



City Council Meeting Minutes

Vancouver City Hall | Council Chambers | 415 W. 6th St.
PO Box 1995 | Vancouver, WA 98668-1995
cityofvancouver.us

Anne McEnergy-Ogle, Mayor • Bart Hansen • Ty Stober • Erik Paulsen • Sarah J. Fox • Diana H. Perez • Kim D. Harless

May 12, 2025

Workshops: 4:00-6:00 p.m.

Vancouver City Hall - Council Chambers - 415 W 6th Street, Vancouver WA

The City Council Meeting was held on 5/12/2025 at 4:00 PM in the Vancouver City Hall, Council Chambers 415 West 6th Street, Vancouver, WA 98660.

Workshops were conducted in person in the Council Chambers of City Hall. Members of the public were invited to view the meeting in person, via the live broadcast on www.cvtv.org and CVTV cable channels 23 or HD 323, or on the City's Facebook page, or www.facebook.com/VancouverUS.

View the CVTV video recording, including presentations and discussion, for workshops at: https://www.cvtv.org/vid_link/37885?startStreamAt=0&stopStreamAt=6260

Comprehensive Plan Update

(Approximately 45 minutes)

Rebecca Kennedy, Deputy Community Development Director, Domenique Martinelli, Senior Planner, rebecca.kennedy@cityofvancouver.us, domenique.martinelli@cityofvancouver.us

Staff led Council through a discussion of the Comprehensive Plan Update.

Councilmember Hansen was absent from the workshop.

Transportation System Plan Implementation Update

(Approximately 45 minutes, to immediately follow the previous workshop)

Kate Drennan, Transportation Planning Program Manager, Rebecca Kennedy, Deputy Community Development Director, kate.drennan@cityofvancouver.us, rebecca.kennedy@cityofvancouver.us

Staff led Council through a discussion of the Transportation System Plan Implementation Update.

Councilmember Hansen was absent from the workshop.

Boards and Commissions Policy Updates

(Approximately 30 minutes, to immediately follow the previous workshop)

Lisa Brandl, Deputy City Manager, Tawny Maruhn, Senior Support Specialist,
lisa.brandl@cityofvancouver.us, tawny.maruhn@cityofvancouver.us

Staff led Council through a discussion of the Boards and Commissions Policy Updates.

Councilmember Hansen was absent from the workshop.

Council Dinner / Administrative Updates (6:00 - 6:30 PM)

Regular Council Meeting

6:30 PM

Vancouver City Hall - Council Chambers - 415 W 6th Street, Vancouver WA

This meeting was conducted as a hybrid meeting with in person and remote viewing and participation over video conference utilizing a GoToMeeting platform. Members of the public were invited to view the meeting in person, via the live broadcast on www.cvtv.org and CVTV cable channels 23 or HD 323, or on the City's Facebook page, www.facebook.com/VancouverUS. Public access and testimony on Consent Agenda items and under the Community Forum were also facilitated in person and via the GoToMeeting conference call.

Vancouver City Council meeting minutes are a record of the action taken by Council. To view the CVTV video recording, including presentations, testimony and discussion, for this meeting please visit:

https://www.cvtv.org/vid_link/37887?startStreamAt=0&stopStreamAt=8024

Electronic audio recording of City Council meetings are kept on file in the office of the City Clerk for a period of six years.

Pledge of Allegiance

Call to Order and Roll Call

The regular meeting of the Vancouver City Council was called to order at 6:30 p.m. by Mayor McEnery-Ogle. This meeting was conducted as a hybrid meeting, including both in person and remotely over video conference.

Present: Councilmember Harless, Councilmember Perez, Councilmember Fox, Councilmember Paulsen, Councilmember Stober, Mayor McEnery-Ogle

Absent: Councilmember Hansen

Motion by Councilmember Stober, seconded by Councilmember Paulsen, and

Yes: 6, No: 0, Abstaining: 0, to excuse Councilmember Hansen from the meeting. Absent from vote: Councilmember Hansen.

Approval of Minutes

Minutes - May 5, 2025

Motion by Councilmember Stober, seconded by Councilmember Harless, and Yes: 5, No: 0, Abstaining: 1, to approve the May 5, 2025 Meeting Minutes. Absent from vote: Councilmember Hansen. Councilmember Paulsen abstained.

Proclamations

Older Americans Month

Mayor McEnery-Ogle read and presented a proclamation to Jana Wilson, Senior Recreation Specialist for the City of Vancouver, and Linda Van Slyke, Volunteer for Parks, Recreation and Culture Services, proclaiming May 2025, as Older Americans Month.

Poppy Days

Mayor McEnery-Ogle read and presented a proclamation to Gloria Cummings, past President of the American Legion, Unit 14, proclaiming May 12-17, 2025, as Poppy Days.

Memorial Day

Mayor McEnery-Ogle read and presented a proclamation to Larry Smith, Co-Chairman of the Community Military Appreciation Committee, and Laurie O'Leary, CMAC Member, proclaiming May 26, 2025, as Memorial Day.

Community Communication

This is the place on the agenda where the public is invited to speak to Council regarding any matter on the Agenda not already scheduled for Public Hearing. (Separate instructions are provided for offering testimony on Public Hearing when applicable.) This includes the option to testify about Workshops. Members of the public addressing Council are requested to give their name and city of residence for the audio record. Speakers are to limit their testimony to a total of three minutes for all items combined.

Mayor McEnery-Ogle opened Community Communication and received testimony from the following community members regarding any matter on the agenda not scheduled for a Public Hearing:

- *Peggy Sheehan, Vancouver*
- *Bruce Barnes, Vancouver*
- *Carmen DeLeon, Vancouver*
- *Wynn Grcich, Vancouver*
- *Kimberlee Goheen Elbon, La Center*

There being no further testimony, Mayor McEnery-Ogle closed Community Communication.

Consent Agenda

The following items will be passed by a single motion to approve all listed actions and resolutions. There will be no discussion on these items unless requested by Council. If discussion is requested, the item will be moved from the Consent Agenda and considered separately – after the motion has been made and passed to approve the remaining items.

Council pulled items 4 and 5 for discussion.

Motion by Councilmember Paulsen, seconded by Councilmember Fox, and Yes: 6, No: 0, Abstaining: 0, to approve Items 1-3 and 6-8 on the Consent Agenda. Absent from vote: Councilmember Hansen.

Motion by Councilmember Fox, seconded by Councilmember Stober, and Yes: 6, No: 0, Abstaining: 0, to approve Item 4 on the Consent Agenda. Absent from vote: Councilmember Hansen.

Motion by Councilmember Fox, seconded by Councilmember Perez, and Yes: 6, No: 0, Abstaining: 0, to approve Item 5 on the Consent Agenda. Absent from vote: Councilmember Hansen.

1. Bid Award - 2025 Resurfacing Project - ITB 25-20

Staff Report: 096-25

Request: On May 12, 2025, award a construction contract for the 2025 Resurfacing Project to the lowest responsive and responsible bidder, and authorize the City Manager or designee to finalize and execute a contract with Granite Construction Company, Vancouver, Washington, at their bid price of \$3,344,355, which includes Washington State sales tax.

Chris Sneider, Senior Civil Engineer, chris.sneider@cityofvancouver.us

Motion approved the request.

2. Contract Amendment - Professional Services Agreement with Home Electrification and Appliance Rebates Program - C-101758

Staff Report: 097-25

Request: On Monday, May 12, 2025, approve a contract amendment authorizing the City Manager, or designee, to finalize and execute the same.

Bryan Monroe, Associate Housing Project Coordinator,
bryan.monroe@cityofvancouver.us

Motion approved the request.

3. Contract Amendment - Approval of Threshold Increase for Services Provided by Passport Parking Inc.

Staff Report: 098-25

Request: On Monday, May 12, 2025, authorize the City Manager, or designee, to finalize and execute an amendment to contract C-100069 with Passport Parking, Inc for an additional \$175,000 for a total contract amount of \$475,000.

Gabe Montez, Parking District Manager,
Gabriel.Montez@cityofvancouver.us

Motion approved the request.

4. Approval of Affordable Housing Fund Awards

A RESOLUTION relating to low-income housing; providing for adoption of 2025 funding awards for the Affordable Housing Fund and authorizing the City Manager to execute agreements and other related documents on behalf of the City of Vancouver consistent with Affordable Housing Fund 2025 Council-approved funding awards.

Staff Report: 099-25

Request: On Monday, May 12, 2025, approve a resolution adopting the proposed 2025 AHF awards and authorizing the City Manager, or designee, to execute related agreements.

Samantha Whitley, Housing Programs Manager,
samantha.whitley@cityofvancouver.us

Motion adopted Resolution M-4336 to approve the request.

5. Amendment to Vancouver Municipal Parking Code related Downtown Access Mobility and Parking Plan

AN ORDINANCE relating to the Parking Code for the City of Vancouver under Vancouver Municipal Code (VMC) Titles 19 and 9; amending VMC sections 19.040.070 relating to On-Street Permits; 19.13.010 relating to payment transferability; 19.11.030 relating to parking meter fees designated; 9.92.10 relating to Carpool permit eligibility; 9.92.020 relating to Carpool permit parking hours; 9.92.040 relating to Carpool Permit rate; providing for severability; and setting an immediate effective date.

Staff Report: 100-25

Request: On Monday, May 12, 2025, advance the ordinance amending the Vancouver Municipal Parking Code to implement the Downtown Access Mobility and Parking Plan, setting the date for the second reading and public hearing for May 19, 2025.

Gabe Montez, Parking District Manager,
Gabriel.Montez@cityofvancouver.us

Mayor McEnerny-Ogle read the title of the ordinance into the record.

Motion approved the request.

6. Public Facilities District Board Appointment

Request: On Monday, May 12, 2025, appoint Cody Scherer to a full-term position on the Public Facilities District Board, with a term beginning immediately and expiring November 30, 2029.

Council Subcommittee 1

Motion approved the request.

7. Aviation Advisory Committee Appointments

Request: On Monday, Monday, May 12, 2025, reappoint Shon Lindley and Sara Baker to a full-term and appoint Brigham Williams to a full term on the Aviation Advisory Committee, with a term beginning May 15, 2025, and expiring May 15, 2028.

Subcommittee 1

Motion approved the request.

8. Approval of Claim Vouchers

Request: Approve claim vouchers for May 12, 2025.

Motion approved claim vouchers in the amount of \$9,243,411.58.

Public Hearings

The following item(s) are scheduled for public hearing. Members of the public addressing Council are requested to give their name and city of residence for the audio record. Unless otherwise announced by the Presiding Officer, speakers are to limit their testimony to three minutes for each public hearing.

9. 2025 HUD Annual Action Plan, Amendment to 2022 and 2023 Plans and CV2 Close Out

A RESOLUTION relating to the adoption of the City's Community Development Block Grant (CDBG) and HOME Investment Partnerships (HOME) Annual Action Plan for the 2025 program year; authorizing the City Manager to execute agreements on behalf of the City of Vancouver consistent with the CDBG and HOME Annual Action Plan; providing for severability and an effective date.

Staff Report: 101-25

Request: On Monday, May 12, 2025, approve a resolution adopting the 2025 HUD Annual Action Plan, amendments to the 2022 and 2023 Action Plans, and state CDBG-CV2 closeout; authorizing the City Manager, or designee, to execute agreements on behalf of the City of Vancouver, consistent with the 2025 CDBG and HOME Council approved funding awards

Tasha Slater, Samantha Whitley, Housing Programs Manager,
samantha.whitley@cityofvancouver.us

Tasha Slater, Samantha Whitley, Housing Programs Manager, provided an overview of the 2025 HUD Annual Action Plan, Amendment to 2022 and 2023 Plans and CV2 Close Out.

Council discussed the item briefly with staff.

Mayor McEnery-Ogle opened the public hearing and received testimony from the following community members:

- *Carmen DeLeon, Vancouver*
- *Kimberlee Goheen Elbon, La Center*

There being no further testimony, Mayor McEnery-Ogle closed the public hearing.

Motion by Councilmember Perez, seconded by Councilmember Harless, and

Yes: 6, No: 0, Abstaining: 0, to approve Resolution M-4337. Absent from vote: Councilmember Hansen.

10. 2025-2029 Vancouver Commute Trip Reduction Plan

AN ORDINANCE of the City of Vancouver, Washington relating to the City of Vancouver Commute Trip Reduction Plan as identified in Chapter 18.12 Vancouver Municipal Code (VMC) and by the Growth Management Act through RCW 36.70A.110 and by the Washington Clean Air Act through RCW 70A.15.4020, amending VMC 18.12.030 to adopt the 2025 – 2029 Vancouver Commute Trip Reduction Plan; providing for severability and an effective date.

Staff Report: 095-25

Request: On Monday, May 12, 2025, upon second reading and a public hearing, approve the ordinance.

Olivia Kahn, Transportation Demand Management Coordinator, Kate Drennan, Transportation Planning Program Manager, olivia.kahn@cityofvancouver.us, kate.drennan@cityofvancouver.us

Olivia Kahn, Transportation Demand Management Coordinator, and Kate Drennan, Transportation Planning Program Manager, provided an overview of the 2025-2029 Vancouver Commute Trip Reduction Plan.

Council discussed the item briefly with staff.

Mayor McEnery-Ogle opened the public hearing and received testimony from the following community members:

- *Kimberlee Goheen Elbon, La Center*
- *Carmen DeLeon, Vancouver*

There being no further testimony, Mayor McEnery-Ogle closed the public hearing.

Motion by Councilmember Fox, seconded by Councilmember Perez, and Yes: 6, No: 0, Abstaining: 0, to approve Ord M-4501. Absent from vote: Councilmember Hansen.

Communications

A. From the Council

B. From the Mayor

C. From the City Manager

State Legislative End of Session

Aaron Lande, Program and Policy Development Manager, and Brian Enslow, State Lobbyist, discussed the State Legislative End of Session.

Adjournment

8:46 p.m.

DocuSigned by:

Anne McEnerny-Ogle

6C89D9089EC5424...

Anne McEnerny-Ogle, Mayor

Attest:

DocuSigned by:

Natasha Ramras

493E940414AE4BD...

Natasha Ramras, City Clerk

The written comments below are those of the submitter alone and are not representative of the views of CVTV or the City of Vancouver, its elected or appointed officials, or its employees.

From: [Dollar, Sarah](#)
To: [Dollar, Sarah](#)
Subject: FW: Miscarriages
Date: Monday, May 12, 2025 11:58:25 AM

Sarah Dollar | Executive Assistant to the City Council
Pronouns: She/Her/Hers
CITY OF VANCOUVER, WASHINGTON
City Manager's Office (CMO)
Primary (Cell): 360-624-2949 | **Desk:** 360-487-8641
www.cityofvancouver.us

From: Wynn Grcich <[REDACTED]>
Sent: Friday, May 9, 2025 7:14 AM
To: Rebecca Messinger <[REDACTED]>; City Council
<council@cityofvancouver.us>
Subject: Miscarriages

CAUTION: This email originated from outside of the City of Vancouver. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please send to council members and Melnick. Put on public record and confirm that you did. Thanks from Wynn

This Daily Habit Can Damage Your Brain, Disrupt Your Bones, and Stain and Pit Your Teeth

April 24 2012 | 94,809 views | 42 comments | [Print](#)

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By Dr. Mercola

The largest state legislature in the U.S. recently passed a bill mandating infant fluoride warnings on all water bills in fluoridated communities. On March 15, the New Hampshire House of Representatives voted 253-23 in favor of the bill.

