



NC Department of Health and Human Services

Update on the National Toxicology Program's pending report on “Fluoride: Assessment for Developmental Neurotoxicity”

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August 7, 2024 – Secretaries’ Scientific Advisory Board Meeting

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).
- Fluoridation has been studied for ~ 70 years with a large body of evidence
- 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>

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.”

Follow up request to SSAB from 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.

Follow up request to SSAB from 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 Report

The screenshot shows the National Toxicology Program (NTP) website. The header includes the NTP logo, the text "National Toxicology Program U.S. Department of Health and Human Services", and navigation links for "Calendar & Events", "News & Media", "Get Involved", and "Support". A search bar is located on the right side of the header. Below the header, there are navigation tabs for "What We Study", "Data & Resources", "Publications", and "Who We Are". The main content area features a breadcrumb trail: "Home > What We Study > Health Effects Assessments > Noncancer Health Effects > Ongoing Evaluations > Fluoride". The title of the page is "Fluoride: Assessment for Developmental Neurotoxicity", with a URL "https://ntp.niehs.nih.gov/go/fluoride" to its right. Below the title, there is a section titled "Topic Overview" which includes a photo of a hand filling a glass with water from a faucet. The text in this section states "CASRN: 16984-48-8" and "Status: Topic under evaluation". To the right of the "Topic Overview" section is a "On This Page" sidebar with a dropdown arrow, containing links for "Background Information", "Documents", and "Meetings & Events".

Calendar & Events | News & Media | Get Involved | Support

National Toxicology Program
U.S. Department of Health and Human Services

Search the NTP Website SEARCH

What We Study ▾ | Data & Resources | Publications | Who We Are ▾

Home > What We Study > Health Effects Assessments > Noncancer Health Effects > Ongoing Evaluations > Fluoride

Fluoride: Assessment for Developmental Neurotoxicity <https://ntp.niehs.nih.gov/go/fluoride>

Topic Overview

CASRN: 16984-48-8
Status: Topic under evaluation

On This Page

- Background Information
- Documents
- Meetings & Events

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

Status of NTP Report

- **NTP conducted a systematic review of the scientific research on fluoride exposure and neurodevelopmental and cognitive health effects in humans.**
- **The report underwent two peer reviews by the National Academies of Science, Engineering, and Medicine (NASEM). Both times, the NASEM committee stated that NTP had not adequately supported its conclusions that fluoride should be classified as a cognitive neurodevelopmental hazard for humans.**
- **Based on the [NASEM review](#), the NTP removed the hazard classification of fluoride and made additional changes, resulting in two draft documents:**
 1. **An NTP Monograph on the State of the Science that considered research published through May 2020, and**
 2. **A manuscript on the meta-analysis of the data that considered research published through November 2021.**

Status of NTP Report

- **An NTP Board of Scientific Counselors (BSC) Working Group recommended 93 revisions to the monograph and 81 revisions to the meta-analysis manuscript.**
- **The BSC accepted the Working Group's recommendation to revise both the monograph and meta-analysis manuscript prior to publication and sent their final report to the NIEHS/NTP Director in May 2023.**
- **As of 8/5/2024, publication of the NTP Monograph on the State of the Science and the meta-analysis manuscript are still pending.**

Recommendations from NCDHHS

- **NCDHHS recommends waiting for the final NTP report to complete any assessment of health risks of fluoride in drinking water.**
- **NCDHHS plans to review the materials when they are available and determine what specific asks/charge there might be for SSAB based on that review.**
- **It is highly unlikely that this review, formulation of a charge, and any subsequent work could be completed by the December 1 report deadline included in the legislation. Based on that expectation, NCDHHS will begin formulating a response to the General Assembly for SSAB review.**

Questions?

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