

Submission to Parliamentary Petitions Committee

10 April 2025

Petition request

That the House of Representatives stop water fluoridation.

Petition reason

Many qualified scientists say that exposure to the levels of fluoride in fluoridated communities causes a level of harm comparable to lead. The US National Toxicology Program's 6-year review confirms with that fluoride may lower children's IQ. The Cochrane Review 2015, CATFISH study (2022, UK), and LOTUS study (2023, UK) show little or no benefit to teeth from fluoridated water.

Request to Committee Members

Our submission provides evidence that water fluoridation is causing neurological harm; is not effective at reducing dental decay; that the Ministry of Health's advice is outdated and unscientific; and that New Zealand is an outlier in continuing with fluoridation.

There are many other adverse health effects associated with fluoridation, such as kidney disease, liver disease, hypothyroidism, and osteoarthritis, but we have chosen to leave those aside since the evidence of neurotoxicity is now undeniable.

It was announced this week that the US Centers for Disease Control will be setting up a task force to review its fluoridation policy and the US Environmental Protection Agency announced they will be reviewing their regulatory guidelines. It is highly likely fluoridation will end in the US in the near future.

The Ministry of Health (MoH) refused to condemn lead in petrol and paint for 26 years after the research showing lead's harm was as conclusive as fluoridation evidence is today, and just about the whole world, including the USA, had stopped. We cannot let that happen again with fluoridation when the health of all New Zealanders, including those still to be born, will be needlessly adversely impacted.

To that end, we request that our petition be forwarded to the Health Select Committee where a thorough review can be undertaken and the first step toward legislative change can occur.

As all New Zealanders, especially children, are currently in harm's way, we request that this matter be considered urgent.

Background

Fluoridation started in New Zealand in Hastings in 1954 with many more councils joining them in the 1960s after the Lewis case was decided by the Privy Council in 1964/65. By 2000, one third of all councils had fluoridated at least some of their water, supplying about half of New Zealand's population.

In 2010 the MoH established the National Fluoridation Information Service (NFIS) to increase fluoridation rates in New Zealand. It provided expert representation in two council run tribunal-style hearings on fluoridation in 2011 (New Plymouth) and 2013 (Hamilton). After lengthy two- and three-day hearings, respectively, both councils voted to stop fluoridation. The NFIS was subsequently disbanded.

In 2012 the South Taranaki District Council (STDC) decided to fluoridate Patea and Waverley against the wishes of the people. This gave rise to a legal challenge that went to the Supreme Court in 2018. The Court ruled that fluoridation was compulsory medical treatment under section 11 of the NZ Bill of rights Act 1990. However, it did not reach consensus as to whether it was a justified limitation on that right under section 5.

In 2016 the National Government introduced legislation to shift decision making from councils to the District Health Boards. This was mostly in response to calls from councils who were feeling increasingly uneasy about continuing with fluoridation but were reluctant to go against the advice of the MoH.

The legislation stalled under the next Labour-Greens-NZ First Government as NZ First did not support it, believing instead that the decision should be made locally.

In 2021 the Government Amendment to the Health Act was finally passed, but because the DHBs had been disbanded, the decision was given to the Director General of Health (DGOH) with sole discretion to order councils to stop or start fluoridation. Legislators have entrusted the MoH to review the information objectively, but we believe this trust is misplaced because of the difficulty organisations, that have promoted something with so much vigour, have in changing course.

In July 2022 14 councils were directed by the DGOH to start fluoridation. Most have now done so, although the majority have done this under duress and despite public opposition. Large public meetings were held in most places and councils received petitions and numerous delegations from the public imploring them to reject the directives. Street protests were also held in Hastings, Waitaki, Rotorua and Tauranga.

A further 22 councils have received initial letters but could not be directed while the DGOH was required by Court order to conduct a BORA analysis, which has now been completed.

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Note: mg/L and ppm (parts per million) are used interchangeably as they are equivalent. New Zealand fluoridates above 0.7ppm (range 0.7ppm to 1ppm).

Evidence

1. US National Toxicology Program (NTP) Systematic Review.

The final version of the [US Government's NTP Systematic Review](#)¹ on fluoride and IQ was published in August 2024 categorising fluoride as an undisputed neurotoxin. They found there was no threshold where fluoride did not cause neurological harm. The NTP determined that the report was applicable to those areas where water is fluoridated given that the "highest quality studies showing lower IQs in children were done in fluoridated areas" (with levels of fluoride up to 0.7mg/L).

Fluoride is now accepted by the scientific community, even by those promoting fluoridation, to be a neurotoxicant.

