185612

Moore-Love, Karla

From: Carolyn Alter [mail@change.org]
Sent: Friday, August 31, 2012 6:12 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I don't believe in drinking fertilizer byproducts which include toxic metals. Keep our water pure.

Carolyn Alter
Portland, Oregon

185612

Moore-Love, Karla

From: Rick North [mail@change.org]
Sent: Friday, August 31, 2012 3:53 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

City Council members have all received my personal letter.

Rick North
Durham, Oregon

Moore-Love, Karla

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Friday, August 31, 2012 3:48 PM
To: Moore-Love, Karla
Subject: Water Fluoridation document

Karla,

Could you please place this documentation into public record regarding water fluoridation and distribute to the city council members. Thank you.

The following is written by Peter F. Vallone, Jr., New York City council member on water fluoridation:

Vallone Op-Ed: Fluoride – If In Doubt, Keep It Out

Did you know that the government is putting toxic chemicals in our water which come from the scrubbing systems of the fertilizer industry and are classified as "hazardous wastes" (sodium fluorosilicate and fluorosilicic acid). Are you concerned? You should be. Unfortunately, when these chemicals are called "fluoride," safety concerns go down the drain.

There is a growing body of evidence that fluoride does more harm than good. One need only do a modicum of research to find the many anti-fluoride websites and studies. One of the most useful is "50 Reasons to Oppose Fluoridation," by Dr. Paul Connett (www.slwebb.org), where the sources for much of the medical information I used can be found. Most recently, a study published by the National Institute of Environmental Health (Dec. 17th) linked fluoride in water, at lower levels than what the EPA considers "safe," to lower IQ in children. While 4 out of 5 dentists may be enough to pick a gum, ALL should agree before we force-medicate the public (a practice which many, including myself, would oppose under almost any circumstance).

Fluoride is a toxic substance which accumulates in our bones and tissues throughout our lives. Only 50% of it is excreted. While all poisons have "safe" levels, common sense dictates it is impossible to monitor fluoride intake in individuals when it is in almost everything we eat and drink, and the amount of water and food people ingest varies widely. A 2008 report prepared for Congress by the Congressional Research Service concluded the allowable amounts of fluoride should be lowered in order to prevent children from developing severe enamel fluorosis and reduce the lifetime accumulation of fluoride in bone which "is likely to put individuals at greater risk of bone fracture and possibly skeletal fluorosis." This finding has been ignored.

Proponents of fluoride admit it is deadly at certain levels (one teaspoonful can kill an adult), but maintain that its effectiveness at fighting tooth decay offsets any potential harm. However, studies prove that tooth decay has decreased in areas without water fluoridation at the same levels as areas that fluoridate. Additionally, in areas and countries that have discontinued fluoridation, dental decay has actually decreased. The main reason for this is, as the Center for Disease Control has now acknowledged, any benefits from fluoride are topical. Fluoride toothpastes are effective and are not meant to be swallowed (because of the fluoride).

Since I recently introduced my legislation to ban fluoridation, the NY Daily News wants to put a "tinfoil hat" on me, while the American Council on Science and Health (ACSH) had called me "hysterical," "bizarre and unscientific," and stated that "the evidence of diminished IQ may best be observed among certain city Council Members." When so-called doctors resort to personal insults, you know they are worried. In fact, one must look at the source of some of this opposition. The ACSH, along with many of the leading pro-fluoride voices, is an industry funded group. Government, and the

industries involved, cannot now admit they were wrong, because of the huge potential liability, so they will attack anyone who raises this issue, as they have done to many before me. While the motives of those who started this program were good, the motives of those who now defend it must be questioned.

So before the Daily News fits me for my tinfoil hat, they should probably pick up a few extra rolls of foil for the many doctors, scientists, Nobel Prize winners and countries who support my position (or rather, whose position I support). France has rejected fluoride for "ethical as well as medical considerations," Austria and Denmark have stated, "toxic fluorides have never been added to our water," while Belgium echoed most of Western Europe when it stated, "it is not the task of drinking water to deliver medicinal treatment to the people." Even the union representing the scientists at EPA headquarters has said, "The toxicity of fluoride is so great and the purported benefits...are so small – if there are any at all – that requiring every man, woman and children in America to ingest it borders on criminal behavior..."

It's time for an intelligent discussion to be had on this controversial practice. I believe after that occurs, most people will support NYC using the "Precautionary Principle," which says, if in doubt, leave it out.

185612

Moore-Love, Karla

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Friday, August 31, 2012 3:29 PM
To: Moore-Love, Karla
Subject: Water Fluoridation
Attachments: fluorosilicates.pdf

Another message that I would like place into public record regarding water fluoridation (I sent this directly to the city council members on August 20). Thank you.

Attached is a review on the toxicology of the two main chemical ingredients used in fluoridation, sodium hexafluorosilicate and fluorosilicic acid, prepared by Scott Masten, Ph.D. National Institute of Environmental Health Sciences. I have attached a pdf of the complete document, below are a few exerpts. When these chemicals have been called "poison", they are indeed poison.

Sodium hexafluorosilicate and fluorosilicic acid were nominated for toxicological testing based on their widespread use in water fluoridation and concerns that if they are not completely dissociated to silica and fluoride in water that persons drinking fluoridated water may be exposed to compounds that have not been thoroughly tested for toxicity.

The EPA refers to these chemicals as "contaminents". They are used in the commercial laundry business, in enamels for china and porcelain....metallurgy, glue, ore flotation, leather and wood preservatives, insecticides, rodenticides, during the manufacture of pure silicon, as a gelling agent of molded latex foam. Apparently, all pesticidal products had their registrations cancelled or they were discontinued by the early 1990s.

Its affect on humans: Cases of sodium hexafluorosilicate ingestion reported symptoms such as acute respiratory failure, ventricular The effects of long-term exposure to fluorosilicic acid are changes in bone, corrosivity of the mucous membranes (e.g., ulceration of the nose, throat, and bronchial tubes), coughing, shock, pulmonary edema, fluorosis, coma, and even death. In workers engaged for approximately 30 years in the production of phosphate fertilizers, nine out of the 50 observed workers had increased bone densities. When swallowed, severe irritation of the lungs, nose, and throat can occur, as well as severe damage to the throat and stomach. tachycardia and fibrillation, hypocalcemia, facial numbness, diarrhea, tachycardia, enlarged liver, and cramps of the palms, feet, and legs.

In animals: Sodium hexafluorosilicate poisoning has been reported in domestic animals (cattle, sheep, a horse, and a pigeon). Animals exhibited drowsiness, constipation, loss of appetite, paresis of the rumen, severe abdominal pain, and diarrhea. Sheep also exhibited grinding of the teeth (an indication of pain) and frothing at the mouth in most cases of lethal poisoning, while the horse also had

bradycardia. In a study in which sheep were orally administered technical sodium hexafluorosilicate (25, 50, 200, 1500, and 2000 mg/kg; 0.13, 0.27, 1.06, 7.976, and 10.63 mmol/kg) via stomach tube, the animals exhibited similar symptoms. Animals died 6 days after administration of 200 mg/kg and 2.5 hours after administration of 2000 mg/kg. When a dairy herd of 600 animals was acutely poisoned from railcar contamination of feed, 95% of the animals had decreased neuromuscular transmission. The poisoning resembled calcium depletion.

When heated to decomposition, sodium hexafluorosilicate releases toxic fumes of hydrogen fluoride and sodium oxide, while contact with metals releases hydrogen gas. In water, the compound readily dissociates to sodium ions and hexafluorosilicate ions and then to hydrogen gas, fluoride ions, and hydrated silica. At the pH of drinking water (6.5-8.5) and at the concentration usually used for fluoridation (1 mg fluoride/L), the degree of hydrolysis is essentially 100%. Fluorosilicic acid is a moderately strong acid that can corrode glass and stoneware. Like its salt, its degree of hydrolysis is essentially 100% in drinking water, and when reacted with steam or water or when heated to decomposition or highly acidified, toxic and corrosive fumes of fluorides (e.g., hydrogen fluoride and silicon tetrafluoride) are released. It also reacts with metals, producing hydrogen gas.

The major use of sodium hexafluorosilicate and fluorosilicic acid is as fluoridation agents for drinking water. Sodium hexafluorosilicate has also been used for caries control as part of a silicophosphate cement, an acidic gel in combination with monocalcium phosphate monohydrate, and a two-solution fluoride mouth rinse. Both chemicals are also used as a chemical intermediate (raw material) for aluminum trifluoride, cryolite (Na_3AlF_6), silicon tetrafluoride, and other fluorosilicates and have found applications in commercial laundry.

Other applications for sodium hexafluorosilicate include its use in enamels/enamel frits for china and porcelain, in opalescent glass, metallurgy (aluminum and beryllium), glue, ore flotation, leather and wood preservatives, and in insecticides and rodenticides. It has been used in the manufacture of pure silicon, as a gelling agent in the production of molded latex foam, and as a fluorinating agent in organic synthesis to convert organodichlorophosphorus compounds to the corresponding organodifluorophosphorus compound. In veterinary practice, external application of sodium hexafluorosilicate combats lice and mosquitoes on cattle, sheep, swine, and poultry, and oral administration combats roundworms and possibly whipworms in swine and prevents dental caries in rats. Apparently, all pesticidal products had their registrations cancelled or they were discontinued by the early 1990s.

Sodium Hexafluorosilicate [CASRN 16893-85-9]

and

Fluorosilicic Acid [CASRN 16961-83-4]

Review of Toxicological Literature

October 2001

Sodium Hexafluorosilicate [CASRN 16893-85-9]

and

Fluorosilicic Acid [CASRN 16961-83-4]

Review of Toxicological Literature

Prepared for

Scott Masten, Ph.D.
National Institute of Environmental Health Sciences
P.O. Box 12233
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Contract No. N01-ES-65402

Submitted by

Karen E. Haneke, M.S. (Principal Investigator)
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Integrated Laboratory Systems
P.O. Box 13501
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October 2001

Executive Summary

Nomination

Sodium hexafluorosilicate and fluorosilicic acid were nominated for toxicological testing based on their widespread use in water fluoridation and concerns that if they are not completely dissociated to silica and fluoride in water that persons drinking fluoridated water may be exposed to compounds that have not been thoroughly tested for toxicity.

Nontoxicological Data

Analysis and Physical-Chemical Properties

Analytical methods for sodium hexafluorosilicate include the lead chlorofluoride method (for total fluorine) and an ion-specific electrode procedure. The percentage of fluorosilicic acid content for water supply service application can be determined by the specific-gravity method and the hydrogen titration method. The American Water Works Association (AWWA) has specified that fluorosilicic acid contain 20 to 30% active ingredient, a maximum of 1% hydrofluoric acid, a maximum of 200 mg/kg heavy metals (as lead), and no amounts of soluble mineral or organic substance capable of causing health effects. Recently, single-column ion chromatography with conductometric detection and sodium hydroxide-methanol-water eluent was used for the simultaneous determination of fluorosilicic acid, Ca^{2+}, Mg^{2+}, Al^{3+}, Cl^-, and NO_3^- and successfully applied to the analysis of mineral water and composite tablets.