Thanks to a 13-2 recommendation from the House Resources, Recreation, and Development committee, there was no debate over the bill on the House floor. The bill will now go to the Senate. According to the text of the bill, the warning would read:

"Your public water supply is fluoridated. According to the Centers for Disease Control and Prevention, if your child under the age of 6 months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information."

Why Infants Should Not Drink Fluoridated Water

Two years ago, a study published in the *Journal of the American Dental Association* found that fluoride intake during a child's first few years of life is significantly associated with fluorosis, and warned against using fluoridated water in infant formula.

Dental fluorosis - a condition in which your tooth enamel becomes progressively discolored and mottled - is one of the first signs of over-exposure to fluoride. Eventually, it can result in badly damaged teeth, and worse... It's important to realize that dental fluorosis is NOT "just cosmetic."

It can also be an indication that the rest of your body, such as your bones and internal organs, including your brain, have been overexposed to fluoride as well. In other words, if fluoride is having a visually detrimental effect on the surface of your teeth, you can be virtually guaranteed that it's also damaging other parts of your body, such as your bones. After all, bone is living tissue that is constantly being replaced through cellular turnover.

Bone building is a finely balanced, complicated process and fluoride has been known to disrupt this process ever since the 1930s.

While generally supportive of water fluoridation, the Centers for Disease Control and Prevention (CDC) does admit that using fluoridated water to mix infant formula may not be in the best interest of your baby's developing teeth. According to their website:

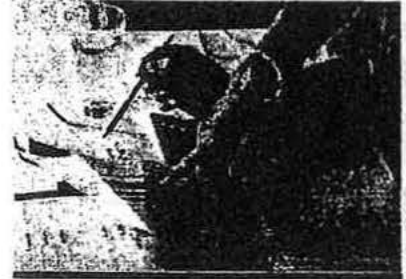
"Recent evidence suggests that mixing powdered or liquid infant formula concentrate with fluoridated water on a regular basis may increase the chance of a child developing ... enamel fluorosis."

The CDC also states:

"In children younger than 8 years of age, combined fluoride exposure from all sources - water, food, toothpaste, mouth rinse, or other products - contributes to enamel fluorosis."

The lack of formal and easy-to-find warnings about the hazard of using fluoridated water to make infant formula has, and continues to be, a major source of contention. New Hampshire will set a marvelous example for other states if their bill mandating infant fluoride warnings on water bills in fluoridated communities is enacted.

Shifting the Burden of Proof



Story at-a-glance

On March 15, the New Hampshire House of Representatives voted 253-23 in favor of mandating infant fluoride warnings on all water bills in fluoridated communities. The bill will now go to the Senate

According to the text of the bill, the warning would read, in part: "According to the Centers for Disease Control and Prevention, if your child under the age of 6 months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis." But dental fluorosis is not "just cosmetic." It can also be an indication that other tissues, such as your bones and internal organs, including your brain, has been overexposed to fluoride as well

A repeated theme in recent cases where communities successfully removed fluoride from their water supply is the shifting of the burden of proof. Rather than citizens taking on the burden of proving that fluoride is harmful and should be removed, champions in positions of some authority have managed to end water fluoridation in their communities by demanding that any fluoride product used must be able to prove its compliance with the regulations, laws, and risk assessments already required for safe drinking water

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Studies LINK Lead to Adult Crime, Brain Damage

WASHINGTON (Reuters)— Exposure to lead in early childhood or in the womb can cause permanent brain damage that may even cause criminal behavior, researchers reported last week.

Two studies show that people with high levels of lead in childhood grew up with blocks of missing brain cells—and they also were far more likely to be arrested for crimes, especially violent crimes.

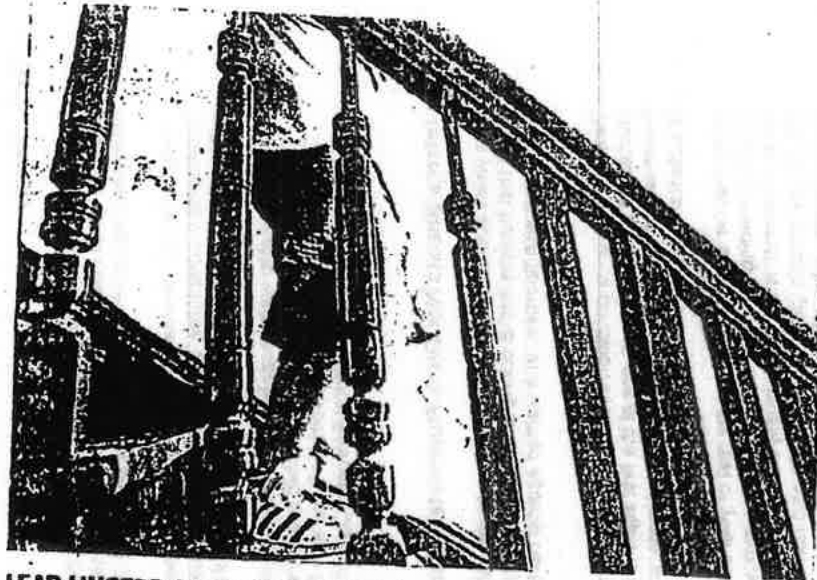
The effect is so strong that it may account for a large percentage of crimes in inner-city areas, where old houses are far more likely to have lead paint, said Kim Dietrich of the University of Cincinnati in Ohio, who led one of the studies in the Public Library of Science journal PLoS Medicine.

"There are some data that suggest that in fact lead does run in parallel with crime trends over the last several decades," Dietrich said in a telephone interview.

Dietrich and colleagues signed pregnant women living in Cincinnati neighborhoods ridden with lead-contaminated housing between 1979 and 1984. They tested the women and then their children at birth and have been watching the children as they grew up.

They correlated blood-lead level at birth and during early childhood with arrest records.

Those with high lead levels at birth and during early childhood had higher rates of arrest than



LEAD LINGERS: Inner-city lead toxicity is still a problem. Lead poisoning in children can cause behavioral problems later in life.

those with lower lead levels. About 55 percent of the now-grown children had at least one arrest, 28 percent involving drugs, and 27 percent serious motor vehicle violations.

"Lower income, inner-city children remain particularly vulnerable to lead exposure," Dietrich said.

"Although we've made great strides in reducing lead exposure, our findings send a clear message that further reduction of childhood lead exposure may be an important and achievable way to reduce vio-

lent crime.

Missing Brain Cells

His colleague Dr. Kim Cecil of Cincinnati Children's Hospital Medical Center did magnetic resonance imaging, or MRI scans, of the brains of their volunteers.

They found more than 1 percent of total gray matter in the brain was missing. "The most affected regions included frontal gray matter, specifically the anterior cingulate cortex," Cecil's team wrote

in a second study. This region is responsible for mood regulation and decision-making.

Men were far more affected than women.

"Our findings also suggest that this structural change is permanent," they wrote.

The implications are profound, Dietrich said. "Usually the effects of lead poisoning are irreversible," he said.

Environmental enrichment programs such as those used to help children who are abused may help, he added. "I don't think they are lost but it certainly is a warning," he said.

Lead paint is by far the biggest source of poisoning, he said—despite recent U.S. scares involving lead in water, in imported toys, and in folk medicine.

The mothers of the children likely had lead in their bodies from their own childhoods, and exposed their babies in the womb, he said.

"Many also grew up in these neighborhoods," Dietrich said.

In a third, unrelated study, a team of University of Pittsburgh researchers showed adults can be subjected to a second wave of lead as they get older.

Writing in the Archives of Environmental and Occupational Health, Lisa Morrow and colleagues showed that lead can leach into the blood from bones as people age and lose bone mass.

WASA is not sure where all the lead pipes are, and deciding which to replace first could be a political nightmare.

Replacing pipes might even be unnecessary because a team of scientists is preparing to add chemicals to the water at the Washington Aqueduct on June 1 that it hopes will stop lead from leaching.

Mayor Anthony A. Williams (D) cautioned that the city and WASA should not commit to a major pipe replacement plan without significant review.

"There's no indications from other cities you have to yank out the pipes," Williams said. "We're going to look at best practices before we make a final decision."

With the heightened public awareness of lead risks, WASA board members said, the city would be wise to engage residents in making an important public policy decision. The board will hold public hearings and accept input for two months, then decide in June whether to formally adopt the six-year replacement plan, Gerstell said.

WASA has been required by federal law to replace 7 percent of the lead service lines -- or 1,600 -- per year since learning of the contamination of drinking water in 2002. However, the agency can stop replacing pipes if lead levels in the water recede below the U.S. Environmental Protection Agency's limit of 15 parts per billion for one year. Two-thirds of the 6,118 residences that WASA tested last summer, or 4,075 homes, had water that exceeded the EPA limit.

WASA General Manager Jerry N. Johnson said the agency would replace all the lead lines if instructed to by the board. But the plan would be a huge financial burden.

WASA officials have projected a capital budget of \$1.76 billion over 10 years to upgrade an infrastructure that suffered years of disrepair in the early 1990s, when much of the capital program was neglected. Undertaking a lead line replacement program would mean possibly deferring other projects, Johnson said.

Most water quality experts, including regulators at the EPA, agree that the most cost-effective way to control lead leaching is through a process known as corrosion control. That entails treating the water with chemicals to create a protective film on the pipes.

To D.C. Council member Jim Graham (D-Ward 1), that sounds like a better plan than sending crews into neighborhoods throughout the city to dig up streets, sidewalks and lawns. WASA should find the right chemicals to curb corrosion and stick with that, Graham said.

"We've had lead pipes in my ward for 100 years, and they've never presented a problem," Graham said. "So we need to work to return to that state of affairs. If we can do that without tearing up neighborhoods and spending hundreds of

Lead and W

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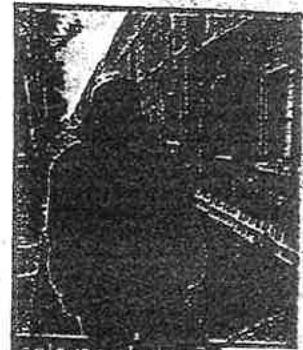
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washingtonpost.com > Metro > Special Reports > Drinking Water

D.C. Debates Lead Options: New Pipes or Altered Water Neither Choice Guarantees Freedom From Problems

By David Nakamura
Washington Post Staff Writer
Monday, April 5, 2004; Page B01

Her home has a lead service line. Her street in Southwest Washington has several of them. And Mary Williams has a message for city leaders: Remove these health threats.



Enlarge photo
Mary Williams of Lead Emerges District talks with neighbor Earl Carroll in Carrollton Place. Water in the Washington neighborhood has high lead levels. (Ricky Carroll - The Washington Post)

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"It's time we do a long-term plan and get rid of these lead service lines just to reduce the risk of this ever happening again," she said of lead contamination in some of the District's drinking water.

Lead service lines have carried water under the city's soil for more than 100 years. But with residents outraged about high lead levels, some city officials also said it is finally time for the aging pipes to go.

Last week, the D.C. Water and Sewer Authority's Board of Directors began considering a proposal to spend at least \$350 million to replace the estimated 23,000 lead lines by 2010.

"We recognize this as a major expense and major dislocation," said WASA Board Chairman Glenn S. Gerstell, "but we may need to do it and get it over with so we can be free of this lead problem."

Such an undertaking would not only be expensive but would severely disrupt city streets and neighborhoods. It would be logistically complex, because

<http://www.washingtonpost.com/wp-dyn/articles/A50230-2004Apr4.html>

D.C. Water Lead Search for lead levels in D.C. from more than 6,100 test by homeowners in cooperation with D.C. WASA. If you don't try a less specific search. You can also find test results on this ward map of D.C.

House Number: _____
Street Name: _____
ZIP Code: _____

Neighborhood (optional)

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County Executive's Office

Residents Urged to Sign Up for New SMC Alert System

Updates include maps, multiple languages

November 21, 2022

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Redwood City – Thanks to an improved emergency alert and warning system, those who live and work in San Mateo County can now get messages via text, email and voice that include maps, images and multiple languages.

The new features of SMCAlert are meant to empower residents further by providing key information to help keep them safe and navigate away from incidents like major traffic delays and detours, wildfires, floods and mountain lions. The added capabilities are due to a new vendor, RAVE, which replaces former provider Everbridge.

SMCAlert is a free notification system used to immediately alert you of urgent or emergency situations. Senders include the county and its cities; the new alert system has an improved identification component to show recipients exactly which agency sent the message. The new system also lets you choose to receive messages in English, Spanish or Simplified Chinese.

Existing recipients of SMCAlert are encouraged to create a new account to enable the new features. If you don't, you will continue receiving alerts as before, but cannot take advantage of the added features. To do so, visit www.SMCAlert.info

Those who do not currently use SMCAlert are also urged to sign up and customize the types of alerts they'd like to receive.

Media Contact

Michelle Durand
Chief Communications Officer
mdurand@smcgov.org



400 County Center
Redwood City, CA 94063
(650) 363-4000

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Killer Robots Outlawed



(ReclaimingAmerica.net) – The members of the San Francisco city legislature have voted unanimously to backtrack on last week's decision to allow the use of "killer robots" by the local police.

All eleven members of San Francisco's Board of Supervisors are Democrats. Last week they voted 8-3 in favor of approving the deployment of explosive-armed robots to kill or incapacitate criminals.

Their vote made national headlines, sparking backlash from various sides of the political spectrum. That includes far-left activists and officials who slammed the use of killer robots as something that would "disproportionately" affect people of color and poorer Americans.

With their new vote, the San Francisco supervisors decided to ban the police from deploying robots in any lethal manner, The National Review reported, citing The Associated Press.

However, the liberal-dominated city's Supervisory Board still directed the issue to one of its committees for additional discussions.

Among those who voted in the minority against the use of killer robots last week was board president Shamman Walton, who said it would hurt disadvantaged groups.

Another opponent of last week's preliminary decision, Supervisor Dean Preston, welcomed its reversal in a prepared statement released after the new vote.

"The people of San Francisco have spoken loud and clear: There is no place for killer police robots in our city," Preston said.

"We should be working on ways to decrease the use of force by local law enforcement, not giving them new tools to kill people," he argued.

Earlier this week, ahead of the second vote, there was a protest rally outside the San Francisco city hall.

"We all saw that movie ... No Killer Robots," read the protesters' banners.