2. Ten US Government funded studies finding neurological harm.

A [study published in May 2024](#)² was the tenth consecutive study funded by the US Government finding that fluoride is associated with neurological harm. This was the first US Government funded study carried out in the US. Most of the other studies were done in Canada, where some water supplies are fluoridated, and in Mexico where salt is fluoridated. Both the US and Canada fluoridate at lower levels than New Zealand. (See Appendix 1 for the list of ten studies).

3. Gold Standard Review finds levels experienced with fluoridation lowers IQ

A [review by US Government scientists](#)³, published on 6 January 2025, found fluoride lowered IQ at exposure levels experienced with water fluoridation. Levels also experienced in New Zealand were consistently associated with lower IQ in children and that this damage is permanent. This new review performed a separate analysis of studies where the fluoride levels were below 1.5 mg/L showing that neurotoxic harm is occurring even at these lower levels. The study was published in the prestigious JAMA Online.

4. US Federal Court Ruling.

The [US Federal Court ruled in September 2024](#)⁴ that “that fluoridation of water at 0.7 milligrams per liter (“mg/L”) poses an unreasonable risk of reduced IQ in children” and ordered the Environmental Protection Agency (EPA) to undertake regulatory action to “reduce or remove the risk posed by fluoridation”.

The MoH has downplayed this on the basis that the Federal Court did not direct the EPA to end fluoridation, but only recommended it take regulatory action. This is all the Federal Court could do under the US legislation, and it is therefore misleading to suggest otherwise.

The EPA had signalled that they intended to appeal the decision, however, on Monday 7 April 2025 the Head of EPA announced that the EPA is going to review new scientific information on potential health risks of fluoride in drinking water. We expect this will result in a lowering of the Maximum Contaminant Level Goal to close to zero, **thereby outlawing fluoridation.**

US attorney, Michael Connett, who led the case against the US EPA and recently toured New Zealand, gave [a stunning presentation in Wellington](#)⁵ in February describing his seven-year legal battle.



5. Top NZ dental researcher no longer certain fluoridation is safe.

In March this year, [Dr Jonathan Broadbent appeared on RNZ's Sunday Morning](#)⁶ with Jim Mora. Dr Broadbent is the lead author of a study comparing the IQ of Dunedin children who grew up in areas with fluoridated water to those that didn't. Dr Broadbent's study has been relied upon by the Prime Minister's Chief Science Advisor as a bedrock to assure safety in New Zealand. However, during his recent interview on RNZ, Dr Broadbent advised that more research was needed, particularly for pregnant women and bottle-fed babies, admitting to uncertainty over fluoridation's safety.

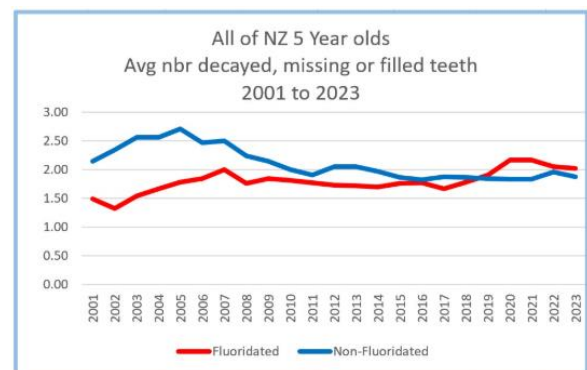
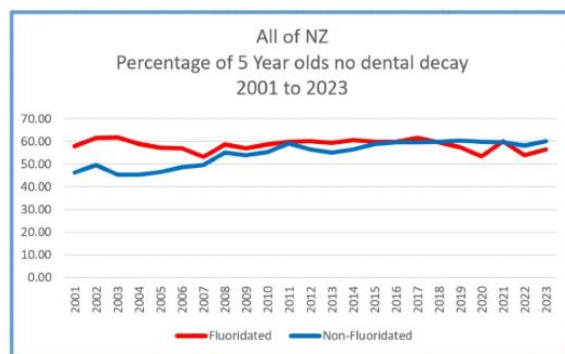
6. Major studies show little or no benefit.

The Cochrane Collaboration, considered the gold standard in health science, published an update on fluoridation in October 2024. The DGOH has relied upon the Cochrane Collaboration's 2015 report to justify directing councils to fluoridate. However, the [2024 update](#)⁷ has found if there is a benefit, it is only in the order of 2 – 4% (not the 40% claimed by the Ministry) and, in fact, there may be no benefit at all. The two major studies published prior to the latest Cochrane review (LOTUS 2024 and [CATFISH 2022](#)⁸) were funded by the UK Government and also found very little evidence that fluoridation reduced dental decay. The [LOTUS study](#)⁹ estimated that once the capital cost of a fluoridation plant is amortised over its working life, fluoridation has no or negative cost-benefit (without considering the health costs of harms caused).