When heated to decomposition, sodium hexafluorosilicate releases toxic fumes of hydrogen fluoride and sodium oxide, while contact with metals releases hydrogen gas. In water, the compound readily dissociates to sodium ions and hexafluorosilicate ions and then to hydrogen gas, fluoride ions, and hydrated silica. At the pH of drinking water (6.5-8.5) and at the concentration usually used for fluoridation (1 mg fluoride/L), the degree of hydrolysis is essentially 100%. Fluorosilicic acid is a moderately strong acid that can corrode glass and stoneware. Like its salt, its degree of hydrolysis is essentially 100% in drinking water, and when reacted with steam or water or when heated to decomposition or highly acidified, toxic and corrosive fumes of fluorides (e.g., hydrogen fluoride and silicon tetrafluoride) are released. It also reacts with metals, producing hydrogen gas.

Commercial Availability, Production, and Uses

Sodium hexafluorosilicate is usually commercially available in technical and C.P. grades; it was formally available in insecticides of up to ~98% purity such as granular baits. A typical product contains 59.34% fluorine and a maximum of 0.50% each of water moisture, water-insoluble matter, and heavy metals (as lead). Fluorosilicic acid is commercially available as aqueous solutions (up to 70%) in technical and C.P. grades. A typical product contains a maximum of 23% of the acid, a minimum of 18.22% fluorine, a maximum of 0.02% heavy metals (as lead), and <1.00% hydrofluoric acid. Many U.S. producers and suppliers are available for both compounds (over 20 for each). Bulk producers/suppliers include Lucier Chemical Industries and Creanova Inc.

Sodium hexafluorosilicate is produced by treating fluorosilicic acid with sodium hydroxide, sodium carbonate, or sodium chloride; alkalinity is adjusted to avoid the release of the fluoride. Fluorosilicic acid is mainly produced as a byproduct of the manufacture of phosphate fertilizers

where phosphate rock is treated with sulfuric acid. It can also be made by the reaction of sulfuric acid on barium hexafluorosilicate, apatite, or fluorite (fluorspar).

The latest available figure for U.S. production of sodium hexafluorosilicate is 19,600 metric tons (43.2 million pounds) in 1984. In that same year, 3000 metric tons (6.61 million pounds) was imported. In 1995, ten phosphate rock processing plants produced 55,900 metric tons (123 million pounds) of fluorosilicic acid as a byproduct. In 1999, ten plants again reported on the production of fluorosilicic acid as a byproduct from phosphate rock processing; 69,200 metric tons (153 million pounds) was produced. This was an almost 3% increase in output from the previous year.

The major use of sodium hexafluorosilicate and fluorosilicic acid is as fluoridation agents for drinking water. Sodium hexafluorosilicate has also been used for caries control as part of a silicophosphate cement, an acidic gel in combination with monocalcium phosphate monohydrate, and a two-solution fluoride mouth rinse. Both chemicals are also used as a chemical intermediate (raw material) for aluminum trifluoride, cryolite (Na_3AlF_6), silicon tetrafluoride, and other fluorosilicates and have found applications in commercial laundry.

Other applications for sodium hexafluorosilicate include its use in enamels/enamel frits for china and porcelain, in opalescent glass, metallurgy (aluminum and beryllium), glue, ore flotation, leather and wood preservatives, and in insecticides and rodenticides. It has been used in the manufacture of pure silicon, as a gelling agent in the production of molded latex foam, and as a fluorinating agent in organic synthesis to convert organodichlorophosphorus compounds to the corresponding organodifluorophosphorus compound. In veterinary practice, external application of sodium hexafluorosilicate combats lice and mosquitoes on cattle, sheep, swine, and poultry, and oral administration combats roundworms and possibly whipworms in swine and prevents dental caries in rats. Apparently, all pesticidal products had their registrations cancelled or they were discontinued by the early 1990s.

Fluorosilicic acid is used in the tanning of animal hides and skins, in ceramics and glass, in technical paints, in oil well acidizing, in the manufacture of hydrogen fluoride, for the sterilization of equipment (e.g., in brewing and bottling establishments and for copper and brass vehicles), and in electroplating. It is also employed as an impregnating ingredient to preserve wood and harden masonry and for the removal of mold as well as rust and stain in textiles.

Environmental Occurrence and Persistence

Fluorosilicic acid (30-35%) can readily be recovered in the hydrogen fluoride process from the silicon tetrafluoride-containing plant vent gases, as well as from wet-process phosphoric acid plants. In the manufacture of phosphate fertilizer in Central Florida, fluorides and radionuclides (radium and uranium) are released as toxic pollutants. During the acidulation process, radon gas can be released and carried into the fluorosilicic acid, while polonium can be captured during the scrubbing process and combined with fluoride.

For drinking water fluoridation, the maximum use level (MUL) for sodium hexafluorosilicate is 2 mg/L; for fluorosilicic acid, the level is 6 mg/L of a 25% fluorosilicic acid solution. Both values correspond to a fluoride concentration of 1.2 mg/L, which is below the U.S.

Environmental Protection Agency's (EPA's) Maximum Contaminant Level (MCL) of 4.0 mg/L and the Secondary Maximum Contaminant Level (SMCL) of 2.0 mg/L. The National Sanitation Foundation (NSF) has established a Maximum Drinking Water Level of 16 mg/L for silicates and a Maximum Allowable Level (MAL) of 1.2 mg fluoride/L for its certified products used in drinking water.

Human Exposure

Potential exposure to sodium hexafluorosilicate and fluorosilicic acid is via inhalation and eye and skin contact. Another route for the former compound is ingestion. Although current data indicate that silicofluorides are used in over 9200 U.S. water treatment systems, serving over 120 million individuals, exposure via drinking water is expected to be minimal since both compounds hydrolyze almost completely under these conditions.

In the workplace, exposure to both chemicals is possible during their manufacture, transportation, or use in water treatment. In the National Institute for Occupational Safety and Health (NIOSH) 1983 National Occupation Exposure Survey (NOES), 79,556 employees were potentially exposed to sodium hexafluorosilicate, while 10,867 were potentially exposed to fluorosilicic acid.

Regulations

Workers treating agricultural products with insecticides such as weevil baits and persons using roach baits and other insecticidal products containing sodium hexafluorosilicate in the home may have been exposed by inhalation or the skin, and by hand-to-mouth contact. In the United States, all pesticide uses of sodium hexafluorosilicate have been cancelled. (It is noted that its use as an insecticide is currently listed in the *2001 Farm Chemicals Handbook*, which does not note discontinuation of the product Safsan.) Both sodium hexafluorosilicate and fluorosilicic acid are listed in Section 8(b) of the Toxic Substances Control Act (TSCA; chemical inventory section). Both are also exempt from reporting under the Inventory Update Rule (i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports [40CFR, Section 710(b)]). The Occupational Safety and Health Administration (OSHA) and American Conference of Governmental Industrial Hygienists (ACGIH) have established an eight-hour time-weighted average (TWA) of 2.5 mg/m^3 fluorides, as fluorine, for work place exposure. NIOSH has also recommended an air exposure level to inorganic fluorides of 2.5 mg F/m^3 but as a ten-hour TWA.

Toxicological Data

Human Data

Chronic exposure to sodium hexafluorosilicate dust at levels above the eight-hour TWA can result in severe calcification of the ribs, pelvis, and spinal column ligaments; effects on the enzyme system; pulmonary fibrosis; stiffness; irritation of the eyes, skin, and mucous membranes; weight loss; anorexia; anemia; cachexia; wasting; and dental effects. Long-term or repeated exposure to the skin can result in skin rash. A probable oral lethal dose of 50-500 mg/kg, classified as very toxic, has been reported for a 150-pound (70-kg) person receiving between 1 teaspoon and 1 ounce of sodium hexafluorosilicate. Cases of sodium hexafluorosilicate ingestion reported symptoms such as acute respiratory failure, ventricular

tachycardia and fibrillation, hypocalcemia, facial numbness, diarrhea, tachycardia, enlarged liver, and cramps of the palms, feet, and legs.

The symptoms of inhalation of fluorosilicic acid include burning of the eyes and numbness around the lips. Symptoms do not necessarily occur immediately; they can appear 24 hours after exposure. A spill incident of the chemical on an interstate in Florida, covering an area 600 feet long and 60 feet wide, resulted in the visit of more than 50 people to hospitals. Individuals complained of skin and respiratory irritation, including burning in the throat, and headaches. A man riding in a truck with his arm out the window experienced burning on his forearm. The effects of long-term exposure to fluorosilicic acid are changes in bone, corrosivity of the mucous membranes (e.g., ulceration of the nose, throat, and bronchial tubes), coughing, shock, pulmonary edema, fluorosis, coma, and even death. In workers engaged for approximately 30 years in the production of phosphate fertilizers, nine out of the 50 observed workers had increased bone densities. When swallowed, severe irritation of the lungs, nose, and throat can occur, as well as severe damage to the throat and stomach. A probable oral lethal dose of 50-5000 mg/kg, classified as very toxic, has been reported for doses between 1 teaspoon and 1 ounce for a 150-pound (70-kg) person; a probable oral lethal dose of 5-50 mg/kg, classified as extremely toxic, has been reported for doses between 7 drops and 1 teaspoon for the same individual.

Chemical Disposition, Metabolism, and Toxicokinetics

In a female chemical plant worker who ingested sodium hexafluorosilicate in a suicide attempt, fluoride levels in serum and fresh urine were 5.130 and 235.60 mg/dm^3, respectively, on day 2 of hospitalization; treatment with calcium compounds (calcium carbonate and calcium lactogluconate) immediately returned levels to normal. In 50 workers engaged for approximately 30 years in the production of phosphate fertilizers and exposed to gaseous fluoride (hydrogen fluoride, silicon tetrafluoride, and fluorosilicic acid), urine fluoride excretion ranged from 1.0 to 9.6 mg F^-/L (controls: 0.3 to 1.2).

In rats fed a diet containing 0.16% sodium hexafluorosilicate supplemented in a corn-soybean oilmeal-casein ration *ad libitum* for 22-23 days, the average amounts of fluorine were 94.4 mg in feces and 91.9 mg in urine. The mean amount of fluorine absorbed was 65.1% and that retained was 31.0%.

Fluorine concentrations in stomach/rumen contents, urine, and blood serum have been determined in domestic animals experiencing sodium hexafluorosilicate poisoning. Significantly elevated levels were initially found, which decreased with time.

Acute Toxicity

In mice, an oral LD_{50} of 70 mg/kg (0.37 mmol/kg) for sodium hexafluorosilicate was reported. In rats, oral LD_{50} values of 125 and 430 mg/kg (0.665 and 2.29 mmol/kg, respectively) were calculated, while a TD_{Lo} of 248 mg/kg (1.32 mmol/kg) was calculated. A subcutaneous LD_{Lo} of 70 mg/kg (0.37 mmol/kg) was also reported in the animals. In rabbits, the oral LD_{50} value was 125 mg/kg (0.665 mmol/kg). In guinea pigs, an LC_{Lo} value of 33 mg/kg (0.18 mmol/kg) for sodium hexafluorosilicate was observed; additionally, an oral LD_{50} of 200 mg/kg (1.39 mmol/kg) was reported for fluorosilicic acid.

