



NC Department of Health and Human Services

Draft Response to Legislative Request about Fluoride in Drinking Water

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December 4, 2024 – Secretaries' Scientific Advisory Board Meeting

Recap of Legislative Report re: Fluoride in Drinking Water

- **Previous interim report from DHHS in Feb 2024 on behalf of Commission for Public Health**
 - Premature, referred to SSAB
- **Legislation updated in S508 (2024)**
 - Legislative Report due by 12/1/2024
- **DHHS reviewed with SSAB in August 2024**
 - Awaiting Report from the National Toxicology Program
- **Draft legislative report circulated in November 2024 and amended based on feedback for discussion at today's SSAB Meeting**

Legislative Request - S508 (2024)

...
"SECTION 8.16.(d) Public Water Supply Fluoridation Study. – The ~~Commission for Public Health~~ Secretaries' Science Advisory Board shall perform a review of the National Toxicity Program's September 2022 draft report titled "Monograph on the State of the Science Concerning Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects: A Systematic Review," as well as the studies reviewed in the report, and any other studies the ~~Commission Board~~ finds relevant to an assessment of the association between fluoride exposure and IQ in children. Based on this review, the ~~Commission Board~~ shall determine whether sufficient evidence exists for a link between fluoride in the public water supply and cognitive decline or any other neurological detriment in children.

Legislative Request S508 (2024)

"**SECTION 8.16.(e)** The ~~Commission~~ Secretaries' Science Advisory Board shall make a report to the General Assembly on or before ~~February~~ December 1, 2024, of its findings and recommendations, including a recommendation on whether the current standard for fluoride established in the ~~Commission's rules~~ rules of the Commission for Public Health (i) is protective of public health and (ii) should be lowered. If the ~~Commission~~ Board makes the determination regarding a link between fluoride in public water supplies and neurological impacts in children as described in subsection (a) of this section, then the ~~Commission~~ Board shall direct the Department of Health and Human Services to create a list of the private and public water utilities in the State, their fluoride concentration, the number of children or households to which they provide water, and any other information that it deems pertinent. The Department shall include with the list a ranking of the risk to children of the water supplied by each utility.

Status of NTP Reports

Fluoride Exposure: Neurodevelopment and Cognition

<https://ntp.niehs.nih.gov/go/fluoride>

The [State of the Science Monograph](#) is now available.



Topic Overview

CASRN: 16984-48-8

Status: Evaluation completed

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<https://ntp.niehs.nih.gov/whatwestudy/assessments/noncancer/ongoing/fluoride>

Status of NTP Reports

- **NTP Monograph on the State of the Science is now published (Aug 21, 2024)**
 - **Webinar presented by NTP on Dec 3, 2024**
- **Corresponding NTP meta-analysis manuscript is still pending publication**

Recommendations from NCDHHS

NCDHHS has drafted a legislative response for review and discussion today

Key text:

- The NTP report was effectively split into two documents – The State of the Science Monograph and a corresponding meta-analysis of the research articles relevant to this topic.
- In August 2024, the NTP published the finalized document titled “Monograph on the State of the Science Concerning Fluoride Exposure and Neurodevelopment and Cognition: A Systematic Review”.
- The corresponding systematic review and meta-analysis of studies assessing potential correlations between fluoride and children’s intelligence has been accepted by a scientific journal for publication but

Recommendations from NCDHHS

NCDHHS has drafted a legislative response for review and discussion today

Key text:

- After consultation with the Secretaries' Science Advisory Board, it has been determined that the meta-analysis is relevant to the requested assessment and resulting recommendation.
- As this meta-analysis is not yet available, finalization of this report within the requested timeframe would be premature.

Questions?

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- **919-623-1756**

Fluoride in drinking water in NC

- Fluoride is a mineral that is effective in preventing and reversing dental decay by strengthening tooth enamel.
- Fluoride has been added to drinking water in NC since 1949.
- After the introduction of fluoridation in the 1940s, children in communities with optimally fluoridated water had reductions in tooth decay rates.
- In 2014, NCDHHS recommended the lower end (0.7 mg/L) of the US Department of Health and Human Services recommended range of 0.7 -1.2 mg/L of fluoride in drinking water due to other sources of topical fluoride (e.g., toothpaste), and aligns with the US Public Health Service recommendation of 0.7 mg/L as optimal level.
- Fluoridation has been studied for ~ 70 years with a large body of evidence on benefits for dental health.
- The National Toxicology Program has been conducting a systematic review of the scientific research on fluoride exposure and possible neurodevelopmental and cognitive health effects in humans.

<https://www.dph.ncdhhs.gov/programs/oral-health/tips-and-education/fluoride-facts>
<https://ntp.niehs.nih.gov/whatwestudy/assessments/noncancer/ongoing/fluoride>
<https://pubmed.ncbi.nlm.nih.gov/articles/PMC4547570/>

Initial request to Commission for Public Health in S658 (2023)

42 **DEPARTMENT OF HEALTH AND HUMAN SERVICES FLUORIDATION STUDY**

43 **SECTION 3.(a)** The Commission for Public Health shall perform a review of the
44 National Toxicity Program's September 2022 draft report titled "Monograph on the State of the
45 Science Concerning Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects:
46 A Systematic Review," as well as the studies reviewed in the report, and any other studies the
47 Commission finds relevant to an assessment of the association between fluoride exposure and IQ
48 in children. Based on this review, the Commission shall determine whether sufficient evidence
49 exists for a link between fluoride in the public water supply and cognitive decline or any other
50 neurological detriment in children. |

Initial request to Commission for Public Health in S658 (2023)

General Assembly Of North Carolina

Session 2023

1 **SECTION 3.(b)** The Commission shall make a report to the General Assembly on
2 or before February 1, 2024, of its findings and recommendations, including a recommendation
3 on whether the current standard for fluoride established in the Commission's rules (i) is protective
4 of public health and (ii) should be lowered. If the Commission makes the determination regarding
5 a link between fluoride in public water supplies and neurological impacts in children as described
6 in subsection (a) of this section, then the Commission shall direct the Department of Health and
7 Human Services to create a list of the private and public water utilities in the State, their fluoride
8 concentration, the number of children or households to which they provide water, and any other
9 information that it deems pertinent. The Department shall include with the list a ranking of the
10 risk to children of the water supplied by each utility.

11 **SECTION 3.(c)** This section is effective when it becomes law.

Initial request to Commission for Public Health in S658 (2023)

- **Response from NCDHHS on behalf of the Commission for Public Health in February 2024**
 - “As the 2022 NTP Report remains under review and revision, consideration of the report for changes in North Carolina is premature.”
 - “Additionally, the Commission for Public Health is not best situated to evaluate this report. The Secretaries’ Science Advisory Board (SSAB) is comprised of experts better suited to this type of review in consultation with the Department of Environmental Quality and the Department of Health and Human Services.”