7. New Zealand School Dental Statistics also show no benefit from fluoridation.

The MoH collect statistics from the [NZ School Dental Service](#). Every year they provide the percentage of children with no dental decay and the average number of fillings for those that do have decay. They have provided these figures for 5-year-olds and Year 8 children for every year since 1990. There are about 45,000 children in each age group.

The graphs below show the average number of fillings and percentage of five-year-old children with dental decay from 2001 to 2023 (latest data). Over that time, the gap between the fluoridated and non-fluoridated children for both measures has become non-existent. The rates of decay in fluoridated areas have not improved whereas rates in non-fluoridated areas have improved since 2001.



8. New Zealand Oral Health Survey finds practically no benefit from fluoridation

Along with the Cochrane Collaboration and the New Zealand School Dental Statistics, the MoH relies on the 2009 Oral Health Survey as evidence that fluoridation reduces dental decay. This study was based on dental health data collected in 2008 (17 years ago!). The report finds fluoridation results in a 40% reduction in dental decay rates but in real terms, this is less than one filling. We provide a detailed analysis of why even this figure of less than one filling cannot be relied upon on our page ¹⁰. [MoH says fluoridation reduces dental decay by 40% - no it doesn't](#)

9. Whangarei District Council embarks on legal action to stop fluoridation

Whangarei District Council (WDC) was directed by the DGOH in July 2022 to start fluoridation by 31 December. The directive was met with considerable public opposition and the council chambers were filled on most occasions that fluoridation was discussed. Councillors received thousands of emails and a petition with 1216 signatures.

WDC wrote to the DGOH multiple times asking for an extension to the deadline and then requested a review of the decision. These requests were refused leading to a legal challenge by WDC. An interim injunction was sought in March 2025 but this was denied by the judge who said that despite the US Court finding fluoridation posed an unreasonable risk of injury to people's health, the court did not find definitively that fluoridation harmed health. The substantive case is due to be heard later this year.

10. Rotorua Lakes Council calls on the Prime Minister to initiate a Commission of Inquiry.

11.

Rotorua Lakes Council (RLC) experienced the same public opposition to fluoridation as was experienced by WDC. RLC also wrote to the DGOH requesting an extension and then a review of the decision but were similarly denied. RLC then chose to write to the Minister of Health requesting a public inquiry. The Minister advised them to send any concerns to the DGOH without providing any answer to their request for an Inquiry. As their last show of objection to the directive to fluoridate their water supply, the councillors voted unanimously to write to the Prime Minister requesting a Commission of Inquiry.

11. Fluoridation Chemicals are toxic waste

A [report by RNZ in January 2023](#)¹¹ explains:

"If fluoridation goes ahead, councils will be using New Zealand-made industrial fluoride in the form of fluosilicic acid, also known as hydrofluosilicic acid. Hydrofluosilicic acid is produced during the manufacture of superphosphate fertiliser. It is the form of fluoride most widely used by New Zealand councils, added into drinking water as a liquid."

A [report by Water New Zealand](#)¹² explains:

Hydrofluosilicic acid is produced as a co-product in the manufacture of phosphate fertilisers. Phosphate rock, which contains fluoride and silica, is treated with

