



## Health & Safety Alert #37-01-09

### Hot Liquid Scalds

The purpose of this Alert is to heighten the awareness of those in the field to the dangers of burns from hot water and hot liquid scalds. Scald burns caused by moist heat can result in significant injuries.

#### Classification of Burns

**1<sup>st</sup> Degree burn** – causes redness and swelling in the outermost layers of the skin.

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

**3<sup>rd</sup> Degree burn** – destroys the entire depth of the skin.

#### Did you Know?

- Adults will get 3<sup>rd</sup> 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 3<sup>rd</sup> 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-stick 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
- Leaving individuals unattended around stoves, toasters, griddles, coffee pots, candles, and cigarettes.

## **Prevention**

- Turn hot water heater thermostat to 120 degrees Fahrenheit or less.
- Install scald resistant faucets, a tempering valve, or a thermostatic mixing valve.
- Always test the temperature before someone gets in the tub or shower. Wait until the tub is at the depth you want. Test the water with your wrist.
- Turn pot handles in or toward the rear of the stove.
- Cook on rear burners of the stove.
- Place hot liquids in the center of tables and away from the edges of the counter.
- Test beverages for extreme temperatures prior to serving.

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

**REISSUED: January 2009**