

Naturally occurring fluoride in Quilpie's drinking water

Fluoride is a natural element often found in water, plants, rocks, soil, air and some foods. Research shows that fluoride helps protect teeth against tooth decay. Regularly drinking water containing small amounts of fluoride can help reduce tooth decay for people of all ages.

What is the drinking water standard for fluoride?

The Australian Drinking Water Guidelines recommend an upper limit of 1.5 milligrams per litre (or parts per million) of fluoride in drinking water. This is equivalent to one twentieth of a teaspoon of fluoride in a bathtub of water.

Many Western Queensland towns source their drinking water from groundwater (i.e. bores). These water sources can contain natural fluoride levels that are above this limit.

Monitoring of Quilpie's drinking water supply has indicated that it contains naturally occurring fluoride at an average concentration of 1.7 milligrams per litre. This is slightly above the recommended limit in the Guidelines.

Conventional water treatment processes and most domestic water filters do not reduce the level of fluoride present in your drinking water.

What are the risks of elevated levels of fluoride in drinking water?

There are two side effects that have been associated with elevated levels of fluoride in drinking water. The first is dental fluorosis and the second is skeletal fluorosis, which only occurs with very high levels of fluoride in drinking water.

What is dental fluorosis?

The main side effect associated with elevated levels of fluoride in drinking water is a condition known as dental fluorosis.

Dental fluorosis is largely an aesthetic concern and most often occurs as a mild change to the appearance of tooth enamel. It can appear as small, almost invisible, white lines in the enamel. More rarely, and in more severe cases, it can appear as pitting or staining of the enamel.

Dental fluorosis can occur if too much fluoride is ingested when teeth are developing at around one to four years of age. Teeth already present in the mouth are not at risk of developing fluorosis.

The risk of developing dental fluorosis, or experiencing more severe forms of the condition, increases with greater levels of fluoride in drinking water. However occasionally dental fluorosis occurs in developing teeth at relatively low fluoride levels.

Showering or bathing in water containing high levels of fluoride does not increase the risk of developing dental fluorosis.

What can I do to minimise the risk of dental fluorosis?

Where drinking water contains naturally occurring fluoride at a level above the Guideline of 1.5 milligrams per litre, parents can reduce the risk of children developing dental fluorosis by:

- Ensuring children do not take fluoride supplements (e.g. fluoride tablets and/or drops).
- Cleaning children's teeth with low fluoride toothpaste until the age of 18 months, unless otherwise recommended by a dentist.
- If fluoridated toothpaste is used, ensuring only a pea-sized amount of toothpaste is used and that children spit out after brushing and rinse their mouths with water.
- Monitoring and restricting other sources of fluoride in their children's diet (such as seafood and tea, which are known to contain fluoride).
- Providing bottled drinking water where possible and do not substitute bottled drinking water with soft drinks or other drinks high in sugar.
- Breast-feeding infants where possible and using bottled water to add to infant formula.

Help and assistance

For general enquiries contact your local Public Health Unit:

- Darling Downs Phone: 4631 9888

For more information:

- Contact your dental professional
- Visit www.health.qld.gov.au/oralhealth
- Call 13 HEALTH (13 43 25 84) for confidential health advice 24 hours a day, seven days a week
- Email oral_health@health.qld.gov.au

The information in this fact sheet applies only to those parts of Queensland with levels of naturally occurring fluoride above the drinking water Guideline or 1.5 milligrams per litre. It does not apply to locations with standard levels of water fluoridation.

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