

**Office of Integrated Health
Health & Safety Information**

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Scalding

Scalding incidents cause life threatening and painful injuries.

“Scalds, which are burns attributed to hot liquids or steam, account for 33%--58% of all patients hospitalized for burns in the United States (CDC MMWR, 2009) and people with disabilities are at a high risk of these burns.

Caregivers must be highly diligent to prevent these burns from occurring in all settings.

People at Risk

According to the American Burn Association (2017), “children, the elderly, and people with disabilities are especially vulnerable to burn injuries. Tap water scalds to older adults or someone with a disability usually happen when they slip or fall in the tub or shower, when a caregiver fails to recognize that the water is too hot, when water temperature fluctuates due to running water in other parts of the home, or when a faucet or plumbing fixture malfunctions and the person is unable to escape a sudden burst of scalding water. “

People over the age of sixty-five have worse outcomes compared to younger people because they have other health issues (CDC MMWR 2009). Other examples of people at high risk for burns include people: with altered sensation or muted pain responses; with health conditions such as diabetes, neuropathy, spinal cord injury and other neurological and circulatory related illnesses; with known skin issues, sensitivity or skin breakdown; who cannot communicate or move away from water if it is too hot, *they are at extremely high risk.*

Burns can happen very quickly!

| Water Temperature: | Time for a third degree burn to occur: |
|--------------------|--|
| 155° F | 1 second |
| 148 ° F | 2 seconds |
| 140 ° F | 5 seconds |
| 133° F | 15 seconds |
| 127 ° F | 1 minute |
| 124 ° F | 3 minutes |
| 120 ° F | 5 minutes |
| 100 ° F | Safe temperature for bathing |

Prevention is the Key

Scalding is preventable. Proper supervision and good home safety plans can help reduce the risk. Prevention requires focus, training, reminders and ongoing monitoring. Providers should have specific protocols in place to ensure prevention. Burns are extremely painful and can have life threatening consequences.

Prevention strategies for reducing the risk and preventing scalds/burns:

- Have a certified plumber help you determine what anti-scalding system is right for your home and personal situation and to assure all of your water systems are working properly and are set up to avoid scalding injuries.
- Increase supervision when a person is in a high risk situation such as toileting, meal time when hot liquids or food are present, during handwashing, cooking and bathing.
- Assure proper water temperature from the taps, during bathing (not too hot or cold) and from the water heater. “Before placing a person into the bath or getting into the tub yourself, TEST THE TEMPERATURE OF THE WATER by moving your hand rapidly through the water for several seconds and use a bath thermometer. A child's delicate skin will burn more quickly than an adult's.” (The Burn Foundation) Always check with the individuals’ health care provider for guidance on the best temperature for bathing based on the individual’s specific health history and personal preferences.
- Remember that you will not be able to accurately feel the water if you are wearing gloves so don your gloves after you confirm the water temperature.
- Assure that the water is not too cold because it can cause significant health problems and can be uncomfortable. Assure the temperature of the room where bathing is taking place is comfortable to avoid chills.
- Water temperature may need to be adjusted for those with fragile skin conditions and for those who are at greater risk due to age (both the young and old) and for those with certain health conditions but it must be warm enough for comfort and to avoid a chill. Check with a health care provider and obtain parameters for a safe bath temperature.
- Keep the bath thermometer readily available to encourage its use.
- Occupational Therapists are a great resource for assisting in writing plans and providing education on kitchen, meal time, and bathroom and water safety.
- Keep pot and pan handles towards the back of the stove and keep a safe zone while cooking.
- Use a tray when serving warm drinks or food and place lids on cups.

For group homes, nursing facilities, day programs and other locations where care of multiple individuals with developmental disabilities takes place; please keep the following in mind:

- Establish agency scald prevention policies, procedures and response plans and train all staff. (Include information for recommended temperatures for water heaters, water from the tap and water temperatures for bathing/showering and on safety precautions where hot water or other liquids are accessible).
- These can include recommended temperatures for bathing and showering with techniques on how to check the temperatures and other procedures for responding to a scald. (See educational materials at sites listed below)
- Follow DBHDS Licensing Regulation 12VAC35-105-280 that states: “Adequate hot and cold running water of a safe and appropriate temperature shall be available. Hot water accessible to individuals being served shall be maintained within a range of 100-110°F. If temperatures cannot be maintained within the specified range, the provider shall make provisions for protecting individuals from injury due to scalding.”
- Identify individuals at risk of burns and develop a scalding risk plan for that individual and their specific needs. Educate all people supporting the individual about this plan.

Response to a Suspected Scalding

Remove the person from the water immediately if they show any signs of distress, pain, the skin becomes pink/red and if you sense something is wrong. Obtain immediate emergency assistance; **when in doubt call 911**.

Do not use home remedies to treat burns instead follow your first aide training and seek out professional medical assistance immediately.

The U.S. Fire Administration recommends the following organizations as trusted and reliable sources for free outreach materials you can use to help increase awareness about burn and scald prevention in your community.

- [American Burn Association](#). The official Burn Awareness Week educator's guide and PowerPoint presentations in English and Spanish. Also, educational resources for a variety of burn awareness campaigns and burn prevention fact sheets.
The American Burn Association and its members dedicate their efforts and resources to promoting and supporting burn-related research, education, care, rehabilitation, and prevention.
- [Centers for Disease Control and Prevention](#). Safety tips and social media tools to help spread the word about children and burn prevention.
As our nation's health protection agency, the Centers for Disease Control and Prevention works to save lives and protect people from health and safety threats.

- [Medline Plus](#). Resources and information you can use for community burn prevention presentations, including online tutorials and videos.
MedlinePlus is the National Institutes of Health's website that brings you information about diseases, conditions and wellness issues in language you can understand.
- [National Fire Protection Association \(NFPA\)](#). A public service announcement (PSA) and safety tip sheet on scald prevention.
The National Fire Protection Association helps to reduce fire loss through consensus codes and standards, research, training and education.
- [Safe Kids Worldwide](#). A fact sheet and educational videos to help prevent burns in children.
Safe Kids Worldwide is a global organization dedicated to preventing injuries in children.

For any questions about this alert, please contact Susan Rudolph at
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References and helpful websites

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