Sodium Hexafluorosilicate: Mice orally given sodium hexafluorosilicate (70 mg/kg; 0.37 mmol/kg) exhibited toxic effects in the peripheral nerves, sensation, and in behavior. In rats, an oral dose (248 mg/kg; 1.32 mmol/kg) administered intermittently for one month produced toxic effects in the kidney, ureter, and/or bladder, as well as musculoskeletal and biochemical effects. Using guinea pigs, inhalation experiments (13-55 mg/m^3 [1.7-7.2 ppm] sodium hexafluorosilicate in air for ≥6 hours) resulted in pulmonary irritation; the lowest concentration that caused death was 33 mg/m^3 (4.3 ppm).

When sodium hexafluorosilicate (500 mg; 2.66 mmol) was applied to the skin of adult rabbits, mild irritation occurred. When applied to the eyes (100 mg; 0.532 mmol), severe irritation was observed; following a four-second rinse, the effect was still severe.

Sodium hexafluorosilicate poisoning has been reported in domestic animals (cattle, sheep, a horse, and a pigeon). Animals exhibited drowsiness, constipation, loss of appetite, paresis of the rumen, severe abdominal pain, and diarrhea. Sheep also exhibited grinding of the teeth (an indication of pain) and frothing at the mouth in most cases of lethal poisoning, while the horse also had bradycardia. In a study in which sheep were orally administered technical sodium hexafluorosilicate (25, 50, 200, 1500, and 2000 mg/kg; 0.13, 0.27, 1.06, 7.976, and 10.63 mmol/kg) via stomach tube, the animals exhibited similar symptoms. Animals died 6 days after administration of 200 mg/kg and 2.5 hours after administration of 2000 mg/kg. When a dairy herd of 600 animals was acutely poisoned from railcar contamination of feed, 95% of the animals had decreased neuromuscular transmission. The poisoning resembled calcium depletion.

Fluorosilicic Acid: In rats orally given fluorosilicic acid (430 mg/kg; 2.98 mmol/kg), somnolence and/or general depressed activity was observed. Other rat studies with fluorosilicic acid (single oral doses of 215, 464, 1000, and 2100 mg/kg [1.49, 3.22, 6.939, and 14.57 mmol/kg]) led to its classification as "moderately toxic." Percutaneous administration of the compound (amounts not provided) in rats, guinea pigs, and pigs resulted in continuously spreading necrosis in the deeper regions of injured skin. Hypocellular necrosis, consisting of sharp leukocyte demarcations, and edema up to the subcutis were also observed. In rabbits, it was corrosive to the skin (0.5 mL [4 mol] for 1, 24, or 72 hours) and eyes (0.1 mL [0.8 mol] instilled into left eye).

Synergistic/Antagonistic Effects

Fluoride, administered in the form of sodium hexafluorosilicate, had a strong affinity for calcium and magnesium. When orally given to sheep via a stomach tube at doses of 25, 50, 200, 1500, and 2000 mg/kg, increased changes in serum calcium and magnesium levels were observed at the two highest doses within 30 minutes after dose administration. At 200 mg/kg, recovery of both levels occurred after five days. With the 1500 mg/kg dose group, changes in phosphorus and sugar levels in whole blood were also significantly increased.

Genotoxicity

Sodium hexafluorosilicate was negative in the Salmonella/microsome test (concentrations up to 3600 g/plate, –S9), the micronucleus test on mouse bone marrow (37.2 mg/kg; 0.198 mmol/kg), and in the *Bacillus subtilis* rec-assay system (0.001-10 M; 188 g/mL-1.9 g/mL).

The compound (0.25 mM; 47 g/mL) did not induce sex-linked recessive lethal mutations in *Drosophila*.

Other Data

Within one week after beginning work in a foam rubber plant, a 23-year-old man exhibited skin lesions consisting of "diffuse, poorly delineated, erythematous plaques with lichenoid papules and large pustules" on his arms, wrists, thighs, and trunk. Although scratch and patch tests with sodium hexafluorosilicate (2% aqueous) were negative, tests in rabbits (topical application of a 1, 5, 10, and 25% solution) showed the compound to be a pustulogen.

No short-term or subchronic exposure, chronic exposure, cytotoxicity, reproductive toxicity, teratology, carcinogenicity, or initiation/promotion studies were available.

Structure-Activity Relationships

For the same fluorine content, sodium fluoride, sodium hexafluorosilicate, cryolite (Na_3AlF_6), and barium sulfate were observed to have the same extent of chronic fluorine intoxication in rats. Ammonium fluoride, potassium fluoride, barium fluorosilicate, potassium fluorosilicate, and sodium fluorosilicate exhibited the same acute toxicity as sodium fluoride in the animals.

In a comparative study of absorption and excretion of fluorine in rats fed sodium fluoride, calcium fluoride, and sodium hexafluorosilicate, the percent fluorine retained was the same for the two sodium compounds. Several experiments on growing rats orally given 5, 10, 15, 25, and 50 ppm fluorine as sodium fluoride or sodium hexafluorosilicate for 90-100 days found no differences in the quantity of fluorine deposited and the contents of ash, calcium, and phosphorus in the incisor teeth, molar teeth, mandibles, and femurs. Furthermore, there were no differences in the percent of ingested fluorine retained in the body, and a combination of sodium silicate (15 ppm silicon) with sodium fluoride (25 ppm fluorine) did not affect the amount of fluorine deposited. The growth rate was normal in all rats. A separate study using litters of female weanling Osborne-Mendel rats that were given 50 ppm fluorine as sodium fluoride or ammonium fluorosilicate in drinking water for 99 days observed similar results.

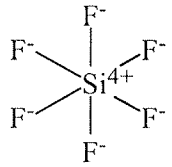
Table of Contents

1.0 Basis for Nomination

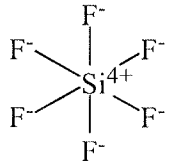
Sodium hexafluorosilicate and fluorosilicic acid were nominated for toxicological testing based on their widespread use in water fluoridation and concerns that if they are not completely dissociated to silica and fluoride in water that persons drinking fluoridated water may be exposed to compounds that have not been thoroughly tested for toxicity.

2.0 Introduction

Sodium Hexafluorosilicate
[16893-85-9]



Fluorosilicic Acid
[16961-83-4]



2.1 Chemical Identification and Analysis

2.1.1 Sodium Hexafluorosilicate

Sodium hexafluorosilicate ([Na_2SiF_6]; mol. wt. = 188.06) is also called:

Destruxol applex
Disodium hexafluorosilicate[a,b,d]
Disodium silicofluoride
Ens-zem weevil bait
ENT 1,501
Fluorosilicate de sodium
Fluosilicate de sodium
Ortho earwig bait
Ortho weevil bait
Prodan
Prodan (pesticide)
PSC Co-Op weevil bait
Safsan

Salufer
Silicate (2^-), hexafluoro-, disodium (8CI, 9CI)
Silicon sodium fluoride[a,b,c]
Sodium fluoride silicate
Sodium fluorosilicate[a,b]
Sodium fluosilicate[a,b,c]
Sodium hexafluosilicate
Sodium silicofluoride[a,b]
Sodium silicon fluoride[a,b]
Super prodan
UN2674 (DOT)

May be written as the following: [a]without any appended formula; [b]with Na_2SiF_6 appended in parentheses, [c]with $SiNa_2F_6$ appended in parentheses, [d]with (2^-) appended in parentheses, or [e]with ACN (accepted common name) appended in parentheses.

Sources: HSDB (2000b); Registry (2000); RTECS (2000); SANSS (2000)

Other CAS Registry Numbers (CASRNs) that have been used for the compound are 1310-02-7, 1344-04-3, 12656-12-1, 39413-34-8, 221174-64-7 (Registry, 2000). CASRNs for the hydrates are 10213-79-3 (pentahydrate), 15630-83-8 (hexahydrate), 27121-04-6 (octahydrate), and 13517-24-3 (nonahydrate). AOAC (Association of Official Analytical Chemists) Method 945.05 has been used to detect fluorine as sodium hexafluorosilicate in pesticide formulations (HSDB, 2000b). The chemical composition of sodium hexafluorosilicate used in water supply service applications can be determined by test procedures specified in AWWA (American Water Works Association) B702-99 (AWWA, 1999).

2.1.2 Fluorosilicic Acid

Fluorosilicic acid[e] ([H_2SiF_6]; mol. wt. = 144.11) is also called:

Dihydrogen hexafluorosilicate[a,c]
FKS
Fluosilicic acid[a,d] (6CI)
Hexafluorosilicic acid
Hexafluorosilicate (2^-), dihydrogen
Hexafluosilicic acid
Hydrofluorosilicic acid[a,e]
Hydrofluosilicic acid[a,d]
Hydrogen hexafluorosilicate[a,b]
Hydrogen hexafluorosilicic
Hydrosilicofluoric acid[a,e]
Sand acid[a,e]
Silicate (2^-), hexafluoro-, dihydrogen (8CI, 9CI)
Silicic acid (H_2SiF_6)
Silicofluoric acid[a,e]
Silicofluoride
Silicon hexafluoride dihydride
UN1778 (DOT)

May be written as the following: [a]without any appended formula; [b]with H_2SiF_6 appended in parentheses, [c]with (2^-) appended in parentheses, [d]with ACN (accepted common name) appended in parentheses, or [e]with DOT (Department of Transportation) appended in parentheses.

Sources: HSDB (2000a); Registry (2000); RTECS (2000); SANSS (2000)

Other CASRNs that have been used for the compound are 1309-45-1 and 12672-67-2 (Registry, 2000). Total fluorine in fluorosilicates can be detected by the lead chlorofluoride method. In air, an ion-specific electrode procedure with a range of 0.05 to 475 mg fluoride/m^3 has been used (HSDB, 2000a). The percentage of fluorosilicic acid content for water supply service application can be determined by the specific-gravity method and the hydrogen titration method (specified in AWWA B703-94); the latter is the preferred method, since the former procedure provides a "very rough estimation." AWWA has specified that fluorosilicic acid must contain 20 to 30% active ingredient, a maximum of 1% hydrofluoric acid, a maximum of 200 mg/kg heavy metals (as lead), and no amounts of soluble mineral or organic substance that can cause health effects (AWWA, 2000; HSDB, 2000a). Analyses of tap water treated with silicofluorides (e.g., samples from Seattle, WA, San Francisco, CA, and Ft. Collins, CO) have revealed insignificant lead and arsenic levels (CSDS, 2001). Recently, single-column ion chromatography with conductometric detection and sodium hydroxide-methanol-water eluent was used for the simultaneous determination of fluorosilicic acid, Ca^{2+}, Mg^{2+}, Al^{3+}, Cl^-, and NO_3^-; the detection limit for the anion of the acid was 1.25×10^6 M. It was successfully applied to the analysis of mineral water and composite tablets (Xu et al., 2001).

