

Position Statement on the danger of tap water scalds

December 2010

Scald due to overly hot tap water are a cause of severe injury in very young children and a source of tremendous pain, requiring multiple hospitalisations and lengthy treatment resulting in permanent disability or disfigurement and even death.¹ Hot bath water is one of the most common causes of serious scald injuries among young children.² Every year in the United Kingdom for example, approximately 500 children under the age of five are hospitalised due to a severe scald caused by bath water, over 20 of whom die of their injuries and a further 2,000 children are seen in the emergency department for bath water scalds.³

Scalds are also expensive to treat due to their severity and can cost as much as 290,000 € per severe injury.³ Research suggests an inequality in tap water scald rates, with children of lower socioeconomic backgrounds having higher risk of severe scald injuries at home and higher rates of scald related hospitalisation than children from higher socioeconomic backgrounds.³

Tap water scalds are preventable through modifications in the home environment. Possible modifications include installing boiler management systems in residential buildings, reducing the temperature setting of gas and oil water heaters in single-family units, installing a master thermostatic mixing valve at the water heater and / or installing thermostatic mixing valves on individual bath taps.

A thermostatic mixing valve is a temperature-limiting device which can be fitted to a water heater, spout or bath tap to mix in cooler water as needed at the point of output, while allowing water to be stored at a higher temperature.⁴ To date lowering the water exit point temperature has not been shown to increase the risk of Legionnaires' disease, a form of pneumonia, however lower water temperature legislation has been shown to effectively reduce the number of scald injuries.⁵⁻⁷ Reducing the temperature of tap water also provides the further benefit of reducing energy costs and greenhouse emissions.⁸

Currently there are no European-wide regulations concerning the maximum temperature of domestic hot water at the point of delivery to the consumer, e.g. from the tap in the bath.⁹

As hot tap water scalds pose a major threat to the safety of children in Europe the European Child Safety Alliance recommends the following actions:

- That the European Commission initiates legislation which requires all homes, including owners of rental dwellings to have a controlled bathroom water temperature so that the water exiting the taps does not exceed 50°C.
- That Member States adopt, implement and enforce legislation that requires water exiting bathroom taps to not exceed 50°C in order to reduce the risk of severe scalds.
- That the European Commission supports a European-wide campaign to coincide with the introduction of EU and national policies to control maximum water temperatures in bathroom taps to reduce scalds.

By limiting the maximum temperature of domestic hot water taps to 50°C in the European Community, severe hot water burns and permanent disability to children will be reduced.

This position statement is supported by the following European Child Safety Alliance country partner organisations:

*Grosse schuetzen Kleine
Austria*

*Norwegian Safety Forum
Norway*

*Kuratorium fuer Verkehrsicherheit
Austria*

*Institute of Public Health, Jagiellonian
University
Poland*

*Kind en Gezin
Belgium*

*Portuguese Association for Child Safety &
Injury Control
Portugal*

*OIVO-CRIOC
Belgium*

*Institute of Public Health
Slovenia*

*Center for Injury Prevention, Charles
University
Czech Republic*

*Ministry of Health
Spain*

*National Institute of Child Health
Hungary*

*Spanish Paediatric Surgeon Society
Spain*

*Icelandic Safety House
Iceland*

*The Swedish Civil Contingencies Agency
(MSB)
Sweden*

*Population Health: Children and Young
People's Team
Health and Safety Executive
Ireland*

*The Child Safety Council
Sweden*

*National Center for Children's Safety and
Health
Israel*

*Swiss Council for Accident Prevention
Switzerland*

*Ministry of Health
Latvia*

*Royal Society for the Prevention of Accidents
United Kingdom*

*Ministry of Health
Luxembourg*

*Child Accident Prevention Trust
United Kingdom*

*Institute of Public Health
Republic of Macedonia*

*Children in Wales
Wales*

*The Consumer Safety Institute
The Netherlands*

*Wales Collaboration for Accident Prevention
and Injury Control
Wales*

The following European organisations also agree and support this position:

European Burns Association (EBA)

European Public Health Alliance (EPHA)

Health and Environment Alliance (HEAL)

International Society for Child and Adolescent Injury Prevention (ISCAIP)

References

1. Vincenten J. Priorities for Child Safety in the European Union: Agenda for Action. Amsterdam, ECOSA, 2004
2. RoSPA Press Office: Press Release; November 6, 2006; Action Needed To Cut Burns and Scalds Among Children
3. Child Accident Prevention Trust. <http://www.childsafetyweek.org.uk/services/parents-area/key-child-safety-topics/burns-and-scalds/> Preventing bath water scalds using thermostatic mixing valves. Factsheet. Accessed April 12, 2005.
4. The Royal Society for the Prevention of Accidents-Home Safety Department. Can the Home Ever be Safe: The need to improve safety in the built environment of homes and gardens. Accessed April 11, 2005. <http://www.rospa.com/homesafety/info/safe.pdf>
5. Erdmann TC, Feldman KW, Rivara FP, et al. Tap water bum prevention: the effect of legislation. *Pediatrics* 1991;88:572–7.
6. Safe Kids Canada. Hot Water Burns Like Fire: Discussion Paper on Tap Water Scalds Prevention Safe Kids Canada - July, 2005. Accessed April 10, 2005. <http://www.sickkids.ca/SKCPublicPolicyAdvocacy/section.asp?s=Tap+Water+Scalds&SID=13747>
7. Hockey R. Safe tap water and the risks of scalds and legionella infection. *Injury Prevention* 2002; 8:170.
8. Corrigan P et al. Randomised Controlled Trial of Boiler Management Systems in Social Housing in Camden: An Assessment of Health, Environmental and Economic outcomes. London School of Hygiene and Tropical Medicine. Camden Primary Trust. November 2009.
9. The French Consumer Safety Commission. Recommendation on the Danger Of Burns Presented By Domestic Hot Water 10/03. http://www.securiteconso.org/notice53.html?id_article=53