



Department of
Developmental Disabilities

Office of MUI/Registry Unit

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Health & Safety Alert #37-01-13

Hot Water Burns

The purpose of this Alert is to heighten awareness to the danger of burns from hot water. The most common hot water burns occur during baths or showers. Scald burns caused by moist heat can result in significant injuries. The following information identifies burn classifications, treatment options, cause and contributing factors and several ways to prevent burns in the future.

Classification of Burns

1st Degree burn – causes redness and swelling in the outermost layers of the skin.

2nd Degree burn – involves redness, swelling, and blistering. The damage may extend to deeper layers of skin.

3rd Degree burn – destroys the entire depth of the skin.

Did you Know?

- Adults will get 3rd degree burns on exposure to hot water in **less than one second** at 160 degrees and between 9 and 10 minutes at 120 degrees.
- Children will get 3rd degree burns on exposure to hot water in **less than ¼ of a second** at 160 degrees and **just over 3 minutes at 120 degrees**.
- Children are at risk as their skin is thinner than that of adults.
- Individuals, who are elderly, may be less sensitive to extreme temperatures so the withdrawal reflex may be delayed.
- The severity of a burn injury depends on the temperature of the liquid, length of time exposed, age of the victim, and the size of the area affected.
- Only cooling stops the skin from burning.

Treatment

- It is critical to immediately remove non-sticking clothing and apply cool water. This is to begin to cool the skin.
- Wrap the burn loosely in clean cloth. Don't use oils, butter, etc.
- Seek immediate medical attention for all but minor burns.

Causes/Contributing Factors

- Failing to routinely check water temperatures in the home (120 degrees or less).
- Hot water tanks that don't have tempering valves or thermostatic mixing valves (Regular maintenance on these valves 60 – 90 days).
- Failing to test water before individuals enter the bathtub or shower.
- Leaving individuals unattended in the bathtub or shower

Prevention

- Provide appropriate supervision as required to protect individuals during bathing times.
- Make sure all supplies needed for the bath/shower are available prior to entering the bathroom so supervision can be maintained from start to finish.
- Do not allow other interruptions to take away from appropriate supervision (phone calls, doorbells etc...)
- Turn hot water heater thermostat to 120 degrees Fahrenheit or less.
- Install scald resistant faucets, a tempering valve, or a thermostatic mixing valve. (This very simple step is critical to hot water safety and burn prevention).
- Always test the temperature before someone gets in the bathtub or shower. Wait until the tub water is at the depth you want. Test the water with your wrist.

Hot water burns are preventable.....Let's work together to help keep everyone safe.....!!

For questions or comments regarding the above Alert, please contact the MUI/Registry Unit at (614) 995-3810.

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