2.2 Physical-Chemical Properties

Property	Information	Reference(s)
Sodium hexafluorosilicate		
Physical State	white, granular, crystalline, or free-flowing powder; white hexagonal crystals	HSDB (2000b)
Odor	odorless	
Boiling Point (°C)	decomposes at 500	LCI, Ltd. (2000b)
Melting Point (°C)	melts at red heat with decomposition	HSDB (2000b)
Specific Gravity (g/cm^3)	2.7	
pH Value	neutral (solution in cold water)	
	3.0-4.5 (1% solution)	LCI, Ltd. (2000b)
Water Solubility	soluble in cold water (150 parts) and boiling water (40 parts)	HSDB (2000b)
mg/L or g/m^3 at 17.5 ¡C	6,500	Worthing (1987; cited by Shiu et al., 1990)
mg/L or g/m^3 at 20 ¡C	72,000	Dean (1985; cited by Shiu et al., 1990)
Insoluble in	alcohol (e.g., ethanol)	HSDB (2000b)
Fluorosilicic acid		
Physical State	colorless liquid; white crystals	HSDB (2000a)
Odor	sour, pungent	
Density @ 25 ¡C	1.4634 (60.97% solution)	
Boiling Point (°C)	decomposes (60.97% solution)	
	105 (25% solution)	LCI, Ltd. (2000a)
Freezing Point (°C)	-15.5 (25% solution)	
Specific Gravity (g/cm^3)	1.234 (25% solution) @ 16 ¡C	LCI, Ltd. (2000a)
pH Value	1.2 (1% solution)	LCI, Ltd. (undated-a)
Soluble in	alkali; cold and hot water	HSDB (2000a)

In alkaline medium, fluorosilicate solutions are readily hydrolyzed; in acidic conditions, silicon tetrafluoride and hydrogen fluoride are released. Thermal decomposition of fluorosilicates releases gaseous silicon tetrafluoride and forms solid fluoride. When heated to decomposition,

sodium hexafluorosilicate releases toxic fumes of hydrogen fluoride and sodium oxide; contact with metals can release hydrogen gas (HSDB, 2000b; NICNAS, 2001).

Fluorosilicic acid is a moderately strong acid that can corrode glass and stoneware. At about 19 °C, a 60-70% solution solidifies, forming crystalline dihydrate. A 13.3% solution may be distilled without decomposition. Fluorosilicic acid is deliquescent that is, it absorbs moisture from the air and becomes liquid (HSDB, 2000a). It produces toxic and corrosive fumes of fluorides (e.g., hydrogen fluoride and silicon tetrafluoride) when reacted with water or steam or when the compound is heated to decomposition or highly acidified with sulfuric acid (HSDB, 2000a; NICNAS, 2001). It also reacts with many metals, producing hydrogen gas (HSDB, 2000a; LCI, Ltd., undated-a).

Aqueous Chemistry

In water, the compound readily dissociates to sodium ions and hexafluorosilicate ions. At the pH of drinking water (6.5-8.5) and at the concentration usually used for fluoridation (1 mg fluoride/L), essentially 100% of sodium hexafluorosilicate dissociates to fluoride ions and hydrated silica (Crosby, 1969; Urbansky and Schock, 2000). In a quasi-constant composition titration study using high concentrations of hydrogen ion (H^+) and calcium ion (Ca^{2+}), the promoting effect of Ca^{2+} on the hydrolysis of sodium hexafluorosilicate was observed to be stronger than the inhibiting effect of H^+, thereby causing faster hydrolysis at low pH (Eidelman and Chow, 1991).

$$Na_2SiF_6(aq) + 4\ H_2O \quad 4\ HF(aq) + 2\ NaF(aq) + Si(OH)_4(aq)$$

In water, fluorosilicic acid readily hydrolyzes to hydrofluoric acid and various forms of amorphous and hydrated silica. At the concentration usually used for water fluoridation, 99% hydrolysis occurs and the pH drops to 4.2. As pH increases, hydrolysis increases. At the pH of drinking water, the degree of hydrolysis is "essentially 100%" (Crosby, 1969; Urbansky and Schock, 2000).

$$H_2SiF_6(aq) + 4\ H_2O \quad 6\ HF(aq) + Si(OH)_4(aq)$$

2.3 Commercial Availability

Sodium hexafluorosilicate is available as granular bait and in technical and C.P. grades. It is usually commercially available as ~98% pure (HSDB, 2000b). A typical product contains 59.34% fluorine and a maximum of 0.50% each of moisture as water, water-insoluble matter, and heavy metals (as lead) (LCI, Ltd., 2000b). Chemical producers include Chemtech Products Inc. (Alorton, IL), IMC-Agrico Company (Faustina, LA), and Kaiser Aluminum and Chemical Corporation (Mulberry, FL) (SRI Int., 2000). Lucier Chemical Industries produces and ships sodium hexafluorosilicate in 25-kg bags and 50-pound bags (LCI, Ltd., 2000b). It is supplied by GFS Chemicals Inc. (Powell, OH) and Spectrum Chemical Manufacturing Corporation (Gardena, CA) (Chemcyclopedia Online, 2001). Chem Sources (2001) has identified 24 suppliers of the compound; bulk suppliers include Creanova Inc. (Somerset, NJ) and Seal Chemical Industries (Newport Beach, CA). RIMI Chemicals Company Ltd. formulates the chemical as the product Safsan (Farm Chem. Handbook, 2001).

Fluorosilicic acid is commercially available as aqueous solutions of 5, 10, 15, 20, 25, 30, 34, and 60-70% in technical and C.P. grades (HSDB, 2000a). A typical product contains a minimum of 23% of the acid, a minimum of 18.22% fluorine, a maximum of 0.02% heavy metals (as lead), and <1.00% hydrofluoric acid (LCI, Ltd., 2000a). It is produced by Cargill Fertilizer, Inc. (Riverview, FL), Chemtech Products Inc. (Alorton, IL), Farmland Hydro, L.P. (Bartow, FL), IMC-Agrico Company (Faustina, LA; Nichols, FL; South Pierce, FL; Uncle Sam, LA), PCS Phosphate Company, Inc. (Aurora, NC), Royster-Clark Inc. (Americus, GA; Florence, AL; Hartsville, SC), and U.S. Agri-Chemicals Corporation (Fort Meade, FL) (SRI Int., 2000). Cargill Fertilizer, Inc. produces fluorosilicic acid as a primary nutrient (Farm Chem. Handbook, 2001). Another producer, Lucier Chemical Industries (Jacksonville Beach, FL) ships its product in tank cars, tank trucks, and drums (LCI, Ltd., 2000a). Chem Sources (2001) has identified 16 suppliers of fluorosilicic acid; bulk suppliers include Creanova Inc. (Somerset, NJ), Fluka (Milwaukee, WI), and Spectrum Laboratory Products, Inc. (Gardena, CA). Under the name hydrofluorosilicic acid [56977-47-0], it is supplied by Alfa Aesar/Johnson Matthey (Ward Hill, MA) and Solvay Fluorides Inc. (St. Louis, MO) (Chemcyclopedia Online, 2001).

3.0 Production Processes

Sodium hexafluorosilicate is produced by the neutralization of fluorosilicic acid with sodium hydroxide, sodium carbonate, or sodium chloride under vigorous agitation. The amount of the alkali is controlled so as not to result in the fluoride (HSDB, 2000b).

Fluorosilicic acid is mainly produced as a byproduct of the manufacture of phosphate fertilizers where phosphate rock, containing fluorides and silica or silicates, is treated with sulfuric acid. The gases released, hydrogen fluoride and silicon tetrafluoride, are sprayed with water in condensing towers or drawn into a series of scrubbers and dissolved in water, forming an aqueous solution of fluorosilicic acid (CSDS, 2001; Farm Chem. Handbook, 2001; NICNAS, 2001). This is the crude form of fluorosilicic acid; the purified form is obtained by distillation of the crude acid or by reacting pure silica with hydrofluoric acid. The compound can also be made by the reaction of sulfuric acid on barium hexafluorosilicate (HSDB, 2000a). Furthermore, fluorosilicic acid is manufactured by the reaction of apatite and/or fluorite (fluorspar) with sulfuric acid (LCI, Ltd., 2000a). Its production from phosphoric acid producers supplements fluorspar as a domestic source of fluorine (Miller, 1995, 1999).

4.0 Production and Import Volumes

The latest available figure for U.S. production of sodium hexafluorosilicate is 19,600 metric tons (43.2 million pounds) in 1984. In that same year, 3000 metric tons (6.61 million pounds) was imported (HSDB, 2000b).

In 1995, ten phosphate rock processing plants produced 55,900 metric tons (123 million pounds) of fluorosilicic acid as a byproduct. Of this amount, 45% was used in water fluoridation, directly or as the sodium salt, while 34% went toward the production of aluminum trifluoride and 20% went toward other uses (Miller, 1995). In 1999, ten plants again reported on the production of fluorosilicic acid as a byproduct from phosphate rock processing; 69,200 metric tons (153 million pounds) was produced, and 69,100 metric tons (152 million pounds) was sold or used. This was an almost 3% increase in output from the previous year. The amount used for water fluoridation was 34, 900 metric tons (51%), while 19,000 metric tons (27%) was used for aluminum trifluoride production, and 15,300 metric tons (22%) was used for other uses such as

sodium hexafluorosilicate production (Miller, 1999). The latest figures are definitely an increase compared to the 1975 and 1976 U.S. production of the acid at 30,000 metric tons (66 million pounds) from phosphoric acid manufacturing. No import data were found (HSDB, 2000a).

5.0 Uses

The major use of sodium hexafluorosilicate and fluorosilicic acid is as fluoridation agents for drinking water (HSDB, 2000a,b; Urbansky and Schock, 2000). They have been added to water since the mid-1940s to prevent tooth decay (Chem. Mark. Rep., 2000). Sodium hexafluorosilicate has also been used for caries control as part of a silicophosphate cement and as an acidic gel in combination with monocalcium phosphate monohydrate (Jinks et al., 1982 abstr.; Takagi et al., 1992). As part of a two-solution fluoride mouth rinse, it resulted in enhanced remineralization of human enamel lesions and root lesions (Takagi et al., 1997; Chow et al., 2000).

Both chemicals are also used as a chemical intermediate (raw material) for aluminum trifluoride, cryolite (Na_3AlF_6), silicon tetrafluoride, and other fluorosilicates (HSDB, 2000a,b). In addition, they have found applications in commercial laundry; sodium hexafluorosilicate acts as a laundry souring agent and the acid acts as a neutralizer for alkalis (LCI, Ltd., 2000a,b).

