

# Burns & Scalding: Facts & Prevention

## Facts about hot water & burns

- Young children, older adults and individuals with disabilities are at a higher risk for all types of burn injuries, including scalds.
- Young children and older adults, have thinner skin so hot liquids cause deeper burns with brief overexposure.
- Sensory impairments can result in decreased sensation, especially to the hands and feet, so the person may not realize if something is “too hot”.
- An individual’s intellect, perception, memory, judgement or awareness may hinder his/her ability to recognize a dangerous situation.
- Individuals with disabilities may not be able to appropriately respond and remove themselves from a tub filled with hot water.
- Individuals respond differently to water temperature. What feels warm to one individual will feel hot to another.
- Some individuals have reported that water over 100°F feels very “hot” and have reported feeling pain when water temperatures reach 103°F.

## How to test your water temperatures\*

- Follow the thermometer manufacturer’s recommended instructions for use.
- Measure the hot water temperature prior to heavy use, or at least one hour after, so the hot water has time to recover and heat to its set temperature.
- To ensure accuracy, do not hold the digital thermometer under the running water to measure the temperature.
- Allow the hot water to run for a sufficient amount of time to ensure the water is at its hottest temperature.
- Fill a bowl or cup with hot water.
- Immediately immerse the silver perforated end of the digital thermometer completely into the contained water.
- Keep the digital thermometer in the water until the measurement has stabilized (30 to 60 seconds) then read the temperature.

## How long does it take to cause 3<sup>rd</sup> degree scald burns?

155°F water	1 second
148°F water	2 seconds
140°F water	5 seconds
133°F water	15 seconds
127°F water	1 minute
124°F water	3 minutes
120°F water	5 minutes
100°F water	Safe bathing temperature

## How to prevent scald burns

- Check water temperatures daily at various points to insure that the temperature of hot water available to individuals at shower, bathing and hand washing facilities **does not exceed 110°F**
- Limit access to water temperature controls.
- Water heater thermostats may not be very reliable. Most are marked low-medium-high and do not indicate exact water temperature.
- Install mixing valves and aquastats on plumbing systems.
- Install anti-scald devices on faucets and shower heads. Follow manufacturer’s instructions for proper maintenance and calibration of anti-scald devices.
- When filling bathtub, mix the water thoroughly and check the temperature by moving your elbow, wrist or hand (with fingers spread) through the water before allowing someone to get in.
- Provide constant supervision to anyone who may experience difficulty removing themselves from hot water or people who may not recognize the dangers associated with turning on the hot water.

\*Directions are for use with digital thermometer from: ThermoWorks, Inc., 270 N. Main Street Suite D, Alpine, Utah 84004, Tel: (801) 756-7705 or (801) 756-8948 web site <http://www.thermoworks.com> **If using another type of water thermometer, follow the manufacturer’s recommended instructions for use.**



References: Title 77: Public Health Part 350 Chapter 1: Section 350.3030;  
Scalds: A Burning Issue, American Burn Association, 2000;  
Direct Support Person Training, Illinois Department of Human Services, 2010.  
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