

# Safety Fact Sheet

## Hot Water



### What is a scald?

A scald is a burn caused by hot liquid or vapours.<sup>1</sup>

### How may a child be injured?

#### Burns

A child is most likely to be injured in the home, with most scalds occurring largely due to:

- Hot drinks
- Children can pull hot drinks such as tea and coffee over themselves.
- Foods, fats and cooking oils
- Children can sustain burns when they have access to the kitchen while others are cooking. Burns from hot noodles in a cup are becoming an increasing cause of injury, with the liquid from the cup spilling onto their bodies. Children can also sustain burns when they reach up to pull hot liquids out of a microwave, or down from the stove top.
- Hot tap water
- Hot tap-water burns often occur in the bathroom, mainly from immersion in baths containing water heated to unsafe temperatures, or as a result of young children turning on hot taps whilst in the bath. Water at 65°C produces a deep burn in less than a second; at 60°C, five seconds and at 55°C, thirty seconds. With water at 50°C, it takes five minutes to produce a deep burn.<sup>2</sup> Therefore, lowering the temperature that water is delivered to your bathroom to 50°C (by asking a plumber to install a recommended device) gives people time to move away and avoid serious burns.

### How common are these injuries?

In recent years (1999-00 to 2003-04), young children have had the highest rates of hospital admissions due to burns in Australia. During this period, 12,159 cases involved children less than 4 years old with 63% of burn related hospital admissions for children in this age group occurring as a direct result of scalds.<sup>3</sup> The majority of these injuries occurred in the home and are largely due to hot drinks, foods, fats and cooking oils, and hot tap water.

### Is there a Law or an Australian Standard for hot water systems?

The law requires newly installed hot water systems to deliver water to any outlet primarily used for personal hygiene purposes, such as basins, baths and showers, at a temperature no greater than 50°C in domestic settings (AS/NZS 3500.4:2003 : Plumbing and drainage - Heated water services). Older homes may not have this tempering device installed, however it is possible to add this device to any bathroom.

### Remember:

#### Safety Devices

- Contact a licensed plumber for the installation of a temperature control device to deliver water at a temperature no greater than 50 degrees celcius in personal hygiene areas.

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- Child resistant taps can also be installed to stop children from turning on the taps, but they do not reduce the hot water temperature.

### Supervision

- Young children should never be left alone in the bathroom.
- Never leave a toddler in the company of another small child.
- Take the phone off the hook or turn the answering machine on before running the bath for young children so that you are not distracted while children are in the bath.
- Keep the bathroom door closed when the bathroom is not in use.

### Running a bath

- To run a bath, always turn on the cold water tap before the hot water tap and turn the hot water tap off before the cold water tap when filled. The same applies when taking a shower.
- Always check the temperature before putting a young child in the bath. You may check the temperature by dipping your elbow in the water or by using a bath thermometer. For small children, we recommend a maximum of 40°C.

### Cooking

- Use the back stove elements to cook.
- Turn saucepan handles to the back.
- Use a barrier to keep young children out of the kitchen when cooking.
- Push the kettle and other appliances to the rear of the bench.
- Empty unused boiled water from the kettle.
- Use a cordless kettle or a cord curler.
- Do not throw water on burning oil. Water can cause the fire to spread and cause serious burns.
- Children should eat hot noodles at a table so they do not spill in their lap.

### Microwave

- Do not heat baby bottles in the microwave.
- Always follow the recommended cooking time on labels. Over-heating food and liquids may result in it exploding.
- For older children, make sure microwaves are at a level where they are not reaching high to remove food from the microwave.

### Hot Drinks

- Do not hold a young child while you are holding a hot drink.
- Do not leave hot drinks in reach of young children.
- Do not use table cloths as these can be pulled down by young children.

<sup>1</sup> Gennaro, A.R., Nora, A.H., Nora, J.J., Stander, R.W. and Weiss, L. (eds) (1979) *Blakiston's Gould Medical Dictionary: Fourth Edition*. USA: McGraw-Hill Book Company.

<sup>2</sup> Public Health Association of Australia (2005). *Hot Water Temperature and Scald Burns*. Public Health Association of Australia Inc. Available: [http://www.phaa.net.au/documents/policy/policy\\_injury\\_hot\\_water.pdf](http://www.phaa.net.au/documents/policy/policy_injury_hot_water.pdf). Accessed 9th January 2008.

<sup>3</sup> Harrison, J and Steel, D. (2006) *Burns and Scalds*. AIHW cat. no. INJCAT 92 Canberra: Australian Institute of Health and Welfare.