The police the San Francisco board had approved last week stipulated that a limited number of senior law enforcement officials would be able to authorize the use of deadly killer robots.

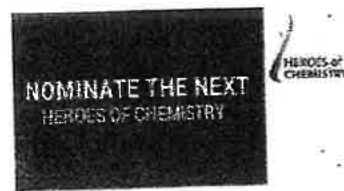
It said they would be able to do that only in cases "when [there is] risk of loss of life to members of the public or officers" and the killer robots "outweigh other force options available to SFPD."

The policy allowed the police "to contact, incapacitate, or disorient violent, armed, or dangerous suspects" through robots armed with explosives.

The San Francisco Police Department has a dozen functioning robots.

Those have been used for inspecting suspected bombs, executing warrants, and accessing hazmat and low-visibility situations.

The votes by the San Francisco's board came after a new California state law – California Assembly Bill 481 – required that local legislatures issue directions on how their police departments could utilize military-style equipment, such as robots.



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The Crimes Of Lead

Research on the toxic metal's effects on the brain bolsters the hypothesis that childhood exposure is linked to criminal acts

By Lauren K. Wolf

Department: Science & Technology | Collection: Life Sciences
News Channels: Biological SCENE, Environmental SCENE
Keywords: lead poisoning, violence, crime, homicide, blood-lead levels, neurotoxicity, myelin, gray matter, brain damage

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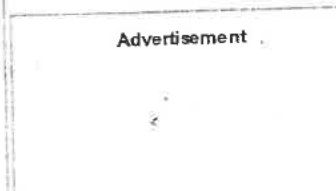
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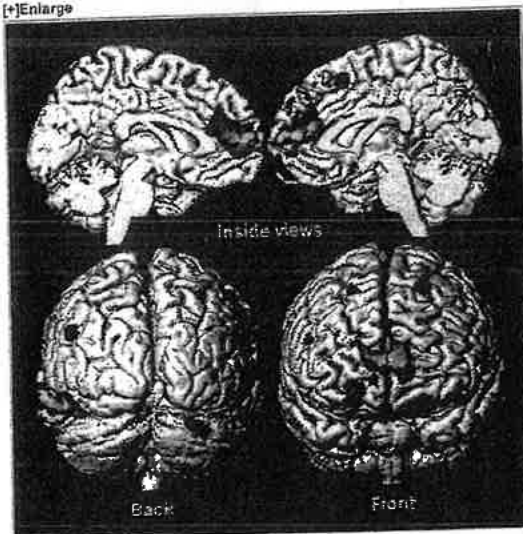
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LEAD'S LEGACY

Composite MRI images of about 160 members of the Cincinnati Lead Study show that childhood exposure to element 82 causes gray matter loss (orange areas), especially in frontal areas of the brain.

Credit: Courtesy of Kim Cecil

When crime rates began to drop across the U.S. during the 1990s, city officials and criminologists were thrilled—but baffled. Violent acts, most often committed by young adults, had reached an all-time high at the start of the decade, and there was no sign of a turnaround.

By the close of the '90s, though, the homicide rate had declined more than 40% throughout the country. Economists and criminologists have since proposed reasons for the unexpected plummet. Some have pointed to an increase in police officers. Others have suggested a rise in the number of offenders put behind bars. Economist and "Freakonomics" coauthor Steven D. Levitt famously hypothesized that the legalization of abortion in 1973 even played a role. Once the Supreme Court decided *Roe v. Wade*, he argued, fewer unwanted babies grew into disturbed, crime-prone adults two decades later.

But recently, experts have been kicking around another possible player in the crime drop of the '90s: lead. Cars burning leaded gasoline spewed the heavy metal into the air until 1973, when the Environmental Protection Agency mandated the fuel's gradual phaseout. Lead-based paint was banned from newly built homes in 1978. Because of these actions, children born in the mid- to late-1970s grew up with less lead in their bodies than children born earlier. As a result, economists argue, kids born in the

'70s reached adulthood in the '90s with healthier brains and less of a penchant for violence.

Today, the Centers for Disease Control & Prevention considers 5 micrograms per deciliter of lead in a child's blood to be abnormal. Studies have shown that people who grew up with blood-lead levels at or above this threshold are more likely to have impaired cognition than those who grew up with less lead in their blood. In 1976, the average U.S. resident had a blood-lead level of 16 µg/dL, according to the National Health & Nutrition Examination Survey. By 1991, when there was less lead in the air and in housing, the average had dropped to 3 µg/dL.

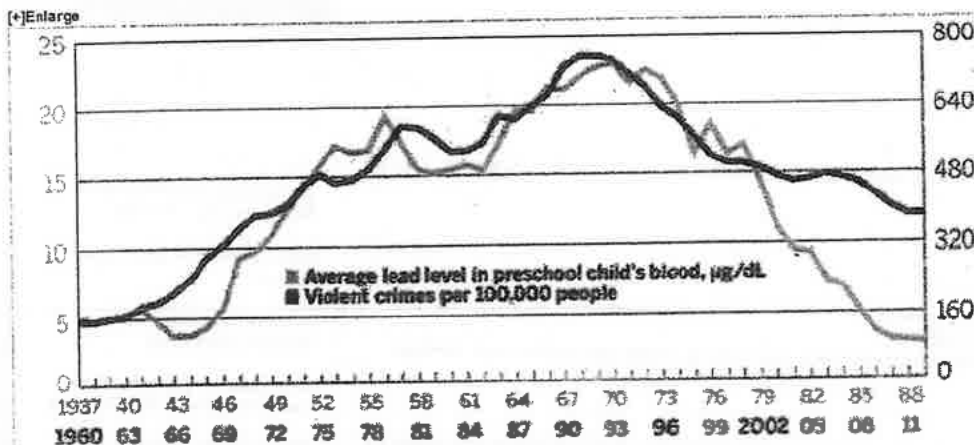
As the lead-crime hypothesis gains traction in economics circles, critics are invoking the "correlation does not equal causation" mantra. But scientists argue that there is evidence that lead exposure increases aggression in lab animals. And even though lead, one of the oldest known poisons, affects the brain in a dizzying number of ways, researchers are beginning to tease out some of the mechanisms by which it might trigger violence in humans.

During the 1960s, doctors couldn't label a child as lead poisoned unless he or she had a blood-lead level of at least 60 µg/dL—CDC's defined limit at the time. But researchers like University of Pittsburgh psychiatrist Herbert L. Needleman questioned

the cut-off value. Surely if 60 µg/dL was toxic, 50 µg/dL couldn't be completely harmless.

Needleman and others began observing "silent lead poisoning" in children with blood-lead levels below the established limit. Rather than overt physical symptoms like hallucinations and kidney damage, these kids had low IQ scores, attention problems, and antisocial tendencies. As more and more reports of these deficits filtered in, CDC lowered the blood-lead level it deemed acceptable for kids further and further: In 1970, the amount was 40 µg/dL, and by 1991, it was 10 µg/dL.

Some physicians noticed that children exposed to blood-lead levels below 50 µg/dL could also be aggressive or violent. In 1996, Needleman and his group followed up on these anecdotal observations by examining a few hundred 12-year-old boys in the Pittsburgh area. The researchers measured the amount of lead in the boys' bones with X-ray fluorescence to get an idea of how much of the heavy metal their participants were exposed to during childhood. The boys rated worst by their parents and teachers in terms of aggressive and antisocial behaviors had been exposed to the highest levels of lead (*J. Am. Med. Assoc.* 1996, DOI: 10.1001/jama.1996.03530290033034).



A timeline of lead reduction

1970	1973	1978	1991	1996	2012
CDC sets acceptable blood-lead level of 40 µg/dL	EPA mandates a phaseout of leaded gasoline	CPSC bans residential lead paint	CDC sets acceptable blood-lead level of 10 µg/dL	EPA eliminates lead from all U.S. motor fuel	CDC describes blood-lead level of >5 µg/dL as elevated

GETTING THE LEAD OUT

Economists hypothesize that regulation of leaded gasoline and lead paint in the 1970s caused crime rates to drop in the U.S. about 20 years later. CPSC = Consumer Product Safety Commission. SOURCES: Rick Nevin, FBI Uniform Crime Reporting Statistics

In 2002, Needleman's team delved deeper by studying 15-year-old boys who had been arrested and sentenced by the Allegheny County Juvenile Court in Pennsylvania. The kids who had been in trouble with the law had an average bone-lead level of 11 ppm—6% higher than a control group of boys without a history of arrest (*Neurotoxicol. Teratol.* 2002, DOI: 10.1016/s0892-0362(02)00269-6).

Looking for explanations of the '90s crime drop in the U.S., economists and crime experts latched onto these and other epidemiology studies. "We saw these correlations for individuals and thought, 'If that's true, we should see it at an aggregate level, for the whole population,'" says Paul B. Stretesky, a criminologist at the University of Colorado, Denver. In 2001, while at Colorado State University, Stretesky looked at data for more than 3,000 counties across the U.S., comparing lead concentrations in the air to homicide rates for the year 1990. Correcting for confounding social factors such as countywide income and education level, he and colleague Michael J. Lynch of the University of South Florida found that homicide rates in counties with the most extreme air-lead concentrations were four times as high as in counties with the least extreme levels (*Arch. Pediatr. Adolesc. Med.* 2001, DOI: 10.1001/archpedi.155.5.579).

Others have found similar correlations for U.S. cities, states, and even neighborhoods. In 2000, Rick Nevin, now a senior economist with ICF International, saw the trend for the entire country (*Environ. Res.*, DOI: 10.1006/enrs.1999.4045). In general, these researchers see blood-lead levels and air-lead levels increase, peak in the early 1970s, and fall, making an inverted U-shape. About 18 to 23 years later, when babies born in the '70s reach the average age of criminals, violent crime rates follow a similar trajectory.

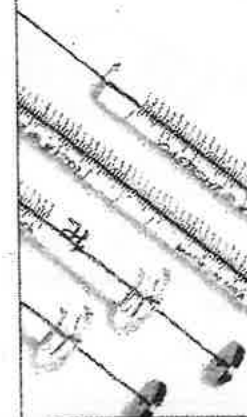
Still, "predicting crime trends is hard," Stretesky says. Anything that's followed a U-shape over the same period is going to correlate, he says. One example put forward in a 2013 *Mother Jones* article titled "America's Real Criminal Element Lead" is vinyl record sales. They rose after World War II and then declined in the 1980s and '90s, but that doesn't mean they're responsible for crime trends.

Seeking to strengthen the provocative lead-crime argument, in 2007, Nevin looked abroad, at countries where the crime rates didn't necessarily follow the inverted U pattern. In every case—New Zealand, West Germany, Italy, the U.K., and so on—the data



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NEWS SCAN

GETTING THE LEAD OUT

Lead service pipes, the smaller pipes that branch out from the mains, are found in many U.S. cities in the Northeast and upper Midwest, according to the most recent national study, a 1990 American Water Works Association report. It tallied approximately 6.4 million lead connections and 3.3 million lead service lines. The report noted that 61,000 lead lines are replaced annually, but even so, millions are probably still in service. Chloramines most likely cause a problem in systems that have lead dioxide scales. Unfortunately, no one knows how many water systems have such scales.

and ammonia—called chloramines—instead of chlorine. Some 30 percent of major U.S. water companies currently take this route, and the proportion will probably grow as limits on disinfection by-products are tightened during the next few years. Because no one has investigated the effects of chloramines on corrosion in drinking-water systems, meeting DBR requirements may mean violating the 1991 lead-copper rule, which sets maximum limits on these metals (for lead, 15 ppb).

Evidence for chloramines' effect on Washington's pipes comes from EPA chemist Michael Schock. He discovered that different mineral scales—especially lead dioxide scales—are particularly vulnerable to changes in water chemistry. With chlorine, Washington's water was highly oxidizing. As a result, the mineral scales that formed consisted of lead dioxide, which Schock has found in every sample of Washington's lead service lines that he has examined. The switch to chloramines lowered the oxidizing potential of D.C.'s water, which probably dissolved the lead dioxide scale and thereby liberated the lead.

Corrosion scientists warned about potential conflicts between the two rules. "We were concerned that drastic changes in water treatment could disturb scales and mobilize metals," says one scientist involved in the investigation of the D.C. lead problem, who asked

not to be named. Another researcher echoed the point: "There was essentially no research concerning interactions between the lead-copper rule and the DBR. There was zero consultation with corrosion scientists even though we screamed for it."

The EPA noted potential conflicts in a 1999 publication entitled *Microbial and Disinfection Byproducts Rules Simultaneous Compliance Guidance Manual*. But the document offers little in the form of specific procedural advice, scientists say.

Virginia Tech engineer Marc Edwards, a former EPA consultant who first called attention to the D.C. problem, has warned the agency and the water industry for years that changes in drinking-water treatment were liable to cause trouble for home plumbing systems. He believes that lead problems may lurk in other cities, too. Chemist Mark Benjamin of the University of Washington concurs, noting that the factors affecting corrosion—the pipe material, the mineral scales and the water quality—are universal in water systems. "It would be remarkable and unlikely to think that these factors just happened to combine in a unique way in Washington," he states.

Rebecca Renner covers environmental sciences from Williamsport, Pa.

news

SCAN

TOXICOLOGY

Leading to Lead

CONFLICTING RULES MAY PUT LEAD IN TAP WATER BY REBECCA RENNER

The public reporting last year of high lead levels in the drinking water in Washington, D.C., has led to a congressional investigation, the firing of a D.C. health official, and calls for a review of the 1991 law that is supposed to keep the neurotoxic metal out of drinking water. That law, however, may not contribute to the problem as much as the changes made to disinfection procedures resulting from another water safety rule. The

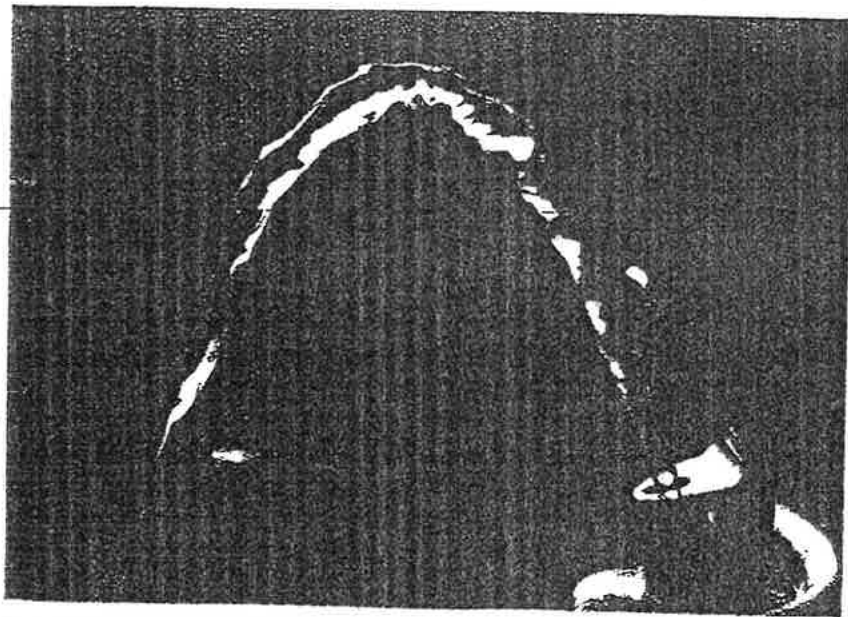
conflicting regulations mean that other municipalities may also soon find too much lead coming out of their faucets.