Other applications for sodium hexafluorosilicate include its use in enamels/enamel frits for china and porcelain, in opalescent glass, metallurgy (aluminum and beryllium), glue, ore flotation, leather and wood preservatives, and in insecticides and rodenticides (e.g., moth repellent and for the control of Noctuid larvae [i.e., cotton leafworms, mole crickets, grasshoppers, locusts, crane flies, earwigs, and sowbugs]) (HSDB, 2000b; LCI, Ltd. 2000b; Farm Chem. Handbook, 2001). It has been used in the manufacture of pure silicon and as a gelling agent in the Dunlop process (production of molded latex foam) (HSDB, 2000b). Recently, it has been used in organic synthesis as a fluorinating agent to convert organodichlorophosphorus compounds to the corresponding organodifluorophosphorus compound in low to moderate yields (up to 75%) (Farooq, 1998). In veterinary practice, externally applied sodium hexafluorosilicate has been used to combat lice and mosquitoes on cattle, sheep, swine, and poultry. It has been given orally to combat roundworms and possibly whipworms in swine and added to feed (50 ppm) to prevent dental caries in rats (HSDB, 2000b). Sodium hexafluorosilicate is listed as an oral care agent on the International Nomenclature of Cosmetic Ingredients inventory established under a European Commission Directive (96/335/EC) (INCI, 1998).

Fluorosilicic acid is used in the tanning of animal hides and skins, in ceramics and glass (glass etching), in technical paints, in oil well acidizing, and in the manufacture of hydrogen fluoride. It is also employed as an impregnating ingredient to preserve wood and harden masonry and for the removal of mold as well as rust and stain in textiles. It has been used for the sterilization of equipment (e.g., in brewing and bottling establishments and for copper and brass vehicles) as well as in electroplating (HSDB, 2000a; LCI, Ltd., 2000a). A typical electrolyte contains 95 g/L free fluorosilicic acid (King and Ramachandran, 1995). In the electrolytic refining of lead, the electrolyte contains 33% of the acid (Howe, 1981).

6.0 Environmental Occurrence and Persistence

In the hydrogen fluoride process, fluorosilicic acid (30-35%) can readily be recovered from the silicon tetrafluoride-containing plant vent gases, which are absorbed in water. It can also be

recovered from wet-process phosphoric acid plants and then processed to form hydrogen fluoride (Smith, 1994; Woytek, 1980). In this process, 45-60% gaseous fluorine compounds are recoverable. The fluorosilicic acid is usually disposed of by converting it into inert and harmless waste products; usually, neutralization with limestone or milk of lime is done to precipitate the acid as a mixture of calcium fluoride and silica. However, small amounts of poisonous fluorine compounds remain in the effluent (Denzinger et al., 1979).

The manufacture of phosphate fertilizer in Central Florida releases not only fluorides as a toxic pollutant but also radionuclides. Radium wastes come from the filtration systems. Uranium and its decay-rate products are found in the phosphate rock and fertilizer as well as the byproduct fluorosilicic acid. During the wet-process procedure, trace amounts of both radium and uranium are captured in the scrubbers and therefore are in the fluorosilicic acid. During the acidulation process yielding phosphoric acid, radon gas in the phosphate pebbles can be released and carried into the fluorosilicic acid, while polonium can be captured during the scrubbing process and then can combine with fluoride (Glasser, undated).

The Centers for Disease Control (CDC) and EPA recommended levels for fluoride in drinking water ranges from 0.6-1.2 ppm (CSDS, 2001). For drinking water fluoridation, the maximum use level (MUL) for sodium hexafluorosilicate is 2 mg/L; for fluorosilicic acid, the level is 6 mg/L of a 25% fluorosilicic acid solution. Both values correspond to a fluoride concentration of 1.2 mg/L, which is below the U.S. Environmental Protection Agency's (EPA's) Maximum Contaminant Level (MCL) of 4.0 mg/L and the Secondary Maximum Contaminant Level (SMCL) of 2.0 mg/L. Although EPA has no MCL for silicate in drinking water, the National Sanitation Foundation (NSF) has established a Maximum Drinking Water Level of 16 mg/L for silicates. For NSF Certified Products used in drinking water, the Maximum Allowable Level (MAL) for fluoride is 1.2 mg/L; the MUL of the products ranges from 4 to 6.6 mg/L (NSF Int., 2000a). At its plant in Riverview, FL, Cargill Fertilizer, Inc. had an MUL of 8 mg/L sodium hexafluorosilicate (equivalent to 1.2 mg/L fluoride) for fluoridation (NSF Int., 2001). While the majority of 29 manufacturers of fluorosilicic acid had an MUL of 6 mg/L, a level of 6.6 mg/L was measured at the IMC-Agrico Company plant at Uncle Sam, LA. [The Hydrite Chemical Company's MUL was 1.7 mg/L at three plants, while the American Development Corporation had an MUL of 4 mg/L at two plants] (NSF Int., 2000b).

7.0 Human Exposure

Potential exposure to sodium hexafluorosilicate is via inhalation of dusts, ingestion, and eye and skin contact (HSDB, 2000b). The main routes of entry of fluorosilicic acid are inhalation and eye and skin contact (HSDB, 2000a; LCI, Ltd., undated-a).

Exposure to sodium hexafluorosilicate is possible from its use to control crawling insects in homes and work buildings. The chemical has "high inherent toxicity," and children may ingest the material from crawling on the floors of treated houses (U.S. EPA, 1999).

In 1992, 5876 U.S. public water suppliers were using fluorosilicic acid and 1635 utilities were using its sodium salt for water fluoridation, serving greater than 80 and 36 million persons, respectively (Urbansky and Schock, 2000). Currently, silicofluorides are used in over 9200 U.S. water treatment systems, serving over 120 million individuals (CSDS, 2001). Exposure via drinking water is, however, expected to be minimal, since at concentrations used in water

fluoridation and at the normal pH of drinking water, both compounds hydrolyze almost completely (see Section 2.2) (Urbansky and Schock, 2000). At equilibrium, the hexafluorosilicate remaining in drinking water is estimated to be <<1 parts per trillion (Urbansky and Schock, 2000). In addition, exposure to impurities in the fluoridating agent is judged to be of low health risk when properly treated water is ingested. For example, in fluorosilicic acid, iron and iodine are usually below the levels considered useful as a dietary supplement; the phosphorus level is reported to be insignificant; and silver is usually <4 parts per septillion in the fluoridated water (CSDS, 2001).

In the workplace, exposure to both chemicals is possible during their manufacture, transportation, or use in water treatment (HSDB, 2000a,b). In the NIOSH 1983 National Occupational Exposure Survey (NOES) of 8057 facilities, 74 industries, and 60 occupations, 79,556 employees were potentially exposed to sodium hexafluorosilicate; the total number of female employees potentially exposed was 22,185. In the 1983 NOES of 1758 facilities, 19 industries, and 15 occupations, 10,867 employees were potentially exposed to fluorosilicic acid; the total number of females potentially exposed was 2068 (RTECS, 2000).

8.0 Regulatory Status

Under EPA's Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), sodium hexafluorosilicate as a pesticide was subject to registration or re-registration in 1988 (RTECS, 2000). In August 1995, the act was amended, eliminating fluorosilicate compounds from the registration list and their sale for pesticide use (40CFR153, Subpart H) (U.S. EPA, 1995). In the United States, all pesticide uses have been cancelled (U.S. EPA, 1999). The registrations of insecticide formulations containing 0.18% to 98.5% sodium hexafluorosilicate, some on the market since the late 1940s, were cancelled in the late 1980s and early 1990s. Target organisms included roaches, moths, and weevils. Other cancelled fluorosilicate products were formulated with sodium aluminum fluorosilicate or aluminum fluorosilicate (NPIRS©, 2001). [It is noted that the use of sodium hexafluorosilicate as an insecticide is currently listed in the *2001 Farm Chemicals Handbook* (see Section 5.0).] Both sodium hexafluorosilicate and fluorosilicic acid are listed in Section 8(b) of the Toxic Substances Control Act (TSCA; chemical inventory section). Both are also exempt from reporting under the Inventory Update Rule (i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports [40CFR, Section 710(b)]) (TSCAINV, 2000). The Occupational Safety and Health Administration (OSHA) and American Conference of Governmental Industrial Hygienists (ACGIH) have established an eight-hour time-weighted average (TWA) of 2.5 mg/m^3 fluorides, as fluorine. OSHA has established this Permissible Exposure Limit (PEL) for the general industry (29CFR1910.1000), construction (29CFR1915.1000), shipyard (29CFR1926.55), and federal contracts (41CFR50-204.50). The ACGIH short-term excursion limit (STEL) recommendation is that excursions in worker exposure levels may exceed three times the threshold limit value (TLV)-TWA for no more than 30 minutes during a work day and not exceed five times the TLV-TWA, provided that the TLV-TWA is not exceeded. ACGIH has listed fluorides, as fluorine, as "A4 not classifiable as a human carcinogen" (HSDB, 2000b; RTECS, 2000). NIOSH has also recommended an air exposure level to inorganic fluorides of 2.5 mg F/m^3 but as a ten-hour TWA (RTECS, 2000).

9.0 Toxicological Data

9.1 General Toxicology

Chronic ingestion of excessive amounts of fluoride produces osteosclerosis and mottled tooth enamel. Chronic exposure increases osteoblastic activity as well as the density and calcification of bone (Gilman et al., 1980; cited by HSDB, 2000a).

9.1.1 Human Data

Sodium Hexafluorosilicate

Chronic exposure to dust at levels above the PEL or TLV can result in severe calcification of the rib, pelvis, and spinal column ligaments; effects on the enzyme system; pulmonary fibrosis; stiffness; irritation of the eyes, skin, and mucous membranes; weight loss; anorexia; anemia; cachexia; wasting; and dental effects. Long-term or repeated exposure to the skin can result in skin rash (LCI, Ltd., undated-b). Contact with the molten forms of the chemical may cause severe burns to the skin and eyes (HSDB, 2000b).

The clinical signs and symptoms after ingestion of soluble fluoride salts occur in the following five stages: (I) salty or soapy taste, salivation, nausea, abdominal pain, vomiting, (bloody) diarrhea, dehydration, and thirst; (II) muscle weakness, tremors, and in rare instances transient epileptiform convulsions, which may lead to central nervous depression; (III) shock characterized by pallor, weak and thready pulse, shortness of breath, weak heart sounds, wet and cold skin, cyanosis, dilated pupils, followed by death in two to four hours; (IV) when death has not occurred, paralysis of muscle deglutition, carpopedal spasm, and spasm of extremities; and (V) occasionally localized or generalized urticaria. A probable oral lethal dose of 50-500 mg/kg, classified as very toxic, has been reported for a 150-pound (70-kg) person receiving between 1 teaspoon and 1 ounce of the chemical (Gosselin et al., 1976; cited by HSDB, 2000b).

