of five. It should be comfortably warm, not hot. **Note:** the maximum recommended temperature for bathing a baby is 38°C.

- Child resistant taps/tap covers can help, but won’t stop a child falling into a bath that is already run.

- When running a bath always run the cold water first (and turn it off last).

- Always stay with children when they are in the bathroom. Take them with you if you have to leave the room. Avoid leaving them in the care of older kids.

- Turn taps off tightly and keep the bathroom door closed when not in use.

Safety with Hot Drinks

- **Keep hot drinks out of reach.** Place drinks up high, rather than on low tables. At the table, use non-slip place mats rather than tablecloths, and keep drinks toward the centre.

- Avoid nursing your baby when having a hot drink. Take tea breaks when your toddler is resting or sleeping.

- Use a stable, broad-based mug.

- Avoid putting hot drinks in a cup your child usually drinks from, or allowing your child to sip from your hot drink.

Safety in the Kitchen

- Separate young children from scald hazards. In particular, keep them out of the kitchen or cooking areas during meal preparation.

- Keep kettles, jugs and teapots away from the edge of benches and tables.

- Use cordless kettles, curled cords or hook cords up to keep them from dangling within children’s reach.

- Get in the habit of emptying kettles immediately after use.

- Install a stove guard to prevent children pulling objects off the cook top.

- Turn saucepan handles away from the stove-front. If possible, use the rear hot plates on the stove, rather than the front ones.

  Carry plates to the stove, rather than the pots to the plates.
First Aid for Scalds

- If your child is scalded, **every second counts**. Cool the scald immediately in or under cool running water for 30 minutes and seek medical attention.

- Remove any clothing at once if you can. Clothes hold in the heat and can cause a deeper scald. Leave clothing on if stuck to the skin.

- Never use ice, oil or butter, soy sauce or ointments. These can damage the skin further.

- Keep the child warm with a clean blanket and comfort them. Seek medical advice.

- Seek medical advice if the burn or scald is inside the mouth.

- **In an emergency dial 000 for an ambulance.**

**Importance of First Aid**

A burn can actually be less painful the further it burns into the skin. Imagine a cigarette burning down: the ash is the skin burning away. As the pain lessens, we assume that the burn or scald has stopped, but it hasn’t.

By maintaining cold running water onto the injured area, you can stop the degree of the injury and prevent possible scarring and ongoing medical attention.

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**Did You Know?**

1. Hot water burns like fire. At 65°, hot water will severely scald a child in less than $\frac{1}{2}$ a second. The temperature of the hot tap in most Australian homes is about 65°. This is 15° more than the ideal maximum safe temperature of 50°. At 50°, hot water takes 5 minutes to cause a major burn.

2. Most adults shower at only 38° to 42°.

3. Hot water can scald for up to 30 minutes after it has boiled. A fresh, piping hot drink can scald in a second.

4. A cup of hot liquid spilled over a baby or toddler is equivalent to a bucket of hot water being spilled over an adult.

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Fact Sheets