To date, at least 157 houses in D.C. have lead levels at the tap higher than 300 parts per billion (ppb), and thousands more have exceeded the Environmental Protection Agency's limit of 15 ppb. Residents have received contradictory advice about whether tap water is safe to drink and whether replacement of lead service lines will solve the problem.

Lead should not normally enter the flow, because layers of different lead-snaring minerals naturally build up inside the pipes. But these mineral scales act as a trap for lead only as long as they remain insoluble; a sudden shift in water chemistry can change that.

Such a change may have triggered the D.C. problems. In 2000 Washington Aqueduct, the area's water treatment plant, modified its procedures to comply with the 1998 Disinfection Byproducts Rule (DBR), which restricts the presence of so-called halogenated organic compounds in water. These compounds form when disinfectants, particularly chlorine, react with natural organic and inorganic matter in source water and in distribution systems. The DBR directs water companies to make sure that the by-products, which might cause cancer, stay below a certain level.

One of the most common ways to comply with the DBR is to use a mixture of chlorine



TASTE OF METAL: Modified disinfection methods may have changed the chemistry of drinking water in Washington, D.C., making it more likely to dissolve lead-encasing minerals in pipes.

PHILIP JAMES CORWIN CORBIS

Water Worries

Some experts now believe that the risks of fluoridated drinking water may outweigh the benefits.



Danger on Tap?

For 55 years, fluoride has been added to the water supply in many communities to help prevent tooth decay. But after all this time, there are surprising questions about its safety. Could it be hurting your health? Read this before you take another drink.

By Sharlene K. Johnson

Until recently, I had never given much thought to fluoride. I took it for granted that the mysterious stuff in my toothpaste and drinking water was good for me, like seat belts and vegetables.

But a few years ago, the water board in my town of Fort Collins, Colorado, recommended that the city stop fluoridating our water. The board had researched the issue at the city's request and concluded that adding fluoride to drinking water isn't necessary and might even pose health risks.

That was the beginning of a heated debate that resulted in a ballot issue in our municipal election this past spring. At first, despite the uproar, I paid little attention. My family doctor and dentist both favor water fluoridation, and the newspaper was full of letters every day from health experts urging the community to "save our children's teeth" by voting for fluoride. As a new mother, the last thing I

wanted to do was jeopardize my baby girl's dental health.

As voting day approached, however, I became concerned about startling claims being made by those who were anti-fluoride, including at least one local dentist, and I decided to investigate. Could my city really be using a waste product from the fertilizer industry as the source of our fluoride? Was there any credible evidence that too much fluoride damages bones? Was it true that the chairman of the water board—Thomas Sanders, PhD, a Colorado State University professor of civil engineering and water-quality expert who had supported fluoridation for 30 years—stopped drinking our city tap water as a result of the board's research?

The answers turned out to be yes, yes, and yes.

"When I started reading the literature, I came to the conclusion that in this country, we were supporting fluoridation without enough facts," Sanders says. "I thought

[our city was] using a very good quality sodium fluoride as the additive. When I found out it was from a fertilizer factory, that it was hazardous waste, and we were using it because it's cheaper, I was absolutely shocked."

He's not the only one. The addition of fluoride to drinking water is becoming a hot-button topic in more and more communities across the country, including at least five states—Arkansas, Massachusetts, Nebraska, New Jersey, and Oregon—where it has become a statewide legislative issue.

At the local level, many towns are opting to just say no to fluoride in the water. Since 1990, at least 130 communities in 30 states have voted against it. "Often we'll hear a city councillor say something like, 'Look, I'm not a doctor or a scientist, but there are so many questions outstanding that I think we should err on the side of caution,'" says Michael Connett, project director for the Fluoride Action Network (FAN), a Vermont-based organization of activists, environmentalists, and scientists that aims to educate the public about the risks of fluoridation.

Just how effective is fluoridated water at preventing tooth decay? Do we really need it? And is it safe for you and your family to drink? This is what you need to know.

Why We Add Fluoride to Our Water

"Fluoride" refers to a group of chemical compounds that contain the element fluorine. Sodium fluoride, often used in toothpaste, is one; hexafluorosilicic acid, the additive most commonly used to fluoridate drinking water, is another.

Trace amounts of fluoride occur naturally in most water sources. In some areas, the water has very high levels of the substance, a quirk of nature that led to the discovery of the chemical's effect on teeth in Colorado in the early thirties. In 1945, Grand Rapids, Michigan, became the first city to add a small amount of fluoride to its water, as part of a 15-year study to test the chemical's ability to reduce cavities. That same year, two cities in New York became part of a 10-year research project designed to compare the health of children in a town that had fluoridated water (Newburgh) with that of kids in one with nonfluoridated water (Kingston).

Just five years later, citing a 65 percent reduction in cavities among Newburgh's children, the U.S. Public Health Service (PHS) began urging communities everywhere to add fluoride to their water supplies.

The Centers for Disease Control and Prevention says fluoride helps prevent tooth decay by inhibiting the production of acids in the mouth that dissolve tooth enamel and making the enamel more resistant. About two-thirds of the U.S. population supplied by public water utilities—

approximately 170 million people—receive fluoridated water, according to 2002 figures from the CDC. And adding fluoride to drinking water is endorsed by almost every medical organization in the United States, including the surgeon general, the CDC, the American Dental Association, the American Medical Association, and the American Academy of Pediatric Dentistry.

"Fluoride is nature's cavity fighter," explains ADA spokesman John Stamm, DDS, dean emeritus and professor at the University of North Carolina School of Dentistry, in Chapel Hill. "It really benefits disproportionately those who are at highest risk for tooth decay, and that is particularly true among children who lack adequate access to health care. It is the most cost-effective measure of preventing tooth decay that we have, and it has a superb safety record. All of those things make a very convincing case for the benefits of water fluoridation."

Does Fluoride Really Work?

Most medical experts agree—and numerous studies show—that fluoride in toothpaste and drinking water does help prevent cavities to some extent. What's being questioned is how much it helps and whether we should ingest it.

After reviewing nearly two dozen studies on the effectiveness of community water fluoridation, the government's Task Force on Community Preventive Services determined in 2002 that there was "strong evidence" that fluoridation prevents cavities. And at first glance, a 1990 study of more than 39,000 U.S. school children by the National Institute of Dental and Craniofacial Research—the largest such survey ever conducted—seems to support the evidence. This study found that children who had always been exposed to fluoridated water in their community scored about 18 percent lower in terms of "decayed, missing, and filled surfaces" than those who had never lived in

Fluoride does help prevent cavities to some extent. What's debatable is whether we should be ingesting it.

a community with fluoridated water. Yet the number breaks down to an average of just 0.6 tooth surfaces per child.

The debate over whether ingesting fluoride through our drinking water provides substantial benefit to our teeth revolves around how the substance works. The CDC stated, in a 2001 report, that the benefits of fluoride are now known to be mainly topical. According to the California-based Dental Health Foundation, "Fluoride primarily protects the smooth surfaces of teeth." Not only that, but "Pit and fissure tooth surfaces [the areas people use to bite into and chew food] were the site of 83 percent of tooth decay in U.S. children in 1986 to '87."

What many health experts worry about most, however, is the damage fluoride may be doing to our bones. That's where our bodies tend to store it, so the implications could be serious—especially for children, who store more of the fluoride they ingest than adults do. According to the Department of Health and Human Services' Agency for Toxic Substances and Disease Registry, fluoride levels just five times greater than what's typically found in fluoridated water can result in bones that are both denser and more brittle and fragile than normal bone.

So great is the concern that one prominent authority, Hardy Limeback, DDS, associate professor and head of preventive dentistry at the University of Toronto, and a former supporter of water fluoridation, reversed his position on the issue a few years ago and released a written statement saying that new evidence indicates that the benefits of adding fluoride to water no longer outweigh the risks. Said Limeback: "Several recent epidemiological studies suggest that only a few years of fluoride ingestion from fluoridated water increases the risk for bone fracture."

To protect against crippling skeletal fluorosis, a rare

bone disease caused by long-term exposure to very high levels of fluoride, the EPA set a maximum contaminant level (MCL) for fluoride in drinking water at four parts per million back in 1986. As a result of new studies on fluoride's effect on bones, the agency has requested a fresh review of fluoride research by the National Academy of Sciences in order to determine if the MCL should be lowered. The results are expected early next year.

So What Should You Do?

The best advice: Do what feels right—and safe—for your family. If you're worried about ingesting too much fluoride, find out if it's in your water supply. If it is, consider installing a filter. (For more on this, see the box below.)

That's what I'm doing. In Fort Collins, when fluoride was put to the vote in April, residents elected to continue adding it to the water. Opponents are hoping to get the issue back on the ballot soon; in the meantime, my husband and I are going to install a water filter. While we can't avoid fluoride entirely, what I've learned has convinced me that it doesn't belong in my family's drinking water. 🐾

THE FLUORIDE FIX: 8 Ways to Reduce Your Exposure

TO FIND OUT HOW MUCH FLUORIDE IS IN YOUR DRINKING WATER, call your local water utility or your city's water department. The CDC recommends a fluoride level of about 1 ppm, which the agency says offers the most protection against tooth decay with the lowest risk of dental fluorosis. Some scientists believe even that is too much, given all the other sources of fluoride in our diets.

When the level in water exceeds 2 ppm, the EPA requires your local water supplier to notify you that the risk of severe to moderate dental fluorosis is high. But it has up to a full year to do so.

THE BEST WAY TO REMOVE FLUORIDE from your drinking water is to have a reverse osmosis filter unit installed under your kitchen sink by a plumber. (Pitcher and faucet-mounted carbon-based water filters do not

get rid of fluoride.) Reverse osmosis filters work by pumping water through a semipermeable membrane, allowing small particles (such as hydrogen and oxygen) to pass through, while leaving larger ones (such as fluoride, lead, and chlorine) behind. The Watts Premier 5-Stage Reverse Osmosis System (\$200, 800-752-5582) is certified by the National Sanitation Foundation to remove fluoride. For a list of other certified filters, call 800-673-6275 or go to nsf.org.

In addition, the Fluoride Action Network recommends mixing infant formula with nonfluoridated water, avoiding the use of Teflon-coated pans, which may produce fluorinated gases at high temperatures, according to the Environmental Working Group, and limiting your consumption of the following foods and beverages that are high in fluoride:

■ **SODA, BEER, AND JUICE DRINKS** often contain fluoride because many are produced at facilities that use fluoridated water. Buy a juicer and make your own juice drinks, or choose organic or conventional juices that are not reconstituted.

■ **BOTTLED WATER** may contain as much as 2.4 ppm of fluoride added during the bottling process; this must be listed on the label. But fluoride that occurs naturally in the water does not have to be labeled. The only way to know for sure whether it's in the water is to call the bottling company and ask.

■ **PROCESSED FOODS** often contain fluoride because of water used during the manufacturing process. If you're concerned, eat fresh, homemade foods as often as possible instead.

■ **BREWED AND INSTANT TEA** As tea plants grow, they store fluoride from

the soil in their leaves. In a recent study at Washington University School of Medicine, samples of one type of instant tea had an average of 6.5 ppm of fluoride. The amount in brewed tea ranges from 2.4 to 3.9 ppm, according to the USDA. Other researchers have found levels as high as 6 ppm. Herbal teas may contain lower levels of fluoride; however, no research has been done on this. You may want to switch to coffee, which contains about 0.9 ppm of fluoride.

■ **WINE** Fluoride-based pesticides are sometimes used on grapes and raisins; the EPA allows residues from such pesticides to be as high as 7 ppm. In Europe, wine may have no more than 1 ppm fluoride, so European wines (or wines exported to those countries) should be below that limit. Organic wines may also be a good choice. —SKJ

made in places where the water is fluoridated. Some experts worry that children, and babies in particular, are getting too much of fluoride. Even organizations that promote water fluoridation, such as the American Academy of Pediatric Dentistry, say that infants under six months don't need fluoride supplementation. Yet some pediatricians go so far as to prescribe vitamin drops with fluoride for infants and children, even in communities with a fluoridated water supply.

Excess fluoride can actually damage children's teeth, resulting in a condition called dental fluorosis. Mild forms may show up as barely visible white markings on the enamel; in severe cases, teeth may be stained, pitted, brittle, and more cavity-prone. Adult teeth are not susceptible, but any damage done in childhood is irreversible.

Jared Frederickson, a 21-year-old college student from Colorado Springs, has such a severe case of fluorosis that he had cosmetic laminates applied to his front teeth to hide the discoloration when he was in seventh grade. "My baby teeth had a lot of brown stains, and my adult teeth were worse; they had pits and more brown spots,"



Fluoride debate widespread

Both sides of issue have victories
...ies around the state, nation



Headline News
Citizens in towns such as Springfield, Massachusetts, and Fort Collins, Colorado, are fighting over fluoride.

Frederickson says. Today, he has so much decay that he bought a supplemental dental insurance policy to pay the expenses that exceed his regular coverage.

Severe cases such as Frederickson's are relatively rare, but all degrees of dental fluorosis are on the rise. In 1991, the U.S. Department of Health and Human Services compared fluorosis rates in children across the country in the forties with rates in children in the eighties. In communities with "optimal" fluoridation, mild dental fluorosis increased from about 13 percent to about 22 percent. The increase was attributed to multiple sources of fluoride exposure.

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Poisons All Around Us: What You Need to Know

Tap Water Is Dangerously Polluted

Despite decades of effort to clean up lakes, streams, and groundwater — and regulations and laws that have been passed to reduce industrial pollution of water supplies — new forms of pollution are being discovered daily.

On one hand, we are told by local and federal health authorities that municipal drinking water supplies are cleaner and healthier than ever. Yet there are reports, usually buried within documents not readily available to the public, indicating that major problems still face us — and that they may be getting worse.

With the massive industrialization that followed World War II, hundreds of thousands of synthetic chemicals were manufactured. Tons of these chemicals were dumped in lakes, streams, and rivers.

In the ensuing decades, scientists discovered that a significant number of these chemicals are carcinogenic — that is, over years of exposure they can cause cancer in animals and humans.

The most significant carcinogens in the water

supply include:

- Arsenic
- Herbicides
- Pesticides
- Fungicides
- Industrial by-products

These chemicals have all been linked to increased rates of lung, bladder, stomach, brain, and colon cancers.