A girl (2.5 years old) who ingested sodium hexafluorosilicate "developed acute respiratory failure, a prolonged AT interval, ventricular tachycardia and fibrillation, hypokalemia, hypocalcemia (3 to 4 mg/100 mL), and aspiration pneumonia" (Ellenhorn et al., 1997; cited by HSDB, 2000b). In a suicide attempt, a female chemical plant worker (32 years old) who ingested three teaspoons of sodium hexafluorosilicate immediately began vomiting, and then experienced facial numbness, diarrhea, diaphoresis, muscle spasms, weakness, abdominal pain, dyspnea, shallow breathing, and cramps of the palms, feet, and legs. Tachycardia and tachypnea were observed. After 12 hours, generalized weakness and enlargement of the liver continued. Treatment with calcium compounds (calcium carbonate initially; calcium lactogluconate for ten days after life-threatening symptoms had diminished) resulted in recovery within 21 days (Dadej et al., 1987).

Fluorosilicic Acid

Contact with the molten forms of fluorosilicic acid may cause severe burns to the skin and eyes. It is also extremely corrosive to the respiratory tract (Hawley, 1981; cited by HSDB, 2000a). The symptoms of inhalation include burning of the eyes and numbness around the lips. Symptoms do not necessarily occur immediately; they can appear 24 hours after exposure.

On the morning of September 6, 1994, a tanker truck spilling 4500 gallons of fluorosilicic acid on Interstate 4 near Deltona, Florida, covering an area 600 feet long and 60 feet wide, resulted in the evacuation of approximately 2300 people from their homes into shelters. Later in the day, fumes were detected in the Deltona Woods neighborhood; because the acid could be carried by the wind, everyone within a mile radius was evacuated, which included 1,750 people in Orange County and 500 people in Deltona. More than 50 people went to hospitals, complaining of skin and respiratory irritation, including burning in the throat, and headaches. An individual riding in a truck with his arm out the window experienced burning on his forearm (Lancaster, 1994).

The effects of long-term exposure to fluorosilicic acid are changes in bone, corrosivity of the mucous membranes (e.g., ulceration of the nose, throat, and bronchial tubes), coughing, shock, pulmonary edema, fluorosis, coma, and even death (LCI, Ltd., undated-a). In a study of 50 workers engaged for approximately 30 years in the production of phosphate fertilizers, the concentration of gaseous fluoride (hydrogen fluoride, silicon tetrafluoride, and fluorosilicic acid) ranged from 0.04 to 0.17 mg/m^3. Nine workers had increased bone densities (Fabbri et al., 1978; cited by HSDB, 2000a).

When swallowed, severe irritation of the lungs, nose, and throat can occur, as well as severe damage to the throat and stomach (LCI, Ltd., undated-a). A probable oral lethal dose of 50-5000 mg/kg, classified as very toxic, has been reported for doses between 1 teaspoon and 1 ounce for a 150-pound (70-kg) person; a probable oral lethal dose of 5-50 mg/kg, classified as extremely toxic, has been reported for doses between 7 drops and 1 teaspoon for the same individual (Gosselin et al., 1984; cited by HSDB, 2000a).

9.1.2 Chemical Disposition, Metabolism, and Toxicokinetics

In a female chemical plant worker who ingested sodium hexafluorosilicate (see Section 9.1.1), fluoride levels in serum and urine (fresh) were 5.130 and 235.60 mg/dm^3, respectively, on day 2 of hospitalization. Treatment with calcium compounds (calcium carbonate and calcium lactogluconate) immediately returned levels to normal. The following day, the levels dropped to 0.399 and 15.39 mg/dm^3, respectively; by day 20, the levels were 0.067 and 0.87 mg/dm^3, respectively (Dadej et al., 1987).

In 50 workers engaged for approximately 30 years in the production of phosphate fertilizers and exposed to gaseous fluoride (hydrogen fluoride, silicon tetrafluoride, and fluorosilicic acid), urine fluoride excretion ranged from 1.0 to 9.6 mg F^-/L (controls: 0.3 to 1.2) (Fabbri et al., 1978; cited by HSDB, 2000a).

In rats fed a diet containing 0.16% sodium hexafluorosilicate supplemented in a corn-soybean oilmeal-casein ration *ad libitum* for 22-23 days, the average amounts of fluorine were 94.4 mg in feces and 91.9 mg in urine. The mean amount of fluorine absorbed was 65.1% and that retained was 31.0% (Kick et al., 1935).

From 1965 to 1974, 170 cases of suspected fluorosilicate poisoning were reported in domestic animals. For positive cases, the animals were poisoned from ingestion of bait, which had not been disposed of after use. Of these, 27 cases were used in the chemical diagnosis of sodium hexafluorosilicate poisoning (13 for cattle, 11 for sheep, and 1 each for horse, pigeon, and concentrate for sheep) (see also Section 9.1.3). In cattle and sheep, measured fluorine

concentrations ranged from 120 to 2900 ppm (wet weight) in stomach/rumen contents and up to 75 ppm in urine. In blood serum, 8 and 3 ppm fluorine were determined in one animal from the groups of poisoned cattle and sheep, respectively (Egyed and Shlosberg, 1975).

When sheep were given sodium hexafluorosilicate via stomach tube (25, 50, 200, 1500, and 2000 mg/kg; 0.13, 0.27, 1.06, 7.976, and 10.63 mmol/kg), blood serum concentrations and urine levels of fluoride initially significantly increased and then decreased with time. For example, the low-dose group had blood serum concentrations ranging from 0.1-0.165 ppm fluoride prior to treatment and 4.2 ppm fluoride six hours after dose administration. By day 4, levels dropped to 0.38 ppm fluoride. Corresponding urine levels of fluoride were 1.35-6.75, 175, and 25 ppm, respectively (Egyed and Shlosberg, 1975).

9.1.3 Acute Exposure

Acute toxicity values for sodium hexafluorosilicate and fluorosilicic acid are presented in **Table 1**. The details of selected studies discussed in this section are presented in **Table 2**.

Table 1. Acute Toxicity Values for Sodium Hexafluorosilicate and Fluorosilicic Acid

Route	Species (sex and strain)	$LC_{Lo}/LD_{50}/LD_{Lo}/TD_{Lo}$	Reference(s)
Sodium hexafluorosilicate			
oral	mouse (sex and strain n.p.)	LD_{50} = 70 mg/kg; 0.37 mmol/kg	RTECS (1997)
	rat (sex and strain n.p.)	LD_{50} = 125 mg/kg; 0.665 mmol/kg	HSDB (2000b)
	rat (F, Sprague-Dawley albino white)	LD_{50} = 430 mg/kg; 2.29 mmol/kg	Rhone-Poulenc Inc. (1971)
	rat (sex and strain n.p.)	TD_{Lo} = 248 mg/kg; 1.32 mmol/kg	RTECS (1997)
	rabbit (sex and strain n.p.)	LD_{50} = 125 mg/kg; 0.665 mmol/kg	
s.c.	rat (sex and strain n.p.)	LD_{Lo} = 70 mg/kg; 0.37 mmol/kg	
inh	guinea pig (sex and strain n.p.)	LC_{Lo} = 33 mg/kg; 0.18 mmol/kg	Patty (1963; cited by HSDB, 2000b)
Fluorosilicic acid			
oral	guinea pig (sex and strain n.p.)	LD_{50} = 200 mg/kg; 1.39 mmol/kg	LCI, Ltd. (undated-a)

Abbreviations: F = female(s); inh = inhalation; LC_{Lo} = lethal concentration low; LD_{50} = lethal dose for 50% of test animals; LD_{Lo} = lethal dose low; n.p. = not provided; s.c. = subcutaneous(ly); TD_{Lo} = toxic dose low

Sodium Hexafluorosilicate

Mice orally given sodium hexafluorosilicate (70 mg/kg; 0.37 mmol/kg) exhibited toxic effects in the peripheral nerves, sensation, and in behavior. In rats, an oral dose (248 mg/kg; 1.32 mmol/kg) administered intermittently for one month produced toxic effects in the kidney, ureter, and/or bladder, as well as musculoskeletal and biochemical effects (RTECS, 1997). Using guinea pigs, inhalation experiments (13-55 mg/m^3 [1.7-7.2 ppm] sodium hexafluorosilicate in air for ≥6 hours) resulted in pulmonary irritation; the lowest concentration that caused death was 33 mg/m^3 (4.3 ppm) (Patty, 1963; cited by HSDB, 2000b).

Table 2. Acute Exposure to Sodium Hexafluorosilicate and Fluorosilicic Acid

Species, Strain, and Age, Number, and Sex of Animals	Chemical Form and Purity	Route, Dose, Duration, and Observation Period	Results/Comments	Reference
Sodium hexafluorosilicate				
Mouse strain, age, number, and sex n.p.	sodium hexafluoro-silicate, purity n.p.	oral; 70 mg/kg (LD_{50}; 0.37 mmol/kg); duration and observation period n.p.	Toxic effects were observed in the peripheral nerves and sensation (flaccid paralysis without anesthesia, generally neuromuscular blockage) and in behavior (ataxia and muscle contraction or spasticity).	RTECS* (1997)
Rats, strain, age, number, and sex n.p.	sodium hexafluoro-silicate, purity n.p.	oral; 248 mg/kg (1.32 mmol/kg) for 30 days intermittent; observation period n.p.	Toxic effects in the kidney, ureter, and/or bladder (other changes in urine composition) were observed. Musculoskeletal (other changes) and biochemical (enzyme inhibition, induction, or changes in blood or tissue [phosphatases] levels) effects were seen.	RTECS* (1997)
Rats, strain, age, number, and sex n.p.	sodium hexafluoro-silicate, purity n.p.	s.c.; 70 mg/kg (LD_{Lo}; 0.37 mmol/kg); duration and observation period n.p.	Fatty liver degeneration and other changes in the liver and toxic effects in the kidney, ureter, and bladder primarily changes in glomeruli were observed.	RTECS* (1997)
Guinea pigs, strain, age, number, and sex n.p.	sodium silicofluoride as dust, purity n.p.	inhalation; 13-55 mg/m^3 (1.2-7.2 ppm) in air for ≥6 h; observation period n.p.	Pulmonary irritation was observed. The lowest concentration that caused death when inhaled for 6 h was 33 mg/m^3.	Patty (1963; cited by HSDB, 2000b)
Sheep, Awassi breed, 1- to 3-yr-old, 5F	technical sodium hexafluorosilicate, purity n.p.	oral (via stomach tube); 25, 50, 200, 1500, and 2000 mg/kg (0.13, 0.27, 1.06, 7.976, and 10.63 mmol/kg) suspended in water; duration and observation period n.p.	With the 25- and 50-mg/kg doses, animals exhibited grinding of teeth (an indication of pain), dullness, and mild diarrhea. At 200 mg/kg, additional symptoms were experienced and included staggering and severe diarrhea. Animals died on day 6. With the two higher doses, licking of the lips, kicking of the belly, grinding of the teeth, falling down (after 1.5 h), frothing at the mouth, congested conjunctiva, protrudation of the tongue, forced and labored breathing, fever, and increased respiration and heart rates were observed. Animals died 3 h after administration of 1500 mg/kg and 2.5 h after administration of 2000 mg/kg. Post-mortem examination showed serous pericardial fluid (few milliliters), a slightly friable liver, mild edema in the lungs, and froth in the trachea. Hemorrhages occurred on the spleen and mucosal folds of the abomasum, and a gelatinous fluid was present in the colon. For the 1500 mg/kg-dose group, the change in GOT went from 132% (of pretreatment activity) at 1.5 hours to 230% at 2.5 hours. For LDH, the change was 158% at death. The serum ICDH change increased from 168% after one hour to 984% at death.	Egyed and Shlosberg (1975)