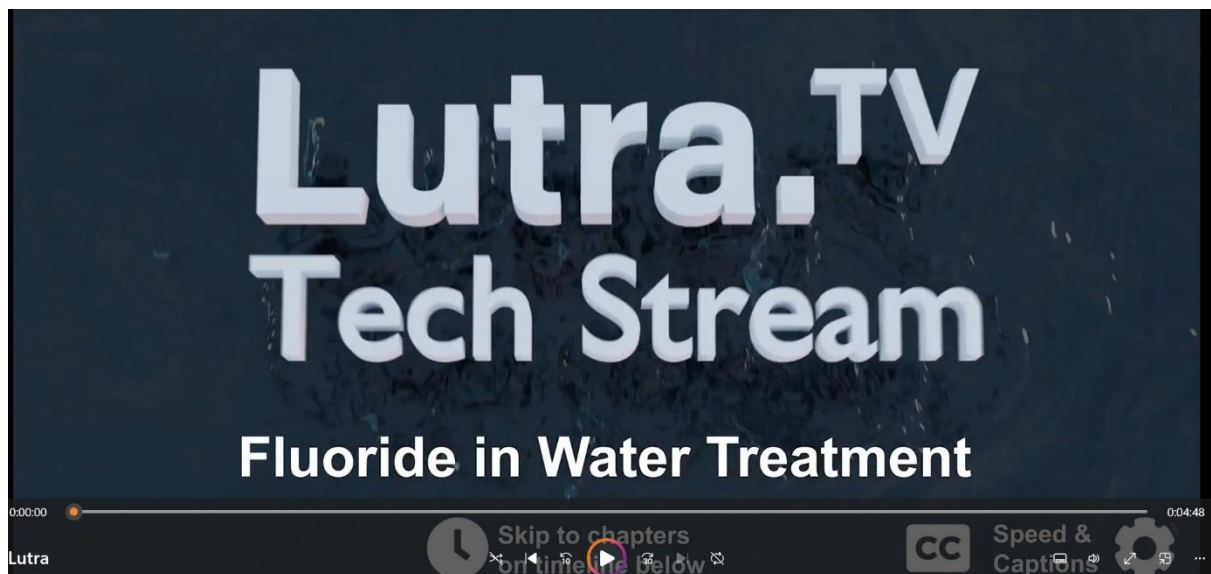
sulphuric acid. This produces two gases: silicon tetrafluoride and hydrogen fluoride. These gases are passed through scrubbers where they react with water to form hydrofluosilicic acid.

From an article in Utah newspaper [The hazardous job of handling fluoride in drinking water](#)¹³:

“Since this is a hazardous chemical, with **elevated levels of arsenic, lead, mercury and chromium**, it must be handled and disposed of as a hazardous chemical, as state and federal regulations require,” says General Manager Scott Paxman from Weber, Utah. “It’s very acidic. So even the fumes just start attacking anything metal in the room, including electronics, and it even makes plastics brittle. So we were always replacing pumps, replacing doors, replacing piping, because it is such a corrosive thing. And then if you ever got it on your skin, we have to have safety showers in each of those buildings because they just have to get it washed off immediately,” Paxman said. “We’ve heard nightmares from other operators. ... Just handling the product has been a big pain.”

[Operations company, Lutra](#)¹⁴ explains:

In New Zealand, Lutra, provides many councils with the expertise to operate the fluoridation equipment. See how they describe the fluoridation process to councils.



12.Reviews relied on by the Ministry of Health are outdated and/or unscientific.

The Ministry of Health relies primarily on the following reviews:

- Prime Minister's Chief Science Advisors review 2014
- Chief Science Advisor's 2021 update of the 2014 review
- Broadbent Dunedin IQ study
- MoH 2024 Evidence Review

Prime Minister's Chief Science Advisor's review 2014

This review of fluoridation was completed in two and a half months. For comparison, the NTP Review of just fluoride and IQ took seven years to complete.

This report is the prime piece of evidence provided by the MoH to support fluoridation. However, when this report was published it contained a major error as it reported that the 2012 Harvard review of fluoride-IQ studies found a drop of only "less than one IQ point that is likely to be a measurement or statistical artefact of no functional significance.". We contacted the authors and advised them that the Harvard Review had actually found a loss of "less than one standard deviation" i.e. 7 IQ points. The authors changed the report to say "less than one standard deviation" but they did not change their conclusion continuing to say that "this is likely to be ... of no functional significance".

This is hugely misleading as the vast majority of people would not realise that a standard deviation in IQ is 15 IQ points and will therefore take the authors' conclusion at face value.

Please take a minute to see a [visual representation](#)¹⁵ of this.



Broadbent study

The Broadbent study was rejected by the NTP as they determined it to be of low quality and at high risk of bias. From the NTP Review:

“A frequent, critical limitation among the high risk-of-bias studies was lack of information regarding exposure or poor exposure characterization. In one case, multiple sources of fluoride exposure were assessed separately without properly controlling for the other sources of exposure, which could bias the results (Broadbent et al. 2015).”

While the Broadbent study compared children who had used fluoride tablets with those that had never used fluoride tablets, they did not combine that data with water fluoridation status. Therefore, it could have been that most of the children in the nonfluoridated cohort (99 of them) were the children that took fluoride tablets (139 had taken tablets) as was the advice at the time.

Prime Minister's Chief Science Advisor's 2021 update.

The 2021 update continues to rely heavily on the Prime Minister's Chief Science Advisor's review of 2014. It argues that the Broadbent study is superior to the Canadian Green study which is not the case. The Green study was published in the high-ranking JAMA Pediatrics and was considered to be of high-quality by NTP.

