



Fluoride

Environment & Waste

Council began fluoridating the town water supply on 7 January 2008.

The decision to fluoridate was made by the Secretary of the NSW Department of Health in December 2006 in line with its policy, after council resolved to seek the department's approval.

What are the benefits of fluoridation?

Water fluoridation provides improved dental health for every community member, regardless of a person's age, income, level of education, or ability to access dental care.

Fluoride acts like a constant repair kit for teeth. A constant supply of low level fluoride can reduce the amount of cavities in a child's baby teeth by as much as 60 per cent and in adults' teeth by nearly 35 per cent.

How is fluoride added to Gosford's water supply?

Gosford's drinking water contains naturally occurring fluoride at a concentration of up to 0.3 parts per million (ppm).

Fluoridation plants are located at Somersby and Woy Woy Water Treatment Plants. Hydrofluosilicic acid is added to the water supply in liquid form through dosing pumps to increase the concentration to 1.0 ppm with precision. The dosed water

is then continually monitored to ensure fluoride levels remain within the optimal concentration range.

What is hydrofluosilicic acid?

Hydrofluosilicic acid is a colourless, tasteless and odourless liquid collected from the purification process of rocks that are high in phosphate. As these rocks are also rich sources of fluoride, an additional step in the process allows fluoride to be collected.

Can you smell or taste fluoride in water?

No. The taste and smell of water is not altered by the addition of fluoride.

Can water fluoridation cause any side effects?

Some people have concerns that water fluoridation may cause serious problems such as cancer, bone fractures, birth defects, Alzheimer's disease and/or allergy. The safety of water fluoridation has been frequently re-evaluated and the best evidence does not link water fluoridation with any of these medical conditions. These tests indicate that the addition of fluoride to the water supply at the optimum level of 1.0 ppm is not harmful or toxic.

The National Health Service Centre for Reviews and Dissemination at the University of York in England undertook a review of 214 of the highest quality water





fluoridation studies in 2000 to assess the benefits and possible side effects of water fluoridation. The review found that water fluoridation helps protect against tooth decay without causing any unwanted effects, apart from dental fluorosis in some people. Other reviews from Europe, North America and Australia also support the safety of water fluoridation.

Dental fluorosis is the mottling of teeth. It may occur in both fluoridated and non-fluoridated water communities where the intake of fluoride is well in excess of the recommended levels. Dental fluorosis can be minimised by proper use of fluoridated toothpaste, particularly in children under six.

Are some people allergic to fluoride?

An allergy is a reaction of the immune system to a specific substance. While some people believe they are allergic to fluoride, the symptoms they complain of could be due to other causes.

We are all exposed to fluoride. It is very common in our environment—it is found in rocks, soil, our water and food. There is no evidence of allergy or intolerance to fluoride as a result of fluoridation of community water supplies.

Should my child continue taking fluoride supplements?

Fluoride supplements used to be recommended as an alternative source of fluoride in non-fluoridated areas. Current evidence indicates that fluoride supplements in the form of drops or tablets must not be used.

Can I use fluoridated water with infant formula?

Infant formula powders were historically marketed with varying but relatively high fluoride content. The infant formulas available now contain very low amounts of fluoride and are safe for consumption by infants when reconstituted using fluoridated or non-fluoridated water—this is the Australian recommendation in relation to infant nutrition.

The Australian recommendation differs from the American Dental Association's recommendations which are specifically relevant to the United States. Some areas in the United States have naturally occurring fluoride at up to 4 ppm—four times higher than the proposed level of water fluoridation in the Gosford area.

Do water filters remove fluoride from the water?

Many home water filtering systems do not significantly alter the fluoride content of water, although reverse osmosis filters do remove most of the fluoride. Check with the manufacturer for details on your filtering system.

Further information

If you would like to know more about fluoride and dental health, please visit the [NSW Health](#), [Australian Dental Association](#), [Centers for Disease Control and Prevention](#) or the [World Health Organisation](#) websites.