Table 2. Acute Exposure to Sodium Hexafluorosilicate and Fluorosilicic Acid (Continued)

Species, Strain, and Age, Number, and Sex of Animals	Chemical Form and Purity	Route, Dose, Duration, and Observation Period	Results/Comments	Reference
Fluorosilicic acid				
Rats, strain, age, number, and sex n.p.	fluorosilicic acid, purity n.p.	oral; 430 mg/kg (LD_{50}; 2.98 mmol/kg); duration and observation period n.p.	Somnolence and/or general depressed activity was observed.	RTECS* (2000)
Rats, Sprague-Dawley albino, age n.p., 5F per dose level	fluorosilicic acid (~23%, neat), purity n.p.	oral (via stomach tube); single doses of 215, 464, 1000, and 2100 mg/kg (1.49, 3.22, 6.939, and 14.57 mmol/kg) dissolved in water. Animals were observed for 14 days and then necropsied.	With 464 mg/kg, 3 out of 5 rats died; at ≥1000 mg/kg, 100% mortality was observed. At ≥464 mg/kg, acute depression was observed. Necropsy showed that animals in the low-dose group were "grossly normal" and that dead rats had massive hemorrhages in the entire gastrointestinal tract.	Rhone-Poulenc Inc. (1971)
Rats, guinea pigs, and swine tested as a group; no other data were provided	fluorosilicic acid, purity n.p.	percutaneous; amounts, duration, and observation period n.p.	The intact skin was not affected. When areas were injured before application of the acid, necrosis, continuously spreading, occurred in the deeper regions. Hypocellular necrosis, consisting of sharp leukocyte demarcations, and edema up to the subcutis were observed.	Alhassan and Zink (1982; cited by HSDB, 2000a)
Rabbits, New Zealand, age n.p., 6, sex n.p.	fluorosilicic acid (~23%, neat), purity n.p.	dermal; 0.5 mL (4 mol) to the intact and abraded skin for 1, 24, or 72 h	Severe erythema and edema were observed, indicating the material to be a primary irritant.	Rhone-Poulenc Inc. (1971)
Rabbits, New Zealand, age n.p., 6, sex n.p.	fluorosilicic acid (~23%, neat), purity n.p.	instillation; 0.1 mL (0.8 mol) into the left eye. Eyes were observed at 24, 48, and 72 h following treatment.	Severe and permanent corneal opacity with scar tissue occurred.	Rhone-Poulenc Inc. (1971)

Abbreviations: GOT = glutamate oxaloacetate transaminase; h = hour(s); ICDH = isocitric dehydrogenase; LDH = lactate dehydrogenase; n.p. = not provided

*RTECS uses codes for Toxic Effects. For some codes, it is unclear whether the effects occur in all organs (e.g., M02 — KIDNEY, URETER, BLADDER [Changes primarily in glomeruli]). In these instances, "and/or" has been used.

When sodium hexafluorosilicate (500 mg; 2.66 mmol) was applied to the skin of adult rabbits, mild irritation occurred. When applied to the eyes (100 mg; 0.532 mmol), severe irritation was observed; following a four-second rinse, the effect was still severe (RTECS, 1997).

Sodium hexafluorosilicate poisoning in domestic animals from the ingestion of bait which had not been disposed of after use (13 cases for cattle, 11 for sheep, and 1 each for horse, pigeon, and concentrate for sheep) resulted in drowsiness, constipation, loss of appetite, paresis of the rumen, severe abdominal pain, and diarrhea. Sheep also exhibited grinding of the teeth (an indication of pain) and frothing at the mouth in most cases of lethal poisoning, while the horse also had bradycardia. In an acute study in which sheep were orally administered technical sodium hexafluorosilicate (25, 50, 200, 1500, and 2000 mg/kg; 0.13, 0.27, 1.06, 7.976, and 10.63 mmol/kg) via stomach tube, the animals exhibited similar symptoms. In addition, with the two highest doses, falling down (after 1.5 hours), congested conjunctiva, forced and labored breathing, fever, and increased respiration and heart rates were observed. Animals died 6 days after administration of 200 mg/kg and 2.5 hours after administration of 2000 mg/kg (Egyed and Shlosberg, 1975). When a dairy herd of 600 animals was acutely poisoned from railcar contamination of feed, 95% of the animals had decreased neuromuscular transmission. The poisoning, which resembled calcium depletion, was effectively treated with calcium gluconate intravenously (HSDB, 2000b [original source was not cited]).

Fluorosilicic Acid

In rats orally given fluorosilicic acid (430 mg/kg; 2.98 mmol/kg), somnolence and/or general depressed activity was observed (RTECS, 2000). Other rat studies with fluorosilicic acid (single oral doses of 215, 464, 1000, and 2100 mg/kg [1.49, 3.22, 6.939, and 14.57 mmol/kg]) led to its classification as "moderately toxic" (Rhone-Poulenc, Inc., 1971). Percutaneous administration of the compound (amounts not provided) in rats, guinea pigs, and pigs resulted in continuously spreading necrosis in the deeper regions of injured skin. Hypocellular necrosis, consisting of sharp leukocyte demarcations, and edema up to the subcutis were also observed (Alhassan and Zink, 1982; cited by HSDB, 2000a). In rabbits, it was corrosive to the skin (0.5 mL [4 mol] for 1, 24, or 72 hours) and eyes (0.1 mL [0.8 mol] instilled into left eye) (Rhone-Poulenc Inc., 1971).

9.1.4 Short-term and Subchronic Exposure

No data were available.

9.1.5 Chronic Exposure

No data were available.

9.1.6 Synergistic/Antagonistic Effects

Fluoride, administered in the form of sodium hexafluorosilicate, had a strong affinity for calcium and magnesium. When orally given to sheep via a stomach tube at doses of 25, 50, 200, 1500, and 2000 mg/kg, increased changes in serum calcium and magnesium levels were observed at the two highest doses within 30 minutes after dose administration. At 200 mg/kg, recovery of both levels occurred after five days. With the 1500 mg/kg dose group, changes in phosphorus and sugar levels in whole blood were also significantly increased (16% [of pretreatment levels] at 1.5 hours to 146% at 2.5 hours for phosphorus; 300% to 374%, respectively, for sugar levels) (Egyed and Shlosberg, 1975).

9.1.7 Cytotoxicity
No data were available.

9.2 Reproductive and Teratological Effects
No data were available.

9.3 Carcinogenicity
No studies with sodium hexafluorosilicate or fluorosilicic acid were available. IARC (1987) concluded that there was inadequate evidence for carcinogenicity to humans and to animals for inorganic fluorides used in drinking water.

9.4 Initiation/Promotion Studies
No data were available.

9.5 Anticarcinogenicity
No data were available.

9.6 Genotoxicity
Sodium hexafluorosilicate was negative in the Salmonella/microsome test (concentrations up to 3600 g/plate, –S9) and the micronucleus test on mouse bone marrow (37.2 mg/kg; 0.198 mmol/kg) (Gocke et al., 1981). The compound (0.25 mM; 47 g/mL) did not induce sex-linked recessive lethal mutations in *Drosophila* (Gocke et al., 1981; IARC, 1987). In the *Bacillus subtilis* rec-assay system, sodium hexafluorosilicate (0.001-10 M; 188 g/mL-1.9 g/mL) also gave negative results (Kada et al., 1980; Kanematsu et al., 1980).

9.7 Cogenotoxicity
No data were available.

9.8 Antigenotoxicity
No data were available.

9.9 Other Data
Within one week after beginning work in a foam rubber plant, a 23-year-old man exhibited skin lesions consisting of "diffuse, poorly delineated, erythematous plaques with lichenoid papules and large pustules" on his arms, wrists, thighs, and trunk. Although scratch and patch tests with sodium hexafluorosilicate (2% aqueous) were negative, animal testing showed the compound to be a pustulogen. When rabbits received topical application of a 1, 5, 10, and 25% solution of sodium hexafluorosilicate in petroleum, pustules occurred on normal skin only with the high concentration, while all concentrations produced pustules on stabbed skin (Dooms-Goossens et al., 1985).

10.0 Structure-Activity Relationships
At levels of 14-16 ppm fluorine, sodium fluoride, sodium hexafluorosilicate, and cryolite (Na_3AlF_6) had the same extent of chronic fluorine intoxication in rats (De Eds and Thomas, 1933-1934; cited by McClure, 1950). At 40 and 80 ppm, the chronic toxicity (observations on growth rate, fecundity, mortality, tooth development, pathology, and disease) of barium fluorosilicate and cryolite in rats was "substantially the same as that of sodium fluoride for the same fluorine content" (Smyth and Smyth, 1932; cited by McClure, 1950). At 14 ppm fluorine,

ammonium fluoride, potassium fluoride, barium fluorosilicate, potassium fluorosilicate, and sodium fluorosilicate exhibited the same acute toxicity as sodium fluoride in the animals (Smith and Leverton, 1934; cited by McClure, 1950).

In a comparative study of absorption and excretion of fluorine in rats fed sodium fluoride, calcium fluoride, and sodium hexafluorosilicate, the percent fluorine retained was the same for the two sodium compounds (Kick et al., 1935 [see Section 9.1.2 for details regarding sodium hexafluorosilicate]). Several experiments on growing rats orally given 5, 10, 15, 25, and 50 ppm fluorine as sodium fluoride or sodium hexafluorosilicate for 90-100 days found no differences in the quantity of fluorine deposited and the contents of ash, calcium, and phosphorus in the incisor teeth, molar teeth, mandibles, and femurs. Furthermore, there were no differences in the percent of ingested fluorine retained in the body, and a combination of sodium silicate (15 ppm silicon) with sodium fluoride (25 ppm fluorine) did not affect the amount of fluorine deposited. The growth rate was normal in all rats (McClure, 1950).

In a separate study, litters of female weanling Osborne-Mendel rats were given 50 ppm fluorine as sodium fluoride or ammonium fluorosilicate in drinking water for 99 days. The cariostatic effect was similar for the two compounds i.e., both inhibited caries to the same extent. There were no differences in the amounts of fluorine and ash deposited in the molars, incisors, mandibles, and femurs. There were no differences in growth rate and in the production of incisor striations (Zipkin and McClure, 1954).

