

## Dead legs in water pipes

Legionella bacteria can be found in water systems in a building and can lead to people developing legionnaire's disease. Plumbers are regularly vigilant with ensuring legionella bacteria doesn't form in HWC's. However, plumbers also need to be aware of other parts of the water system where legionella bacteria can form. A common place that legionella bacteria can form is in dead-legs of water pipes.

Dead-legs are sections of pipe that do not allow the water in the pipe to circulate and/or flow. This can include:

- redundant pipework (e.g. a pipe outlet that the plumber caps off after a renovation)
- outlets that are not used often (e.g. pipes leading to a spare bathroom).

Legionella bacteria can grow in water temperatures between 20-46°C. Therefore, dead legs containing idle water can be a breeding ground for legionella bacteria.

When legionella bacteria forms in dead-legs of a water pipe, it can spread into the flowing water, which leads to the active outlets in the building. From here, people can breathe in the mist from the water that contains the legionella bacteria and get legionnaires disease.

The ministry of health outlines that the people that are of particular risk are:

- those with an impaired immune system
- older people
- smokers and those with alcohol problems
- those with chronic respiratory disorders.

To prevent legionella bacteria forming in dead-legs, the ministry of health recommends that dead legs containing water that is idle for more than a week old should be *"flushed at full flow for a minimum period of fifteen seconds, after the water is delivered at its normal hot or cold temperature"*. Further to this, the Ministry of Health recommends, *"Redundant pipe work containing water that lies idle should be removed"*.

Therefore, it is good trade practice for plumbers to inform homeowners of the need to flush unused water outlets regularly. Further to this, plumbers should remove dead-legs where possible. Where it is not possible to remove a dead-leg plumbers should keep them as short as possible.

For more information, see the Ministry of Health's guidelines [here](#)