

## The Importance of Thermostatic Mixing Valves to Protect Against Scalding: Part Two

 [carsondunlop.com/training/resources/the-importance-of-thermostatic-mixing-valves-to-protect-against-scalding-part-two](http://carsondunlop.com/training/resources/the-importance-of-thermostatic-mixing-valves-to-protect-against-scalding-part-two)

February 4, 2015

This is Part Two of a two-part post. If you missed Part One, you can read that [here](#).

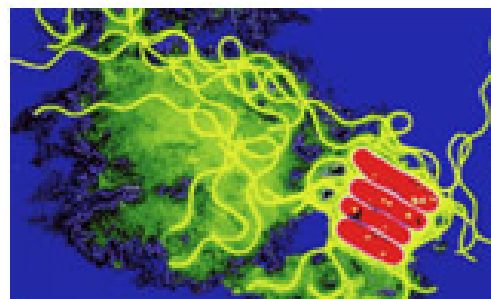
Due to the safety importance of this issue, ensure that the [home inspector training](#) program you select includes training on thermostatic mixing valves, so that you can provide the necessary advice for your clients.

Now that we know how pressure balanced and thermostatic control valves work, we can take a look at why thermostatic mixing valves are the solution.

### Beware of Bugs!

The obvious solution to prevent scalding is to simply turn down the water heater temperature.

Unfortunately, at temperatures under 55°C (130°F), the dreaded Legionella bacteria can still survive. So we have to keep the water in the tank around 60°C (140°F).



### The Importance of the Thermostatic Mixing Valve

These tempering devices are installed at the water heater outlet. If the water coming out of the tank is hotter than 49°C (120°F), the valve will mix in some cold water.

The water in the tank is kept hot enough to ward off bacteria, and people are protected from scalding temperatures.

Another benefit from hotter water in the tank is that less hot water is needed for each shower. That means people should not run out of water so quickly and could perhaps get away with a smaller tank. Sometimes, that's offset by the fact that people take longer showers when they realize they will not run out of hot water.

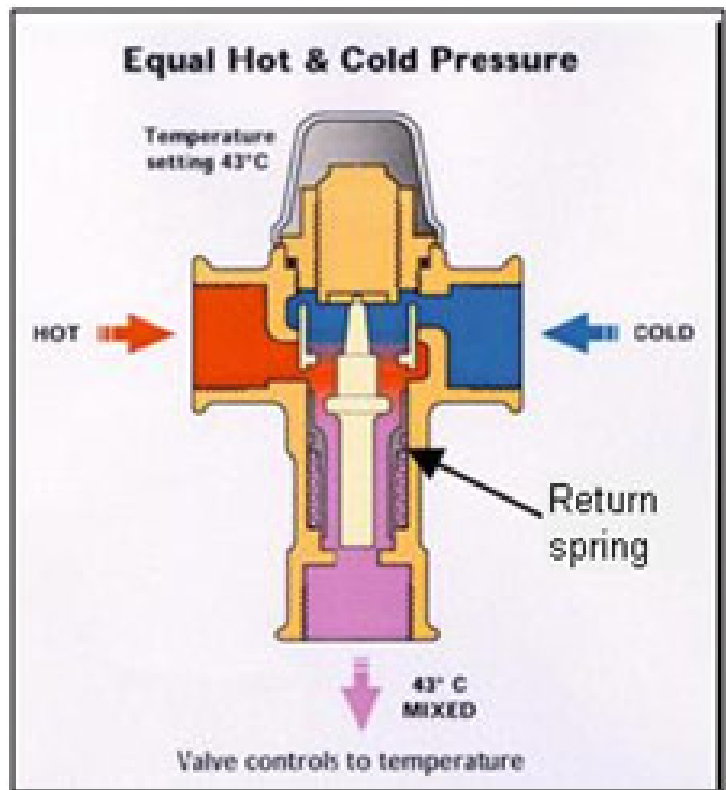


### Other Considerations

There are some situations where it could still be desirable to have the water hotter than 49°C (120°F). These include:

- Clothes washers
- Dishwashers
- Combination or radiant floor heating systems

Where necessary, the hot water piping to these fixtures can bypass the thermostatic mixing valve. To help make your clients' lives easier, remember to discuss these considerations if needed, while you are explaining thermostatic mixing valves.



---

Plumbing, Technical