In addition, the chlorination of drinking water can lead to formation of chloride-organic combinations called organochlorine compounds. Many of these compounds have also been shown to be toxic to cells and cause cancers.

Other contaminants — especially aluminum, lead, and copper — can have profound effects on health.

Compelling evidence indicates that aluminum in water is associated with a significantly increased risk of Alzheimer's disease, especially if the water also has fluoride added to it.

Another link between water fluoridation and metal toxicity concerns the levels of lead in water. It has been demonstrated that elevated levels of lead are responsible for a number of adverse health conditions, including:

- Hypertension
- Anemia
- Accelerated hardening of the arteries
- Increased violent behavior
- Loss of impulse control (e.g. "road rage")
- Increased suicide rates
- Learning problems
- Increased homicide rates

Even small elevations in blood lead levels, as low as 10 micrograms per liter and possibly as low as 5 micrograms per liter, can produce adverse behavioral effects.

In recent years, there has also been more concern about our water supplies being infiltrated by chemicals in pesticides called xenoestrogens, which act like estrogens.

These compounds interact with the body's estrogen receptors, and may increase the risk of breast cancers, cause early and overdevelopment

Best Way to Filter Water

Water can be filtered by reverse osmosis, ceramic filtration, silver impregnated filters, or multilayered filter systems, all of which have their advantages.

The big problem with most filters is that they do not remove fluoride. Reverse osmosis filters remove fluoride, but they have to be changed every three months because fluoride burns holes in the filter.

Based on my studies, the best way to purify water is to distill it. Some will say that distilling water removes the beneficial minerals, but these can either be taken as separate supplements or can be added to water later. And that, in fact, is what many manufacturers of bottled water do.

Distilling creates water with a neutral pH, kills all microorganisms, and removes fluoride as well as other harmful metals. The one problem is that the volatile chemicals are condensed in the final water container.

To solve this problem, the better distillers have a carbon filter to remove volatile gases during the condensation process.



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER

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July 10, 2023

Subject: Changes for Public Water Systems that add fluoride.

Dear Water System Owner,

During this past Legislative Session, House Bill 1251 was passed and signed by the Governor on April 20, 2023. This bill relates to changes to Revised Code of Washington (RCW 70A.125), requiring public water systems that either begin or discontinue fluoridation on a continuing basis to notify customers and the Department of Health, Office of Drinking Water at least 90 days prior to official vote or decision on the matter. Notification can be made either by radio, television, newspaper, mail, electronically, or by any combination of methods that most effectively notifies customers - see [1251-S.E HBR FEB 23 \(wa.gov\)](#).

The decision to fluoridate drinking water is a community decision. In addition, water systems must receive written approval for fluoridation treatment facilities from the Department of Health. The Board of Health has prescribed the optimal fluoride concentration (0.7 milligrams per liter [mg/L]), the operating tolerance for fluoridation (0.5-0.9 mg/L), as well as requirements for fluoridation testing that must occur each business day and each month. Fluoride test results must be submitted to the Department each month.

The Department of Health supports community water fluoridation as a sound, population-based public health measure - see [Support for fluoridation \(wa.gov\)](#). These new notification requirements go into effect beginning July 23, 2023. Please refer to the DOH fluoride website for more information on new fluoridation requirements at [Fluoridation of Drinking Water | Washington State Department of Health](#).

Sincerely,

A handwritten signature in black ink, appearing to read "Holly R. Myers".

Holly R. Myers

~~Director, Office of Drinking Water~~
Environmental Public Health
Washington State Department of Health

Fluoride in Drinking Water Increases Toxicity of Aluminum

Posted: July, 2001

In 1994, the New York Times reported a scientific study that revealed that aluminum and fluoride in water could be responsible for the alarming increase in Alzheimer's Disease and senile dementia.

This confirmed the long-held suspicion of environmental writer George Glasser that fluoride has the ability to react with other toxic minerals in drinking water. Serious drug interactions are common in medicine, and for years Glasser has badgered various US government agencies to investigate this specific interaction between fluoride and other substances.

"Aluminum sulfate (alum) is used to clarify drinking water and I could see the possible relationship with Alzheimer's-like dementia," said Glasser. "In 1999, the US Environmental Protection Agency finally reviewed three studies carried out by scientists at Binghamton University in New York. The scientists reported 80% death rates, kidney damage and brain damage in rats exposed to half of one milligram of aluminum fluoride complexes in a liter of drinking water. This is less than half of the amount of fluoride which is added in fluoridation schemes.

Finally, the National Toxicology Program was asked to commission studies to determine the extent of neurotoxic damage from aluminum in drinking water, particularly stressing the fluoride interaction."

Last October, a Report by the National Institutes of Environmental Health Sciences (NIEHS) acknowledged that fluoride has been observed to have synergistic effects on the toxicity of aluminum.

"I was particularly pleased when the US Environmental Protection Agency report by Urbansky and Schock on the toxicity of lead and fluoride in drinking water confirmed that fluoride complexes with other substances in the water. They also acknowledged that most drinking water contains a substantial amount of fluoro-aluminum complexes. This should be a warning to dentists who hold with the simplistic notion that fluoride only affects teeth and is perfectly safe in drinking water."

According to the NIEHS Report, most water treatment processes result in increased levels of aluminum in the finished drinking water.

It stated that fluoridation will result in aluminum fluoride complexes which will enhance neurotoxicity, or that fluoride itself will enhance uptake and synergise the toxicity of the aluminum.

Other studies have shown that in the presence of fluoride, aluminum leaches out of cookware. Boiling fluoridated tap water in an aluminum pan leached almost 200 parts per million (ppm) of aluminum into the water in 10 minutes.

Leaching of up to 600 PPM occurred with prolonged boiling. Different releases of aluminum depend upon the composition of the pan and the type of food being cooked.

Using non-fluoridated water showed almost no leaching from aluminum pans.

Glasser is frustrated that the Report recommended further studies. "There are more than 40,000 studies on fluoride in the scientific literature. How many more do they need? The

Review

Developmental Fluoride Neurotoxicity: A Systematic Review and Meta-Analysis

Anna L. Choi,¹ Guifan Sun,² Ying Zhang,³ and Philippe Grandjean^{1,4}¹Department of Environmental Health, Harvard School of Public Health, Boston, Massachusetts, USA; ²School of Public Health, China Medical University, Shenyang, China; ³School of Stomatology, China Medical University, Shenyang, China; ⁴Institute of Public Health, University of Southern Denmark, Odense, Denmark

BACKGROUND: Although fluoride may cause neurotoxicity in animal models and acute fluoride poisoning causes neurotoxicity in adults, very little is known of its effects on children's neurodevelopment.

OBJECTIVE: We performed a systematic review and meta-analysis of published studies to investigate the effects of increased fluoride exposure and delayed neurobehavioral development.

METHODS: We searched the MEDLINE, EMBASE, Water Resources Abstracts, and TOXNET databases through 2011 for eligible studies. We also searched the China National Knowledge Infrastructure (CNKI) database, because many studies on fluoride neurotoxicity have been published in Chinese journals only. In total, we identified 27 eligible epidemiological studies with high and reference exposures, end points of IQ scores, or related cognitive function measures with means and variances for the two exposure groups. Using random-effects models, we estimated the standardized mean difference between exposed and reference groups across all studies. We conducted sensitivity analyses restricted to studies using the same outcome assessment and having drinking water fluoride as the only exposure. We performed the Cochran test for heterogeneity between studies, Begg's funnel plot, and Egger test to assess publication bias, and conducted meta-regressions to explore sources of variation in mean differences among the studies.

RESULTS: The standardized weighted mean difference in IQ score between exposed and reference populations was -0.35 (95% confidence interval: -0.56, -0.35) using a random-effects model. Thus, children in high fluoride areas had significantly lower IQ scores than those who lived in low-fluoride areas. Subgroup and sensitivity analyses also indicated inverse associations, although the substantial heterogeneity did not appear to decrease.

CONCLUSIONS: The results support the possibility of an adverse effect of high fluoride exposure on children's neurodevelopment. Future research should include detailed individual-level information on prenatal exposure, neurobehavioral performance, and covariates for adjustment.

Key words: fluoride, intelligence, neurotoxicity. *Environ Health Perspect* 120:1362–1368 (2012). <http://dx.doi.org/10.1289/ehp.1104912> [Online 20 July 2012]

A recent report from the National Research Council (NRC 2006) concluded that adverse effects of high fluoride concentrations in drinking water may be of concern and that additional research is warranted. Fluoride may cause neurotoxicity in laboratory animals, including effects on learning and memory (Chioca et al. 2008; Mullenix et al. 1995). A recent experimental study where the rat hippocampal neurons were incubated with various concentrations (20 mg/L, 40 mg/L, and 80 mg/L) of sodium fluoride *in vitro* showed that fluoride neurotoxicity may target hippocampal neurons (Zhang M et al. 2008). Although acute fluoride poisoning may be neurotoxic to adults, most of the epidemiological information available on associations with children's neurodevelopment is from China, where fluoride generally occurs in drinking water as a natural contaminant, and the concentration depends on local geological conditions. In many rural communities in China, populations with high exposure to fluoride in local drinking-water sources may reside in close proximity to populations with low exposure (NRC 2006).

Opportunities for epidemiological studies depend on the existence of comparable population groups exposed to different levels

of fluoride from drinking water. Such circumstances are difficult to find in many industrialized countries, because fluoride concentrations in community water are usually no higher than 1 mg/L, even when fluoride is added to water supplies as a public health measure to reduce tooth decay. Multiple epidemiological studies of developmental fluoride neurotoxicity were conducted in China because of the high fluoride concentrations that are substantially above 1 mg/L in well water in many rural communities, although microbiologically safe water has been accessible to many rural households as a result of the recent 5-year plan (2001–2005) by the Chinese government. It is projected that all rural residents will have access to safe public drinking water by 2020 (World Bank 2006). However, results of the published studies have not been widely disseminated. Four studies published in English (Li XS et al. 1995; Lu et al. 2000; Xiang et al. 2003; Zhao et al. 1996) were cited in a recent report from the NRC (2006), whereas the World Health Organization (2002) has considered only two (Li XS et al. 1995; Zhao et al. 1996) in its most recent monograph on fluoride.

Fluoride readily crosses the placenta

(Registry 2003). Fluoride exposure to the developing brain, which is much more susceptible to injury caused by toxicants than is the mature brain, may possibly lead to permanent damage (Grandjean and Landrigan 2006). In response to the recommendation of the NRC (2006), the U.S. Department of Health and Human Services (DHHS) and the U.S. EPA recently announced that DHHS is proposing to change the recommended level of fluoride in drinking water to 0.7 mg/L from the currently recommended range of 0.7–1.2 mg/L, and the U.S. EPA is reviewing the maximum amount of fluoride allowed in drinking water, which currently is set at 4.0 mg/L (U.S. EPA 2011).

To summarize the available literature, we performed a systematic review and meta-analysis of published studies on increased fluoride exposure in drinking water associated with neurodevelopmental delays. We specifically targeted studies carried out in rural China that have not been widely disseminated, thus complementing the studies that have been included in previous reviews and risk assessment reports.

Methods

Search strategy. We searched MEDLINE (National Library of Medicine, Bethesda, MD, USA; <http://www.ncbi.nlm.nih.gov/pubmed>), Embase (Elsevier B.V., Amsterdam, the Netherlands; <http://www.embase.com>), Water Resources Abstracts (Proquest, Ann Arbor, MI, USA; <http://www.csa.com/factsheets/water-resources-set-c.php>), and TOXNET (Toxicology Data Network; National Library of Medicine, Bethesda, MD, USA; <http://toxnet.nlm.nih.gov>) databases to identify studies of drinking-water fluoride and neurodevelopmental outcomes in children. In addition, we searched the China National Knowledge Infrastructure (CNKI; Beijing, China; <http://www.cnki.net>) database to identify studies published in Chinese journals only. Key

Address correspondence to A.L. Choi, Department of Environmental Health, Harvard School of Public Health, Landmark Center 3E, 401 Park Dr., Boston, MA 02215 USA. Telephone: (617) 384-8646. Fax: (617) 384-8994. E-mail: achoi@hsph.harvard.edu. Supplemental Material is available online (<http://dx.doi.org/10.1289/ehp.1104912>).

We thank V. Malik, Harvard School of Public Health, for the helpful advice on the meta-analysis methods.

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The authors declare they have no actual or potential competing financial interests.

Why U.S. Environmental Protection Agency scientists opposes artificial water fluoridation

EPA Union explains why they are opposed to the fluoridation of public water supplies

Letter and References explaining why the United States Environmental Protection Agency (EPA) Scientists are opposed to the fluoridation of public water supplies. See also:

- Statement of Dr. J. William Hirzy, National Treasury Employees Union Chapter 280, before The Subcommittee on Wildlife, Fisheries and Drinking Water, United States Senate, June 29, 2000
 - EPA scientists take action against EPA for failing to protect public health -- Important scientific and technical considerations were ignored when the Recommended Maximum Contaminant Level (RMCL) for fluoride was set (1986 Amicus Brief).
 - The need for a Code of Ethics at the EPA became critical. Without an enforceable code of ethics with sanctions, the distortion of truth caused by the pressures of politics would continue.
 - Environmental Protection Agency Union fights back
-



CHAPTER 280
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May 1, 1999

WHY EPA'S HEADQUARTERS UNION OF SCIENTISTS OPPOSES FLUORIDATION

The following documents why our union, formerly National Federation of Federal Employees Local 2050 and since April 1998 Chapter 280 of the National Treasury Employees Union, took the stand it did opposing fluoridation of drinking water supplies. Our union is comprised of and represents the approximately 1500 scientists, lawyers, engineers and other professional employees at EPA Headquarters here in Washington, D.C.

The union first became interested in this issue rather by accident. Like most Americans, including many physicians and dentists, most of our members had thought that fluoride's only effects were beneficial - reductions in tooth decay, etc. We too believed assurances of safety and effectiveness of water fluoridation.

Then, as EPA was engaged in revising its drinking water standard for fluoride in 1985, an employee came to the union with a complaint: he said he was being forced to write into the regulation a statement to the effect that EPA thought it was alright for children to have "funky" teeth. It was OK, EPA said,

because it considered that condition to be only a *cosmetic* effect, not an adverse *health* effect. The reason for this EPA position was that it was under political pressure to set its health-based standard for fluoride at 4 mg/liter. At that level, EPA knew that a significant number of children develop moderate to severe dental fluorosis, but since it had deemed the effect as only cosmetic, EPA didn't have to set its health-based standard at a lower level to prevent it.

We tried to settle this ethics issue quietly, within the family, but EPA was unable or unwilling to resist external political pressure, and we took the fight public with a union *amicus curiae* brief in a lawsuit filed against EPA by a public interest group. The union has published on this initial involvement period in detail.⁴

Since then our opposition to drinking water fluoridation has grown, based on the scientific literature documenting the increasingly out-of-control exposures to fluoride, the lack of benefit to dental health from ingestion of fluoride and the hazards to human health from such ingestion. These hazards include acute toxic hazard, such as to people with impaired kidney function, as well as chronic toxic hazards of gene mutations, cancer, reproductive effects, neurotoxicity, bone pathology and dental fluorosis. First, a review of recent neurotoxicity research results.

