

Fluoride in our water supplies

What is fluoride and why is it added to drinking water?

Fluoride is a mineral that exists naturally in air, soil, fresh water, sea water, rocks, plants and lots of different foods.

According to the Ministry of Health, fluoride prevents tooth decay by strengthening the tooth surface and inhibiting bacteria growth. It also assists in repairing the early stages of tooth decay. The effectiveness of fluoride in dental disease prevention has been reviewed extensively and fluoridation of public water supplies is recommended by many health authorities around the world, including the World Health Organisation (WHO).

Our current role with regard to fluoridation of drinking water supply is to undertake and maintain compliant fluoridation system operations. We dose fluoride at the request of Auckland's legacy councils, who have the power to do so under the Local Government Act 2002 and the Health Act 1956.

Where is fluoride added to Auckland's drinking water?

Fluoride is added at our main treatment plants supplying metropolitan Auckland, with the exception of the Onehunga zone. When we became responsible for water and wastewater services in the Auckland region in 2010, when the Supercity was formed, we didn't make any changes to the fluoridation of water supplies. Fluoride is not added at our rural treatment plants.

Treatment plant	Fluoride added?
Ardmore	Yes
Huia	Yes
Onehunga	No, but this supply zone is fed from the wider network in the event of a plant outage
Waitākere	Yes
Waikato	Yes
Waikato 50	No, but water is blended with water at the neighbouring plant
Pukekohe	Yes
Papakura	Yes

How do we dose treated water with fluoride?

The Ministry of Health recommends the level of fluoride in water supplies be topped up to between 0.7-1.0mg/L. This is in line with recommendations from the WHO.

The Drinking Water Standards of New Zealand specify a maximum acceptable value (MAV) of 1.5mg/L for fluoride. This is also based on the latest WHO guidelines.

At treatment plants where we dose the water with fluoride, it is added as one of the final steps before the water leaves the plant. It is dosed at a specified concentration so there is no risk of dosing a more concentrated solution.

How do we monitor fluoride levels in our drinking water?

Auckland's drinking water undergoes rigorous testing to make sure it is safe to drink.

Our treatment plants use continuous online instruments to monitor fluoride levels in the treated water. Alarms are triggered and dosing stops if the fluoride concentration deviates from the control limits.

We also test our treated water every week to ensure fluoride levels are in the recommended range. These results are [published on our website](#) each month and are also reported in our annual water quality reports.

A brief history of fluoridation in Auckland

- 1966:** Fluoridation of Auckland's bulk water supplies began, under the Auckland Regional Authority (ARA).
- 1979:** Waitemata City Council requested that no fluoride be added to the newly built separate water supply to Huia Village. The ARA agreed.
- 1992:** Watercare was established as a Local Authority Trading Enterprise, assuming responsibility for the provision of bulk water and wastewater services to the seven local councils of Auckland. Advice from the Auckland Area Health Board at the time was to continue to dose fluoride at 0.9 to 1.1mg/L.
- 1995:** Following the release of the new Ministry of Health Drinking Water Standards, we reduced our level of fluoridation to the new recommended range of 0.7-1mg/L.
- 2010:** Amalgamation of the Auckland councils in 2010 resulted in the transition of all water and wastewater services to Watercare. We assumed responsibility for the former council water and wastewater operations. There was no change to the fluoridation of water supplies at this time; the position of the legacy councils was retained.
- 2015:** At the request of Auckland Council, we set the target fluoride dose for our fluoridated supplies at 0.7-1mg/L.
- 2016:** The Health (Fluoridation of Drinking Water) Amendment Bill was proposed to enable District Health Boards to make decisions about fluoridation in their areas, without the requirement for local authorities to consult their communities.
- 2021:** In March, Cabinet agreed to amend the proposed Health (Fluoridation of Drinking Water) Amendment Bill to give the Director-General of Health decision-making powers regarding community water fluoridation, instead of District Health Boards. Public submissions closed in June 2021.

More information

- The Ministry of Health has provided answers to a range of frequently asked questions on water fluoridation on its website here: <http://www.health.govt.nz/our-work/preventative-health-wellness/fluoridation>
- The Guidelines for drinking water quality management for New Zealand can be found here: [https://www.moh.govt.nz/notebook/nbbooks.nsf/0/B97E4331F0C1F869CC257C2E0072BAB9/\\$file/dw-management-drinking-water-guidelines-2017-3rdedn-jun17.pdf](https://www.moh.govt.nz/notebook/nbbooks.nsf/0/B97E4331F0C1F869CC257C2E0072BAB9/$file/dw-management-drinking-water-guidelines-2017-3rdedn-jun17.pdf)
- To learn more about the Health (Fluoridation of Drinking Water) Amendment Bill, go to: https://www.parliament.nz/en/pb/bills-and-laws/bills-proposed-laws/document/00DBHOHBILL71741_1/health-fluoridation-of-drinking-water-amendment-bill