Public Health Association of Australia:
Policy-at-a-glance – Hot Tap Water Temperature and Scalds
Policy

Key message: PHAA will advocate for –

1. Ongoing policy and legislative commitment to heated water temperature regulations.
2. Uniform interpretation, application and implementation of the Plumbing Code in All States and Territories.
3. State and Territory governments to provide rebates for the installation of tempering valves for those with the least resources to reduce risk of scalds whilst addressing requirements for prevention of legionella bacteria.
4. Collaborative efforts between health authorities, local governments and industry groups to deliver education that highlights the potential danger of hot water and the benefit to be gained by use of hot water mixing valves to reduce heated water temperature to 50°C at the point of delivery in bathrooms.

Summary: Each year in Australia around 5,800 people are hospitalised as a result of a burn or scald. Scalds resulting from contact with hot drinks, foods, fats, cooking oils and hot water comprise around 45% of all burn injury-related hospitalisations in Australia. Hot tap water scalds have been shown to be particularly amenable to prevention by reducing the temperature of water delivery from hot taps through use of tempering or hot water mixing valves.

Audience: Federal, State and Territory Governments, policy makers, program managers and industry groups.

Responsibility: PHAA’s Injury Prevention Special Interest Group (SIG).

Date policy adopted: September 2016

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Hot Tap Water Temperature and Scalds Policy Statement

The Public Health Association of Australia notes that:

1. Burns and scalds are devastating injuries which may result in lifelong physical impairment and ongoing psychological consequences.¹

2. Each year in Australia around 5,800 people are hospitalised as a result of a burn or scald.² Scalds resulting from contact with hot drinks, foods, fats, cooking oils and hot water comprise around 45% of all burn injury-related hospitalisations in Australia.³,⁴

3. Hot tap water scalds are important as they can involve a greater body surface area than other scalds,⁵ and some evidence suggests that there is a higher mortality rate for hot tap water scalds than other scalds.⁶ Hot tap water scalds account for approximately 8% of burns resulting in hospitalisation among children aged 0-4 years, and 6% of all burns resulting in hospitalisation.⁷

4. Groups most at-risk for hot tap water scalds include young children aged 4 years and under and older persons.⁸ Although these vulnerable groups are at increased risk, a third of all hospitalisations for hot water scalds in NSW for the years 1999-2007 were for adults (24-65 years)⁹ highlighting the risk of hot tap water to all age groups.

5. Almost 90% of hot tap water scalds requiring admission to hospital occur in the home¹⁰ and over 90% are sustained in the bathroom, primarily as a result of immersion in baths containing water heated to unsafe temperatures.¹¹

6. The higher the water temperature the shorter the exposure time required to produce a full thickness scald. At 70°C a full thickness scald will occur in less than one second, at 60°C in around five seconds and at 50°C, five minute exposure is required to produce a full thickness scald.¹² Hot tap water scalds have been shown to be particularly amenable to prevention by reducing the temperature of water delivery from hot taps via tempering valves.¹³,¹⁴

7. Heated water must be stored at a minimum temperature of 60°C, to inhibit the growth of Legionella bacteria.¹⁵ Hot water tempering valves allow for water to be stored at temperatures which prevent growth of legionella bacteria whilst ensuring hot water is delivered at temperatures which can reduce the risk of hot water scalds.

8. The Plumbing Code of Australia (PCA)¹⁶ sets out the requirements for water storage and use of tempering valves. The PCA is given legal effect by enabling legislation in each State and Territory. However States and Territories can adopt local variations to the Code.
PHAA Policy Statement on: Hot Tap Water Temperature and Scalds

9. The downward trend in hot tap water hospitalisations was found for infants and toddlers but not those aged over 65 years, and may reflect that older people are more likely to occupy older houses that they have lived in for a long time which are not subject to recent changes to the regulations.

10. Differentials in hospitalisation rates for hot tap water scalds between persons in the highest and lowest socioeconomic areas suggests the cost of installing a tempering valve may be a barrier to uptake for lower socioeconomic groups.

The Public Health Association of Australia supports the view that:

11. Decreasing the temperature of hot tap water delivered to bathing areas is an effective preventive measure and that lowering temperatures to 50°C at the point of delivery through the use of tempering valves will significantly reduce the risk of hot tap water scalds.

12. Although regulations are in place, further safety gains can be made. Increasing the scope of existing regulations to include all new heated water systems is recommended. As a hot tap water unit may be expected to function for between 5 and 10 years, almost a full coverage of homes in Australia could be achieved within a decade.

13. Increases in the uptake of tempering valve installation could be achieved by providing rebates for the installation of tempering valves for those with the lease resources.

The Public Health Association of Australia resolves that:

The National Office and Branches, with advice from the Injury Prevention SIG, will advocate for:

14. Policy and legislative changes to increase the scope of the heated water temperature regulations to include all domestic residences.

15. Uniform interpretation, application and implementation of the PCA in all States and Territories.

16. State and Territory governments to provide rebates for the installation of tempering valves for those with the least resource.

17. Collaborative efforts between health authorities, local governments and industry groups to deliver education that highlights the potential danger of hot water and the benefit to be gained by reducing heated water temperature to 50°C via hot water tempering valves in bathrooms.

ADOPTED 2012, REVISED AND RE-ENDORSED IN 2016

First adopted at the 2012 Annual General Meeting of the Public Health Association of Australia. The latest revision has been undertaken as part of the 2016 policy review process.
References


3 Harrison J, Steel D. Burns and Scalds. South Australia: Research Centre for Injury Studies, Flinders University. 2006.

1 Ibid


1 Ibid (3)


1 Ibid (5)

1 Harvey LA, Poulos RG, Finch CF, Olivier J, Harvey JG. Hospitalised hot tap water scald patients following the introduction of regulations in NSW: Who have we missed? Burns. 2010;36:912-9.


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