In 1995, Mullenix and co-workers² showed that rats given fluoride in drinking water at levels that give rise to plasma fluoride concentrations in the range seen in humans suffer neurotoxic effects that vary according to when the rats were given the fluoride - as adult animals, as young animals, or through the placenta before birth. Those exposed before birth were born hyperactive and remained so throughout their lives. Those exposed as young or adult animals displayed depressed activity. Then in 1998, Guan and co-workers³ gave doses similar to those used by the Mullenix research group to try to understand the mechanism(s) underlying the effects seen by the Mullenix group. Guan's group found that several key chemicals in the brain - those that form the membrane of brain cells - were substantially depleted in rats given fluoride, as compared to those who did not get fluoride.

Another 1998 publication by Varner, Jensen and others⁴ reported on the brain- and kidney damaging effects in rats that were given fluoride in drinking water at the same level deemed "optimal" by pro-fluoridation groups, namely 1 part per million (1 ppm). Even more pronounced damage was seen in animals that got the fluoride in conjunction with aluminum. These results are especially disturbing because of the low dose level of fluoride that shows the toxic effect in rats - rats are more resistant to fluoride than humans. This latter statement is based on Mullenix's finding that it takes substantially more fluoride in the drinking water of rats than of humans to reach the same fluoride level in plasma. It is the level in plasma that determines how much fluoride is "seen" by particular tissues in the body. So when rats get 1 ppm in drinking water, their brains and kidneys are exposed to much less fluoride than humans getting 1 ppm, yet they are experiencing toxic effects. Thus we are compelled to consider the likelihood that humans are experiencing damage to their brains and kidneys at the "optimal" level of 1 ppm.

In support of this concern are results from two epidemiology studies from China^{5,6} that show decreases in I.Q. in children who get more fluoride than the control groups of children in each study. These decreases are about 5 to 10 I.Q. points in children aged 8 to 13 years.

Another troubling brain effect has recently surfaced: fluoride's interference with the function of the brain's pineal gland. The pineal gland produces melatonin which, among other roles, mediates the body's internal clock, doing such things as governing the onset of puberty. Jennifer Luke⁷ has shown that fluoride accumulates in the pineal gland and inhibits its production of melatonin. She showed in test animals that this inhibition causes an earlier onset of sexual maturity, an effect reported in humans as well in 1956, as part of the Kingston/Newburgh study, which is discussed below. In fluoridated Newburgh, young girls experienced earlier onset of menstruation (on average, by six months) than girls



Evidence Based



Prescription Drugs That Contain Fluoride (Search 325+ Drugs)

Updated November 27, 2024 by Casey J Krol

Prescription drugs should help you, right? But what if I told you many drugs contain fluoride...

Possibly causing more damage than good, in the long run.

Fluoride In Prescription Drugs



If having it in our water, tea and coffee wasn't bad enough, fluoride is also in our prescription drugs.

Fluorine is a common element added to drugs because it has the possibility of making medication more selective, increase its effectiveness, easier to administer and allows a molecule easier delivery to an active site in the body.¹

So to no surprise, 20-30% of all drugs sold contain fluoride, including some of the most well-known antidepressants and statins.²

Drugs That Contain Fluoride



Anesthetics



Antacids



Antibiotics



Anti-anxiety



Antidepressants



Anti-malarial



Arthritis



Anti-inflammatory



Cholesterol lowering



Chemotherapy

For example, in 2008, these were the top 10 selling drugs that contained the fluorine atom:

- Statins (Lipitor, Crestor, Vytorin, Zetia/Ezetimibe)
- Anti-inflammatories (fluticasone propionate, Celebrex)
- Antacids (Percid)
- Antidepressants (Lexapro)
- Neuroleptics (Risperdal)
- Antibiotics (Levaquin)²

But of course, with fluoride's benefits also comes the possibility of serious negative side effects.

Disclaimer (Must Read)

Before you make any decision regarding the medication you take or may take in the future, you should do so under the guidance of a trusted doctor.

The goal of this article is to help you question what's put into your body and open your mind to other, possibly better choices.

And in case there's nothing you can do about the medication you're on. You should dedicate the next 5 minutes to read all the way to the end. Where you'll learn 3 tips to minimize your risk of **fluoride toxicity**.

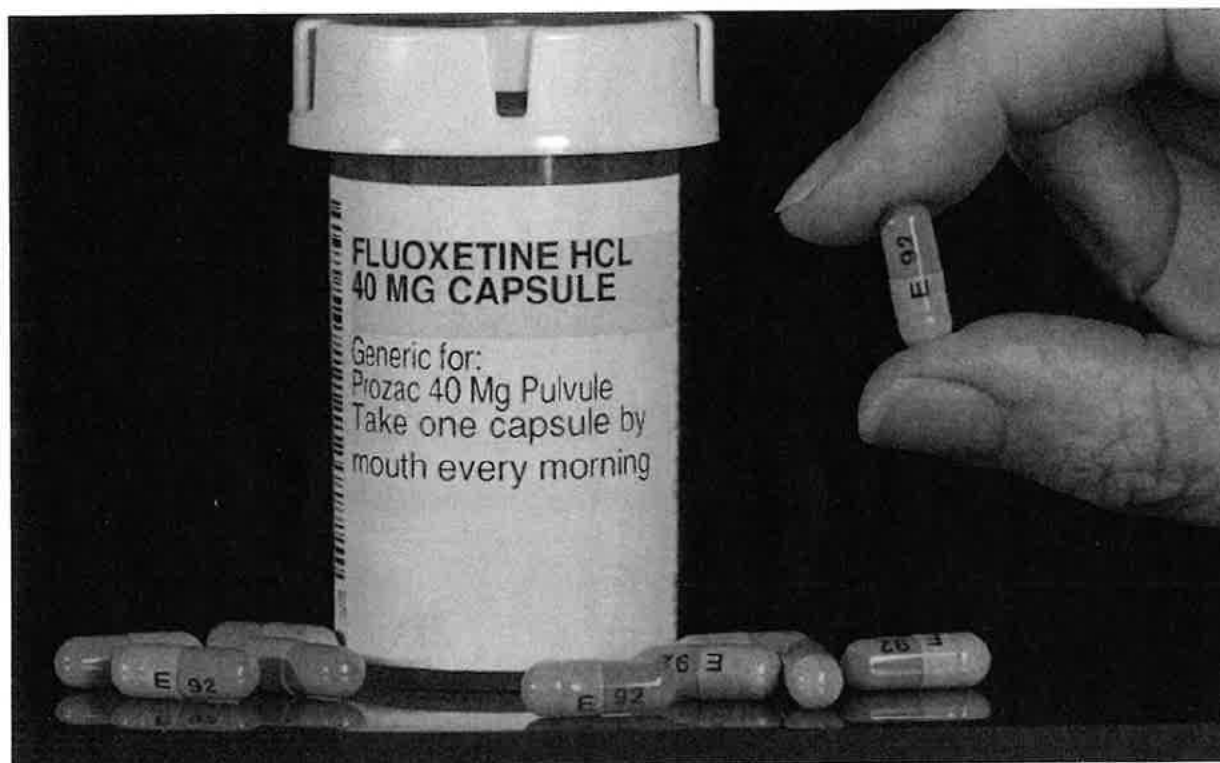
3 Reasons To Reconsider Drugs That Contain Fluoride

We know fluoride is **toxic** to the human body (brain, heart and bones) and is **non-essential** to human life.^{3,4}

That means, if you're exposed to it, you'll experience very little benefit with a considerable risk of harm.

Now we're told that many modern pharmaceuticals (e.g. Prozac, Lexapro) contain "organofluorines" (a chemical compound that contains both carbon and fluorine).

And that this compound won't contribute to our total fluoride exposure since the strong bond between fluorine and carbon will resist metabolizing into fluoride ions.



But the truth is, there are some organofluorine drugs that do metabolize into fluoride.

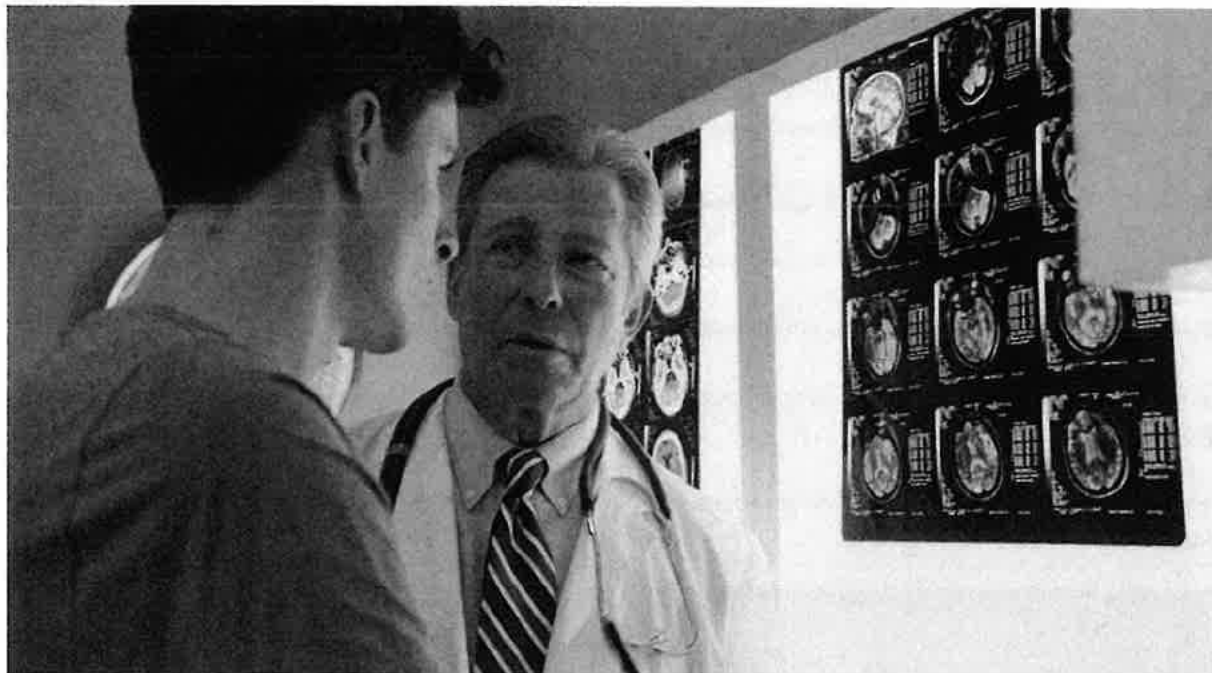
This is proven through studies that have documented elevated fluoride levels in the urine or blood after the use of these drugs:

- Cipro⁵
- Niflumic acid⁶
- Flecainide⁷
- Fluorinated anesthetics⁸
- Voriconazole⁹

Now considering these drugs contain high amounts of fluorine. When metabolized into fluoride, it's possible it will be a significant source of daily exposure.

And if this is the case for other drugs too, this leaves many people with a hard choice or a difficult situation to accept. Especially if you consider the following 3 facts...

1. Fluoride Is Classified A Neurotoxin



As discussed in what does fluoride do to the brain, fluoride has the same brain damaging effects like lead, mercury, arsenic, PCBs, and toluene.¹⁰

On top of acting as a developmental neurotoxin that is capable of causing brain disorders like autism and ADHD, it has also been shown to reduce intelligence, impair your ability to learn and remember, and increase your chances of Alzheimer's.^{11,12,13,14}

A total **nightmare** for your brain.

Now, here's a question for you...

Does it make sense to include a brain damaging substance in order to treat conditions like anxiety, depression, or any other brain-based problem?

2. Fluoride Wrecks Havoc On Bone and Joint Health



Fluoride is not bone and joint friendly.

As long term consumption of fluoride leads to a condition called skeletal fluorosis. A condition that has **no treatment** and is often misdiagnosed for arthritis. Which is then treated by fluoride containing drugs.

Bringing us to our next question...

Could fluoride, a substance proven to weaken bones and cause pain to joints be responsible, or at least worsen a person's arthritis?

3. Side Effects Caused By Fluoride Medication

Putting aside serious health effects, your body may not be reacting well with ingested fluoride.

These side effects are commonly seen with people who have fluoride allergies. But those taking fluoride containing medication can also experience these symptoms.

The most common symptoms are skin irritation, upset stomach, and headaches. But there are a few others you should be aware of like:

- Hives, acne, or skin rashes
- Weakness
- Difficulty breathing
- Swelling (face, lips, tongue or throat)

Side Effects Of Fluoride Drugs



Swelling- face, lips, tongue or throat



Difficulty breathing



Nausea and vomiting



Upset stomach



Hives or rash



Weakness



Change in teeth-staining or pitting



Headache

Tips On Using The Fluoride Drug Table

Before you get the opportunity to search the 325+ drugs that contain fluoride, here are a few tips to help you use the fluoride drug table...

1) Use the search bar to look up a specific drug.

Enter the name you see on the bottle and check to see if anything pops up in the table.

If it shows up, it contains fluoride.

2) Filter by category to narrow down the number of drugs...

Examples can be fluoride in antidepressants, arthritis, or antibiotics.

Drugs That Contain Fluoride Table (Search 325+ Drugs)

Millions of people a day take prescription drugs and many of them don't know their medication may contain fluoride.

So before I forget, when you're done reading, consider sharing what you've discovered today with your friends and family using the blue sharing buttons found at the beginning or end of the article. You'll help expose the truth about fluoride and might just change someone's life.

Now here's the table with the 325+ drugs that contain fluoride...

All

Search

Generic Name	Common Name	Category
Desflurane	Suprane	Anesthetics
Droperidol	Inapsine DHBP, Dehidrobenzperidol, Dehydrobenzperidol, Deidrobenzperidolo, Dihidrobenzperidol, Dridol, Droleptan, Halkan, Inappin, Inapsin, Inapsine, Innovan, Innovar, Innovar-Vet, Inopsin, Inoval, Leptanal, Leptofen, McN-JR 4749, Properidol, Sintodril, Sintosian, Thalamanol, Thalamonal, Vetkalm.	Anesthetics
Enflurane	Ethrane	Anesthetics
Flumazenil	Anexate, Flumazenil, Flumazenilo, Flumazenilum, Flumazepil, Lanexat, Mazicon, Romazicon	Anesthetics
Halophane		Anesthetics
Isoflurane	Forane	Anesthetics
Methoxyflurane		Anesthetics
Midazolam	Dea No. 2884, Dormicum, Midazolam Base, Midazolam Hcl, Midazolamum, Versed	Anesthetics
Sevoflurane	Ultane	Anesthetics
Fluconazole	Diflucan	Anti-fungal antibiotics

« < ... 1 2 3 4 5 ... > »

3 Ways To Protect Yourself From Fluoride Containing Drugs

No matter who you are, you can't go wrong following these steps. But if you're taking a drug that contains fluoride, this is even more important for you to read and do.