The 2021 Update also argues that the then recent discussion around fluoride had centred on epidemiological studies rather than controlled animal studies. However, before these human studies were available the MoH rejected the burgeoning number of animal studies because they said they may not relate to humans.

Ministry of Health's 2024 Evidence Review.

This review selected five systematic reviews of fluoride and IQ for analysis. The MoH authors conclude that three of the reviews found no association between fluoride in drinking water at levels used for fluoridation and the other two reviews had flaws.

Of the five reviews, one is by a former Californian Dental Health Director whose review has been internationally discredited as Freedom of Information Act requests revealed emails showing he had omitted data and basically fudged his results. It is concerning the MoH is referencing this review.

Of the other four reviews:

- one shows mixed results with three out of the seven studies finding fluoride does reduce IQ at low levels
- one review only finds the IQ reduction at fluoride levels in water greater than 2 mg/L
- the last two do find that fluoride at the levels used for fluoridation in New Zealand is associated with a reduction in IQ.

The MoH also ignore the fact that there is now **no margin of safety**. They dismiss all concerns with findings of adverse effects at fluoride levels 1.5 mg/L or higher. They claim that is “twice as high” as fluoride levels experienced in New Zealand.

However, fluoride levels in New Zealand range from 0.7 to 1ppm with many councils fluoridating at the higher end, often going over 1ppm. Even if levels were only around 0.7ppm there still is such a narrow margin between safety and toxicity that fluoridation is untenable.

Stanly Barone, senior Risk Assessor for the US EPA, who testified on behalf of the EPA in the court case last year, admitted that “something was going on” at 2ppm or above and that a normal risk assessment would require a margin of at least ten. Even a finding of 2 ppm would bring fluoride levels down to 0.2ppm,

This MoH Evidence Review is not a glowing endorsement of fluoridation’s safety. It is reflective of the apparent determination of the MoH to dismiss all concerns unless they can be proven beyond all reasonable doubt. However, the onus is on MoH to prove safety beyond all reasonable doubt. The onus is also on MoH to provide a margin of safety.

See Appendix 2 where we provide feedback for each review.

13. New Zealand is an outlier – the end of fluoridation in the USA is near

The only countries who practice water fluoridation are the USA and countries allied to it (UK, Canada, Australia, NZ) or influenced by those countries e.g. Singapore, Hong Kong, and Malaysia are fluoridated due to their history with the UK.

New Zealand is one of only eight countries that has more than 50% of population supplied with fluoridated water – nowhere in continental Europe is fluoridated. New Zealand is only one of three countries that has a national mandate for fluoridation, the other two being Ireland and Singapore. Only 5% of the world’s population receive fluoridated water, with half of those being in the USA.

On Monday 7 April 2025 [RFK Jnr. announced that he is planning to tell the US Centers for Disease Control](#)¹⁶ (CDC) to stop promoting fluoridation. The new [head of the US Environmental Protection Agency](#)¹⁷ also stated that the EPA “was launching a renewed examination of scientific studies on the potential health risks of fluoride in drinking water to help inform any changes to the national standards.”

The state of Utah has just outlawed fluoridation with at least four other states lodging similar pieces of legislation.

Florida’s Surgeon General, [Dr. Joseph Ladapo](#)¹⁸, has called fluoridation “public health malpractice”. He says “It is public health malpractice and so we are issuing guidance to every community, every municipality, every county in Florida to stop adding fluoride to their community water systems. And I will tell you that the data that we have, the studies that we have, primarily are focused on pregnant women and children, those are clearly the most sensitive and vulnerable populations for fluoridation in terms of these adverse neuropsychiatric effects. But I personally, in my family, we’ve pulled back in terms of sources of fluoride because we’re concerned about the effects in adults also.”.



References

¹ <https://fluoridefree.org.nz/wp-content/uploads/2024/08/National-Toxicology-Program-Fluoride-Report-Final.pdf>

² <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2818858>

³ <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2828425>

⁴⁴ <https://fluoridefree.org.nz/wp-content/uploads/2024/09/Judges-Ruling-Fluoridatio-is-an-Unreasonable-risk.pdf>

⁵ <https://www.youtube.com/watch?v=rFeP0zw2c0Q>

⁶ <https://www.rnz.co.nz/national/programmes/sunday/audio/2018979046/is-there-a-link-between-high-fluoride-levels-and-iq>

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- ¹⁷ <https://www.epa.gov/newsreleases/epa-will-expeditiously-review-new-science-fluoride-drinking-water>
- ¹⁸ <https://www.youtube.com/watch?v=JYrbDy7TItM>