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.

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 Fax +31 20 511 45 10
secretariat@childsafetyeurope.org http://www.childsafetyeurope.org

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

Kuratorium fuer Verkehrsicherheit
Austria

Kind en Gezin
Belgium

OIVO-CRIOC
Belgium

Center for Injury Prevention, Charles University
Czech Republic

National Institute of Child Health
Hungary

Icelandic Safety House
Iceland

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

National Center for Children's Safety and Health
Israel

Ministry of Health
Latvia

Ministry of Health
Luxembourg

Institute of Public Health
Republic of Macedonia

The Consumer Safety Institute
The Netherlands

Norwegian Safety Forum
Norway

Institute of Public Health, Jagiellonian University
Poland

Portuguese Association for Child Safety & Injury Control
Portugal

Institute of Public Health
Slovenia

Ministry of Health
Spain

Spanish Paediatric Surgeon Society
Spain

The Swedish Civil Contingencies Agency (MSB)
Sweden

The Child Safety Council
Sweden

Swiss Council for Accident Prevention
Switzerland

Royal Society for the Prevention of Accidents
United Kingdom

Child Accident Prevention Trust
United Kingdom

Children in Wales
Wales

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)

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 Fax +31 20 511 45 10
secretariat@childsafetyeurope.org http://www.childsafetyeurope.org

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

The European Child Safety Alliance
PO Box 75169 1070 AD Amsterdam The Netherlands Tel. +31 20 511 45 13 Fax +31 20 511 45 10
secretariat@childsafetyeurope.org http://www.childsafetyeurope.org