You may not be able to stop taking your medication or find a fluoride-free alternative. But by following these steps you'll greatly reduce the risk of **fluoride toxicity**.

NOTE: Truth About Fluoride is reader-supported. When you buy through links on the site, I may earn a commission (every product is bought, tested & used by myself. With only the best being recommended)

1) Eliminate The Main Sources Of Fluoride

This is as easy as replacing what is currently filled with fluoride with a fluoride-free alternative.

For example, fluoride in toothpaste and fluoride in tea are extremely potent sources. Toothpaste can contain up to or greater than 1500 ppm of fluoride. While certain green and black teas can contain anywhere from 2, 3 or even 5X the amount of fluoride found in tap water.

But to solve this problem all you'd have to do is switch your current toothpaste and tea with a fluoride-free option.

And to make this process as easy as possible, I suggest you take a look at my free fluoride detox guide. That's where I show you exactly how to do it and help you eliminate a few other easy sources of fluoride (cookware, coffee, etc.).

2) Avoid Drinking Fluoride Filled Water

The largest and most consistent source of fluoride most people come across in their lives, is the fluoride found in water, specifically tap water.

And thankfully, this is also easy to fix.

You can either drink bottled water without fluoride (link to where you can search the fluoride content of 187+ brands of bottled water) or you can use a fluoride water filter. Now both options are great, I bounce around from using one or the other.

But there are a few things you have to watch out for...

For example, with bottled water, fluoride is not the only thing you should worry about. As many brands may be low in fluoride but high in toxins like microplastics, PFAS, arsenic, or even have high radioactivity levels.

While water filters will definitely help you save money and provide more convenience than bottled water. The only problem is that many water filters LIE about being able to remove fluoride. So to help you out, I'll send you the fluoride test results of 33+ water filters. This way you know which ones are worth getting.

Enter your email below to receive fluoride test results on 41+ water filters + my top picks!

While for those wondering, the cheapest and quickest way to get started is to get a water filter pitcher, with the best brand being Clearly Filtered (link to their website). But don't forget about amazing options like reverse osmosis or distillers. Which are probably the most reliable way of removing fluoride.

Or you can go with any of the other choices explained in the PDF and email just sent to you (if you signed up above).

But the main point is that tap water should be avoided at all costs.

3) Be Aware Of Common Sources Of Fluoride

Besides very potent sources of fluoride like water, tea and toothpaste, there are common sources of fluoride that could sneak up on you.

For example, certain foods, beverages and bottled water contain high levels of fluoride.

So to help you better understand how much fluoride you consume on a daily basis, here are a few other resources at your disposal.

- Foods That Contain Fluoride (Search 503+ Foods)
- Bottled Water Without Fluoride (Search 178+ Brands)
- Fluoride in Kombucha (32+ Bottles Tested)
- Fluoride In Cookware (List of Fluoride-Free Cookware)

Concluding Thoughts

To play devil's advocate, I understand why fluoride is included in many drugs.

As stated, fluoride is said to help make the drug more effective and easier to administer. And its stubborn nature makes it easier to deliver a drug to the part of the body it's needed.

However, elevated urine and blood fluoride levels have been observed in individuals after taking fluoride containing drugs. Possibly acting as a large source of daily exposure and leading to a host of negative health effects.

This means at the very least, if you are taking a drug that contains fluoride, minimize **ALL** other sources of fluoride. This will provide you with some breathing room.

However, if possible, consult your doctor and explore suitable fluoride-free alternatives.

Anyways, that's all for our talk on drugs that contain fluoride.

Cheers!

Frequently Asked Question? (FAQ's)

Does Prozac Have Fluoride?

Yes, fluoride is one of five ingredients that make up Prozac.

Does Zoloft Contain Fluoride?

No, Zoloft does not contain fluoride. Instead of fluorine, it contains chlorine.

Does Lexapro contain fluoride?

Yes, Lexapro is one of the many antidepressants that contain fluoride.

Antidepressants without fluoride?

With how tricky medication is, it's best if you consult your doctor about an appropriate choice for antidepressants without fluoride. Just because something is fluoride-free doesn't mean it'll be good for you or even better.

► **References**

Casey J Krol

The guy exposing the truth about fluoride, one great article at a time. Now if you'd like to support what I do, click the "donate" button below. While for any questions, use the other buttons to get in touch with me (IG or Twitter). Better yet, sign up with your email on the website and get access to my personal email.



Home » Sources of Fluoride » **Prescription Drugs**

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Follow us on social media for the most up to date fluoride news, advice and content.



#1 Resource For Reliable and Useful Fluoride Information

Providing you the tools and information you need to avoid a classified neurotoxin with ease.

- ✓ **Evidence Based:** information is based on scientific literature.
- ✓ **Independently Tested:** tests are independently tested (water filters, teas, bottled water, etc.) to ensure unbiased results.
- ✓ **Self Funded:** the website is solely funded by the owner + donations made by readers. Keeping the information pure and objective.

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plots for blood-lead levels overlaid with plots of violent crime rates that were shifted back about 23 years (*Environ. Res.* 2007, DOI: 10.1016/j.envres.2007.02.008).

"When people read about my work," Nevin says, "they oftentimes blurt out, 'Correlation does not mean causation.'" One of the key signs of causation, he argues, is biological plausibility.

Research has shown that lead exposure does indeed make lab animals—rodents, monkeys, **even cats**—more prone to aggression. But establishing biological plausibility for the lead-crime argument hasn't been as clear-cut for molecular-level studies of the brain. Lead wreaks a lot of havoc on the central nervous system. So pinpointing one—or even a few—molecular switches by which the heavy metal turns on aggression has been challenging.

What scientists do know is that element 82 does most of its damage to the brain by mimicking calcium. Inside the brain, calcium runs the show: It triggers nerve firing by helping to release neurotransmitters, and it activates proteins important for brain development, memory formation, and learning. By pushing calcium out of these roles, lead can muck up brain cell communication and growth.

On the cell communication side of things, lead appears to interfere with a bunch of the neurotransmitters and neurotransmitter receptors in our brains. One of the systems that keeps popping up in exposure experiments is the dopamine system. It controls reward and impulse behavior, a big factor in aggression. Another is the glutamate system, responsible in part for learning and memory.

On the brain development side of things, lead interferes with, among other things, the process of synaptic pruning. Nerve cells grow and connect, sometimes forming 40,000 new junctions per second, until a baby reaches about two years of age. After that, the brain begins to prune back the myriad connections, called synapses, to make them more efficient. Lead disrupts this cleanup effort, leaving behind excess, poorly functioning nerve cells.

"If you have a brain that's miswired, especially in areas involved in what psychologists call the executive functions—judgment, impulse control, anticipation of consequences—of course you might display aggressive behavior," says Kim N. Dietrich, director of epidemiology and biostatistics at the University of Cincinnati College of Medicine.

Dietrich and his colleagues have been studying lead's effects on the developing brain for more than 30 years. In the late 1970s, he and a group of other investigators recruited some 300 pregnant women for what would become the Cincinnati Lead Study. At the time, these women lived in parts of Cincinnati—typically the inner city—that had experienced historically high numbers of lead-poisoning cases. Once the recruits' babies were born, Dietrich and his group began monitoring the newborns too.

From the time they were born until they were six-and-a-half years old, the young participants had their blood-lead levels measured 23 times. The average childhood concentration for the whole group was 13 µg/dL. Now adults in their 30s, the subjects are having their brains scanned and behaviors analyzed.

And the results are eerie. As of 2008, 250 members of the lead study had been arrested a total of 800 times. The participants' average blood-lead levels during childhood also correlated with their arrest rate, Dietrich's team found (*PLoS Med.* 2008, DOI: 10.1371/journal.pmed.0050101).

Working with Dietrich, Kim M. Cecil, an imaging expert at Cincinnati Children's Hospital Medical Center, has taken magnetic resonance images of the subjects' brains and found that as childhood blood-lead levels increase, gray matter volume decreases in a handful of brain areas (*PLoS Med.* 2008, DOI: 10.1371/journal.pmed.0050112). Even more important, the regions with the largest gray matter loss are the ventrolateral prefrontal cortex and the anterior cingulate cortex, areas known for impulse control, emotional regulation, and decision making.

"These are the parts of the brain that say, 'Ooh, I've learned from before that I shouldn't steal that, or if I do this, then the consequences are that,'" Cecil says.

Still another way lead might coax the brain into committing violent acts is through IQ and learning disabilities. Although controversial when they were first reported, studies have shown that a child's blood-lead level is inversely proportional to IQ. The extent of this relationship is still a point of contention, but most estimates have suggested that for every 10 µg/dL of blood lead, a child loses between one and 10 IQ points.

This might not seem like a lot for someone who's been genetically gifted with an IQ around 120 or 110. Cecil contends. But for a child who might have started life with an IQ of 80, dropping to 70—a value close to impairment—is a handicap, she says.

Children who perform poorly in school and who have learning disabilities tend to have low self-esteem, get frustrated more easily, and, thus, are more likely to act out and engage in delinquent behavior, experts say.

On the molecular level, lead might be affecting learning and intellect through the N-methyl-D-aspartate receptor (NMDAR), a protein on the surface of nerve cells that gets activated when glutamate and glycine stick to it. For more than 20 years, Tomás R. Guilarte, chairman of environmental sciences at Columbia University, has been studying how NMDAR works and how it's affected by lead.

"Lead's a potent inhibitor of NMDAR," Guilarte says. That's a problem, he says, because "NMDAR is crucial for brain development, learning, and memory processes."



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Natural Resources Defense Council Staff Blog

Steve Fleischli's Blog

House Committee Launches Most Significant Attack on the Clean Water Act in at Least 15 Years



Posted June 21, 2011 in Curbing Pollution, U.S. Law and Policy

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Not satisfied with merely trying to undo the Clean Air Act, the House of Representatives has now decided to attack the federal Clean Water Act with the introduction of H.R. 2018, which is slated for mark-up tomorrow (Wednesday) in the House Transportation and Infrastructure Committee. The bill, sponsored by Congressman John Mica of Florida, strips EPA of critical oversight authority that for decades has resulted in improved water quality across the country. And it's not just Republicans leading the charge. Several Democrats, including Representatives Nick Rahall (WV), Jason Altmire (PA) and Tim Holden (PA), have co-sponsored the legislation.

The bill seems to be a reaction to EPA's recent important efforts to protect water quality in Florida, West Virginia, and on the Chesapeake Bay. But its impact is far broader than that.

Also called the "Clean Water Cooperative Federalism Act of 2011," H.R. 2018 takes "cooperation" to a whole new level by stripping EPA of its ability to protect national water quality without state-by-state approval. Among other things, the bill:

- Limits EPA's ability to effectively implement or make necessary improvements to state water quality standards to deal with modern pollution challenges.
- Prevents EPA from improving numeric criteria for pollutants that have led to dead zones in the Chesapeake Bay and Gulf of Mexico.
- Restricts EPA from upgrading standards for toxic pollutants where narrative standards only provide very limited protection (a common example being state standards that prohibit the "discharge of toxic pollutants in toxic amounts").
- Prevents EPA from vetoing state-issued Clean Water Act permits even if EPA concludes those permits are not protective of water quality.
- Blocks EPA's ability to withhold federal funding to states *even if* EPA determines the state's implementation of water quality standards is not protective of water quality.

Basically, H.R. 2018 takes the "federal" out of the federal Clean Water Act and highlights a new disdain for the federal government's role in environmental protection. Yet it is this federal law and EPA's oversight that have resulted in so many improvements to water quality across America since the Clean Water Act's passage in 1972.

The federal Clean Water Act provides a safety net for waterways across the country, where states must implement minimum provisions to protect water quality. States can always do more if they so choose, but the law recognizes that Americans deserve a minimum standard of protection no matter where they live, and the Clean Water Act is designed to prevent a "race to the bottom" in places where the benefits of clean water may be ignored for short term economic or political gain.

By hamstringing EPA, H.R. 2018 would remove the most critical piece of the puzzle and would take away this safety net.

Indeed, sponsors of the bill seem intent on taking us back to the "good old days" of limited federal involvement when rivers like the Cuyahoga caught fire and Lake Erie was declared dead – and when states sued other states because pollution flowing from an upstream state ruined a neighboring state's waterway. Yet these past horrors and the legislative history of the Clean Water Act reveal why the federal role was and remains so important: before 1972 many states lacked any approved water quality standards and national efforts to abate and control water pollution were "inadequate in every vital aspect."

I say this is the worse attack on the Clean Water Act in *at least* 15 years because it is hard to compare which is worse, the Dirty Water Bill of 1995 or today's H.R. 2018. Both contained provisions to paralyze EPA's Clean Water Act duties – the Dirty Water Act under the guise of cost-benefit analysis, H.R. 2018 under the guise of state's rights. But one thing that is easy to see is that H.R. 2018 will undermine almost 40 years of progress in cleaning up America's waterways, and it will remove America's most vital safety net for protecting water quality

BIOSLUDGE is a toilet-to-farm scheme that deposits toxic sewage sludge on food crops all across America

Friday, December 21, 2018 by: [Lance D Johnson](#)

Tags: [badfood](#), [badhealth](#), [badpollution](#), [badscience](#), [bio-terrorism](#), [Biosolids](#), [cancer causes](#), [Clean Soil Act](#), [deception](#), [EPA](#), [EPA fraud](#), [food supply](#), [fraud](#), [human waste](#), [outbreaks](#), [pharmaceutical runoff](#), [soil health](#), [soil poisoning](#), [toxic chemicals](#), [wastewater treatment](#)

([Natural News](#)) There's a reason why the Environmental Protection Agency (EPA) has implemented a Clean Water Act and a Clean Air Act, but NO Clean Soil Act.

A Clean Soil Act would fundamentally change how wastewater is processed and recycled. It would require the EPA come clean about the toxic composition of fertilizers being spread on North American soils. A Clean Soil Act would halt the mass spread of toxic sewage on food crops all across America. It would expose environmental crimes within the EPA itself. A Clean Soil Act would require the truth to come out; that the recycling of bio-solids is a toilet-to-farm scheme that is poisoning America's gardens and farmlands and forcing humans to eat from their own waste.

The bio-solids that are processed and recycled at municipal wastewater treatment plants are sold to homes and farms across the country as "fertilizers." These bio-solids are a chemical nightmare, consisting of a wide array of pharmaceuticals, agro-chemicals, industrial chemicals, household chemicals, pathogenic material, and heavy metals. This toxic biosludge should never come in contact with soils that grow food for human and animal consumption. (Related: [The government is lying about the safety of biosludge.](#))

Documentary exposes deep truths about EPA fraud and the chemical poisoning of soils and the food supply

In the new documentary [Biosludged](#), scientific experts and whistle blowers break down what is happening to North American soils and how this mass pollution scheme is making people chronically ill and mentally lobotomized. In this documentary, former EPA scientist and whistle blower Dr. David Lewis reveals the shocking extent of the EPA's criminal activities and scientific fraud. The fertilizer that people add to their soils is inundating crops with disease-promoting pathogens and a slew of chemicals that wreck havoc on the physiological processes of the human body.

The documentary also warns that the food supply is at grave risk of being used as a vector for terrorist activity. A terrorist can flush massive amounts of chemicals into the sewage system,

only to have it all recycled as fertilizer for use on crop fields. Sewage sludge could also be laced with bio-weapons and microorganisms that cause food poisoning and infectious disease. All the human dung that is deposited on food crops ultimately releases chemicals into the groundwater, too. People across the U.S. are literally regurgitating the toxic composition of their own poop, using water and fertilizer that has been poisoned over and over again. These biosludge chemicals directly affect brain function, immune function, and fertility. All the cancer marches and pink ribbon fundraisers should start to look at what's going on with the food supply, how toxic human waste is re-consumed, poisoning the population into cancerous states.

Watch the full documentary at BrighteonFilms.com and download the full movie files that you can openly share with others. Stay up-to-date on the "greatest environmental crime you've never heard" at Biosludge.News.



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Coronavirus ‘Perfect Storm’ Now Exists Thanks to Biosludge, Open Borders, Filthy Liberal Cities

Friday, January 24, 2020 by: [Mike Adams](#)

Tags: [Biosludge](#), [coronavirus](#), [infections](#), [liberal cities](#), [Open Borders](#), [outbreak](#), [pandemic](#), [perfect storm](#)

Bypass censorship by sharing this link:

(Natural News) The horrendously bad decisions of human beings who hold power in government, media and industry have brought the human race to a “perfect storm” of conditions that will strongly contribute to the spread and fatalities of the coronavirus pandemic now threatening the world.

As I relate in an emergency podcast below, the following conditions are now converging into a *worst case scenario* when trying to stop a pandemic (or a *best case scenario* for the globalists trying to achieve depopulation):

#1) Open borders policies that allow infected people to walk right across the border into the United States, with no health screening whatsoever.

#2) Sanctuary city policies that protect infected illegals from being discovered or deported.

#3) The widespread practice of **biosludge distribution onto food crops**. “[Biosludge](#)” is the raw human sewage sludge that’s collected by every city in America, slightly dried to reduce water mass, then loaded onto trucks and dumped on nearby farm fields. It’s sold to farmers as “free fertilizer” because it’s rich in nitrogen. It also means that any coronavirus which makes its way into the sewage system will be distributed by U.S. cities onto farm fields, obviously contaminating food crops and multiplying the effects of the pandemic. (See the full documentary at [Biosludged.com](#) to learn about biosludge.)

#4) The now-legal practice in Washington State of liquefying dead human bodies and flushing them into the municipal sewage system, where they become *biosludge* to be spread on crops. This practice was just recently legalized in Washington, and it means the dead will be used to fertilize the food crops that are fed to the living. When people start dying from coronavirus, will they also be flushed into the sewage systems?

#5) The practice — now common in filthy liberal cities — of allowing people to openly defecate in the streets, with no repercussions or arrests. Since viruses often infect human feces and other body excretions, this likely means that coronavirus will be found in the raw human feces that

gets washed into storm drains during rain storms. The storm drains in San Francisco, Seattle and other coastal cities **empty directly into the ocean**, where viruses are then washed onto the beaches of North America, infecting beach goers and mixing with aquatic ecosystems to produce even more potentially dangerous variants of infectious disease.

#6) The continued attacks on natural medicine and the censorship of sources like Natural News that can teach people how to avoid or overcome infections *even when pharmaceutical medicines fail* (or are completely out of supply).

#7) The **compromised human immune system due to widespread vaccination practices** that actually weaken, not strengthen, the veracity of the human immune response. People who routinely receive vaccinations such as flu shots are discovered to be *more vulnerable* to future infections. Widespread immunization practices across North America, Europe, Australia and other countries have created a highly vulnerable population that can be easily infected with coronavirus.

These factors now converge to create a **perfect storm** for the coronavirus outbreak, which is actually a weaponized, engineered biological weapon being unleashed against humanity in order to achieve *depopulation*.

It will very likely succeed, since humanity has been begging for self-destruction through all the practices detailed above.

Most notably, the highest fatalities from any such pandemic will occur in cities; especially cities where the homeless are more populous and filthy, unsanitary conditions exist. In other words, **liberal cities**.

Listen to my urgent podcast for more details:

[Brighteon.com/0aaf4243-1dfe-47e9-9c56-32232a96cdfc](https://www.brighteon.com/0aaf4243-1dfe-47e9-9c56-32232a96cdfc)

Previous :BREAKING: Coronavirus a stealth strain that can be carried by people who show NO fever or coughing symptoms... detection almost impossible under current government guidelines
Next : VACCINE BOMBSHELL as U.N. health experts admit toxic vaccine ingredients are harming children worldwide – see v

Wastewater may hold COVID-19 clues

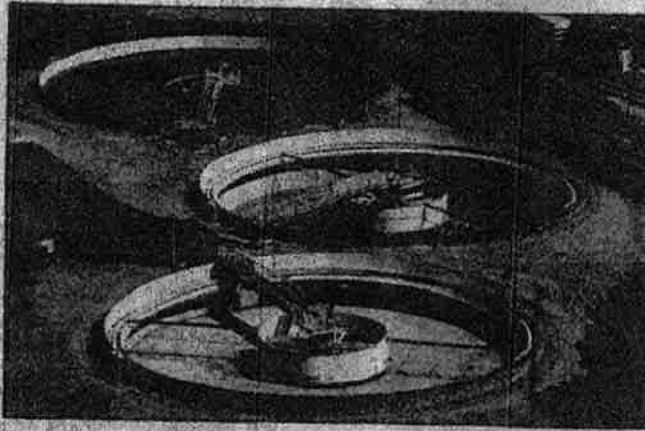
Vancouver part of pilot program that could supplement existing data on virus

By **CALLEY HAIR**
Columbian staff writer

The prevalence of COVID-19 in Vancouver is now being tracked through a pilot program in which samples of wastewater are collected and tested for signs of the novel coronavirus.

Staff at the Marine Park and Westside wastewater treatment facilities are collecting sewage samples weekly. The samples are then sent to a laboratory at Arizona State University, where researchers test the city's influent for fragments of the virus's genetic information.

The conclusions that can be drawn from this information have their limitations, according to a statement released by the city earlier this week. Wastewater-based epidemiology is still a relatively new science, and traces of the virus in the city's sewer systems provide only a big-picture



The Columbian files

The city of Vancouver Westside Wastewater Treatment Plant, seen in July, is one of two local wastewater treatment facilities collecting samples of wastewater to send for testing for signs of the coronavirus.

WASTEWATER, Page A2



COVID-19

in the Northwest

Number of confirmed cases and deaths as of Wednesday afternoon, with the change from the previous report:

	Cases	Deaths
Clark County	395	24
Change	2	0
Washington	17,512	975
Change	182	13
Oregon	3,416	134
Change	58	4

SOURCES: State and local health departments, National Institutes of Health photo

Wastewater

From Page A1

snapshot of the region.

But participation in the program could help the city determine the concentration of the virus in the community, including among people who are infected but do not present symptoms. The data will be used to supplement the metrics already tracked by Clark County Public Health.

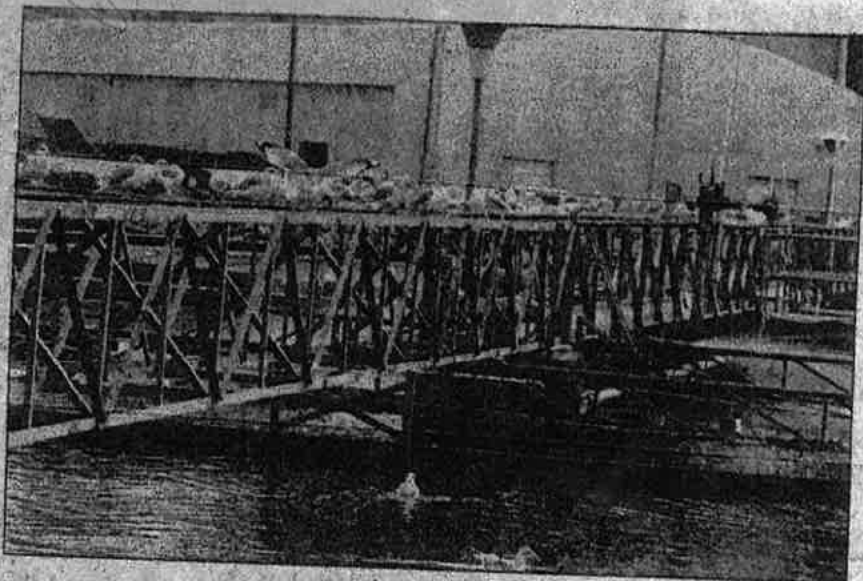
Vancouver is one of about a dozen cities across the country participating in the program through its wastewater facilities operator, Jacobs.

"It's very straightforward and simple," Frank Dick, the city's wastewater engineering supervisor, wrote in an email to The Columbian.

"Jacobs staff at city facilities, in the course of collecting daily influent samples, once a week will fill an additional half-liter sample container, label and seal it, and send it off to the ASU laboratory via qualified carriers," Dick wrote. "The sample is a community-wide representation."

According to an Arizona State University study published in Science of the Total Environment, wastewater-based epidemiology mines sewage samples for vital clues about human health. That applies to the coronavirus but also to other ailments that leave traces in human waste — drug use, diabetes and obesity, among others.

The Arizona State University lab uses a process called polymerase chain reaction testing in order to identify fragments of virus-associated RNA, the ribonucleic acid that carries the virus's genetic information.



The Columbian files

Seagulls congregate on a structure at the Westside Water Reclamation Facility, just off West Mill Plain Boulevard in Vancouver.

"Our results show that exclusive reliance on testing of individuals is too slow, cost-prohibitive and in most places, impractical, given our current testing capacity," Rolf Halden, one of two researchers who published the study, told Science Daily. "However, when preceded by population-wide screening of wastewater, the task becomes less daunting and more manageable."

In Vancouver, the pilot program will continue for at least a month, possibly longer, according to the city's media release. The gathered data will be shared with local public health officials.

Brent Bremmer, the director of product communications at Jacobs, said the company is still figuring out how and when that data will be re-

leased.

"The format and time frame for data sharing is not yet established as sample collection and data gathering has just begun at most sites involved in the study," Bremmer said.

Jacobs operates nearly 100 wastewater facilities across the country, including the two in Vancouver. The city is one of 11 municipalities participating in the pilot program, though more are expected to join in.

Vancouver's sewer service area encompasses all but a small north-central sliver of the city. It also includes a few portions of the county's regional wastewater district along the city's northern border.

Calley Hair: 360-735-4558; calley.hair@columbian.com. Twitter: @calleyhair

documentary
Stew Peters: Dr. Bryan Ardis
"Watch the Water"

SUNDAY, OCTOBER 31, 2004

EPA plan to study pesticides' effect on kids spurs backlash within agency

Poor families may join just to get the perks, staff fears

By Juliet Eilperin
WASHINGTON POST

WASHINGTON — An Environmental Protection Agency proposal to study young children's exposure to pesticides has sparked a flurry of internal agency protests, with several career officials questioning whether the survey will harm vulnerable infants and toddlers.

The EPA announced this month that it was beginning a two-year investigation, partially funded by the American Chemical Council, of how 60 children in Duval County, Fla., absorb pesticides and other household chemicals. The chemical industry funding initially prompted some environmentalists to ques-

tion whether the study would be biased, and some rank-and-file agency scientists are now questioning whether the plan will exploit financially strapped families.

In exchange for participating for two years in the Children's Environmental Exposure Research Study, which involves infants and children up to age 3, the EPA will give each family using pesticides in their home \$970, some children's clothing and a camcorder that parents can keep.

EPA officials in states such as Georgia and Colorado sent e-mail messages to each other last week suggesting the study lacked safeguards to ensure that low-income families would not be swayed into exposing their children to hazardous chemicals in exchange for money and high-tech gadgetry. Pesticide exposure has been linked to neurological problems, lung damage and birth

defects.

Suzanne Wuerthele, the EPA's regional toxicologist in Denver, wrote to her colleagues on Wednesday that after reviewing the project's design, she feared poor families would not understand the dangers associated with pesticide exposure.

"It is important that EPA behaves ethically, consistently, and in a way that engenders public health. Unless these issues are resolved, it is likely that all three goals will be compromised, and the agency's reputation will suffer," she wrote in an e-mail obtained by the Washington Post. "EPA researchers will not tell participants that using pesticides always entails some risk, and not using pesticides will reduce that risk to zero."

Troy Pierce, a life scientist in the EPA's Atlanta-based pesticides section, wrote in a separate e-mail: "This does sound like it goes against everything we rec-

ommend at EPA concerning use of (pesticides) related to children. Paying families in Florida to have their homes routinely treated with pesticides is very sad when we at EPA know that (pesticide management) should always be used to protect children."

Linda Sheldon, acting administrator for the human exposure and atmospheric sciences division of the EPA's Office of Research and Development, said the agency would educate families participating in the study and inform them if their children's urine showed risky levels of pesticides. She said it was crucial for the agency to study small children, because so little is known about how their bodies absorb harmful chemicals.

"We are developing the scientific building blocks that will allow us to protect children," Sheldon said, adding that the study design was reviewed by five in-

dependent panels of academics, officials of the Centers for Disease Control and Prevention, and representatives of the Duval County Health Department.

Families can remain in the study, even if they stop using pesticides, Sheldon said, as long as they were using them before the experiment started. It was unlikely that any family would volunteer for the study out of financial need, she added, because researchers will require parents to invest time in monitoring their children's activities and diet.

"Nobody can go into this study just for that amount of money," Sheldon said.

R. Alta Charo, a professor of bioethics at the University of Wisconsin at Madison's law and medical schools who co-wrote a National Academy of Sciences report last year on the use of pesticides for research, said EPA officials were struggling with how to balance the need to protect the

individual child's interests against the goal of pursuing a broader scientific agenda. While she said the agency's approach was reasonable, Charo said it does raise ethical questions.

"Where is the line between enticement and a godfather offer" that impoverished families would find hard to refuse? Charo said. "That is really troubling. We make these decisions over and over in public policy. This is one of those moments."

Several EPA officials, all of whom asked not to be identified for fear of retaliation, also questioned why the agency removed the study design and its recruitment flyer from the EPA's Web site once some scientists started to complain about the project. Sheldon said the agency is rewriting how it portrays the research.

"We removed it so we could modify it, so it would make more sense," she said.