11.0 Online Databases and Secondary References

11.1 Online Databases

Chemical Information System Files
SANSS (Structure and Nomenclature Search System)
TSCAINV (Toxic Substances Control Act Inventory)
TSCATS (Toxic Substances Control Act Test Submissions)

National Library of Medicine Databases
EMIC and EMICBACK (Environmental Mutagen Information Center)

STN International Files

AGRICOLA	EMBASE	NTIS
BIOSIS	HSDB	PROMT
CA	LIFESCI	Registry
CABA	MEDLINE	RTECS
CANCERLIT	NIOSHTIC	TOXLINE

TOXLINE includes the following subfiles:

Toxicity Bibliography	TOXBIB
International Labor Office	CIS
Hazardous Materials Technical Center	HMTC
Environmental Mutagen Information Center File	EMIC
Environmental Teratology Information Center File (continued after 1989 by DART)	ETIC
Toxicology Document and Data Depository	NTIS
Toxicological Research Projects	CRISP
NIOSHTIC[a]	NIOSH
Pesticides Abstracts	PESTAB
Poisonous Plants Bibliography	PPBIB
Aneuploidy	ANEUPL
Epidemiology Information System	EPIDEM
Toxic Substances Control Act Test Submissions	TSCATS
Toxicological Aspects of Environmental Health	BIOSIS
International Pharmaceutical Abstracts	IPA
Federal Research in Progress	FEDRIP
Developmental and Reproductive Toxicology	DART

In-House Databases
CPI Electronic Publishing Federal Databases on CD
Current Contents on Diskette[a]
The Merck Index, 1996, on CD-ROM

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Acknowledgements

Support to the National Toxicology Program for the preparation of Sodium Hexafluorosilicate [CASRN 16893-85-9] and Fluorosilicic Acid [CASRN 16961-83-4] Review of Toxicological Literature was provided by Integrated Laboratory Systems, Inc., through NIEHS Contract Number N01-ES-65402. Contributors included: Karen E. Haneke, M.S. (Principal Investigator); Bonnie L. Carson, M.S. (Co-Principal Investigator); and Claudine A. Gregorio, M.A.

Appendix: Units and Abbreviations

°C = degrees Celsius

µg/L = microgram(s) per liter

µg/m^3 = microgram(s) per cubic meter

µg/mL = microgram(s) per milliliter

µM = micromolar

ACGIH = American Conference of Governmental Industrial Hygienists

AOAC = Association of Official Analytical Chemists

AWWA = American Water Works Association

bw = body weight

C.P. = Commercially Pure

CSDS = Colorado Springs Dental Society

EPA = Environmental Protection Agency

F = female(s)

FIFRA = Federal Insecticide, Fungicide, and Rodenticide Act

g = gram(s)

g/mL = gram(s) per milliliter

h = hour(s)

HSDB = Hazardous Substances Data Bank

IARC = International Agency for Research on Cancer

i.p. = intraperitoneal(ly)

kg = kilogram(s)

L = liter(s)

LC_{50} = lethal concentration for 50% of test animals

LC_{Lo} = lethal concentration low

LD_{50} = lethal dose for 50% of test animals

LD_{Lo} = lethal dose low

M = male(s)

MAL = Maximum Allowable Level

MCL = Maximum Contaminant Level

MUL = maximum use level

mg/kg = milligram(s) per kilogram

mg/m^3 = milligram(s) per cubic meter

mg/mL = milligram(s) per milliliter

min = minute(s)

mL/kg = milliliter(s) per kilogram

mm = millimeter(s)

mM = millimolar

mmol = millimole(s)

mmol/kg = millimoles per kilogram

mo = month(s)

mol = mole(s)

mol. wt. = molecular weight

NICNAS = National Industrial Chemicals Notification and Assessment Scheme

NIOSH = National Institute for Occupational Safety and Health

NSF = National Sanitation Foundation

NOES = National Occupational Exposure Survey

NOHS = National Occupational Hazard Survey

n.p. = not provided

OSHA = Occupational Safety and Health Administration

PEL = permissible exposure limit

ppb = parts per billion

ppm = parts per million

p.o. = peroral(ly), *per os*

REL = relative exposure limit

RTECS = Registry of Toxic Effects of Chemical Substances

s.c. = subcutaneous(ly)

SMCL = Secondary Maximum Contaminant Level

STEL = short-term exposure limit

TD_{Lo} = toxic dose low

TLV = threshold limit value

TSCA = Toxic Substances Control Act

TWA = time-weighted average

wk = week(s)

yr = year(s)

185612

Moore-Love, Karla

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Friday, August 31, 2012 3:28 PM
To: Moore-Love, Karla
Subject: Water Fluoridation

Another message that I would like place into public record regarding water fluoridation (I sent this directly to the city council members on August 18). Thank you.

Kathleen Courian-Sanchez

If the civil rights issues of mass medicating (against the public's will) isn't enough of a reason not to fluoridate, maybe information from the CDC about the health risks will be.

There is no way to regulate how much fluoride individuals ingest, since it's added and found in grocery foods, beverages, prepared foods, dental hygiene products etc. Over fluoridation could result from also adding it to the water source.

The pro-fluoridation advocates claim they are looking out for the children. Here is what the CDC says:

"Based on the data evaluated in this risk assessment, EPA concludes that ***it is likely*** that some children 8 and younger are exposed to too much fluoride at least occasionally while their teeth are forming because of their high fluid intake relative to their body weight and/or because of high natural levels of fluoride in their local drinking water. The impact of overexposure on the risk for pitting of enamel in one or more teeth depends on the frequency and duration of the overexposures."

This is from the CDC (Center for Disease Control) website under Fluoridation Fact Sheet http://www.cdc.gov/fluoridation/fact_sheets/cwf_qa...

This is from the CDC website under Fluoridation Fact Sheet http://www.cdc.gov/fluoridation/fact_sheets/cwf_qa.htm#17

What are the adverse health effects of excessive fluoride exposure?

Children under age 8 and younger exposed to excessive amounts of fluoride have an increased chance of developing pits in the tooth enamel. Excessive consumption of fluoride over a lifetime may increase the likelihood of bone fractures, and may result in effects on bone leading to pain and tenderness, a condition called skeletal fluorosis. Severe skeletal fluorosis is a rare condition in the United States. The EPA exposure analysis suggests that the effects on bone in adults are of greatest concern for those living in areas with high natural background levels of fluoride and favoring beverages, such as tea, that are high in fluoride.

185612

Are children or adults exposed to too much fluoride?

Based on the data evaluated in this risk assessment, EPA concludes that it is likely that some children 8 and younger are exposed to too much fluoride at least occasionally while their teeth are forming because of their high fluid intake relative to their body weight and/or because of high natural levels of fluoride in their local drinking water. The impact of overexposure on the risk for pitting of enamel in one or more teeth depends on the frequency and duration of the overexposures.

Who is at risk from excessive fluoride exposure?

Children are most likely to be affected by excessive exposure to fluoride because it impacts teeth while they are still in formative phases (birth through formation of the wisdom teeth). EPA's risk assessment compared age-specific exposure estimates to the fluoride dose associated with pitted enamel and found that children 8 and younger may be those most at risk. The maximum dose that is protective for children will also protect adults from long-term effects on bone.

What are the effects of excess levels of fluoride and why are they different for children and adults different?

Adults exposed to excessive consumption of fluoride over a lifetime may have increased likelihood of bone fractures, and may result in effects on bone leading to pain and tenderness. For effects to teeth, children are most likely to be affected by excessive exposure to fluoride because it impacts teeth while they are still in formative phases. Children aged 8 years and younger exposed to excessive amounts of fluoride have an increased chance of developing pits in the tooth enamel, along with a range of cosmetic effects to teeth. For prevention of tooth decay, the beneficial effects of fluoride extend throughout the life span.

185612

Moore-Love, Karla

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Friday, August 31, 2012 3:26 PM
To: Moore-Love, Karla
Subject: Water Fluoridation

I would like this placed into public record for the water fluoridation issue. I sent this email directly to the city council members on August 17, so it just needs to be part of the record. Thank you.

Dear Mayor Adams and City Council members,

I have read that one of the arguments that the pro-fluorde coalition is using, is water fluoridation will help those in poverty receive some sort of dental benefit, specifically children. Infants are not supposed to ingest fluoride, so the poor (who advocates claim will be helped), must either buy bottle water or purchase a reverse osmosis system (hundreds of dollars) to remove the fluoride, tap attachment and brita style filters don't remove fluoride. This would not eliminate the exposure to fluoride (which is absorbed through the skin) and other toxic chemicals and metals released as part of the fluoridation process while bathing.

There is not any way to measure how much fluoride the public would ingest since if the entire system is fluoridated, fluoride would be in every item that requires water, including restaurants/coffee shops and the like. This doesn't take into account fluoride naturally occurring or added to grocery foods and fluoridated toothpaste. Even if one could clean the water at home, they would not have any control outside of the home. The most vulnerable to over exposure are infants, children, the ill and elderly.

As stated on Encyclopedia of Children's Health the maximum amount infants and children can receive without poisoning is as follows.

"There is some disagreement as to whether fluoride is an essential mineral in humans. Relatively low levels of fluoride (20–80 mg) are considered toxic. Less than 1 gm of fluoride can be fatal to a small child. The Food and Nutrition Board of the Institute of Medicine of the U.S. National Institutes of Health has determined an adequate daily intake of fluoride and a maximal safe daily intake, based on a child's weight:

- infants up to six months of age or about 16 lb (7 kg): 0.01 mg is adequate and 0.7 mg is the maximum safe intake
- infants between six and 12 months or about 20 lb (9 kg): 0.5 mg and 0.9 mg
- children one to three years of age or about 29 lb (13 kg): 0.7 mg and 1.3 mg
- children aged four to seven or about 48 lb (22 kg): 1.0 mg and 2.0 mg
- children aged nine to 13 or about 88 lb (40 kg): 2.0 mg and 10 mg
- children aged 14 to 19 or about 125–166 lb (57–76 kg): 3.0 mg and 10 mg"

Precautions

A child easily can swallow enough fluoridated toothpaste to exceed the recommended daily amount of fluoride by four-fold. A medium-sized toothpaste tube contains enough fluoride to make a child seriously ill or even cause death should the child eat it all. The flavorings added to

toothpaste to encourage children to brush also can entice them into eating it. Toothpaste always should be stored out of the reach of children.

Side effects

As little as four to eight mg of fluoride ingested daily while the tooth enamel is forming can cause mottling—often called fluorosis—in children under age eight. Fluorosis only affects children whose teeth are still developing within the gums. Symptoms of fluorosis include:

- teeth discoloration
- white or brown chalky spots
- brown enamel
- pitting of teeth
- excessive wear on the enamel
- structural damage to the enamel
- brittle teeth in which the enamel breaks easily

The extent of mottling depends on the following:

- when the excess fluoride is ingested
- how much is ingested
- over how long of a period it is ingested
- how much of the fluoride reaches the enamel

Fluorosis in children appears as of 2004 to be increasing; however, it is not known whether this is from water fluoridation, the excessive use of fluoride-containing products, or both.

Prevention

No type of fluoridation can replace good dental care and hygiene, which are necessary for preventing gum disease as well as tooth decay. Weekly rinsing with a fluoride mouthwash can reduce decay in children by 20–40 percent. Fluoride supplements can reduce decay

- Any fluoride above the naturally occurring (usually trace) amounts is unnecessary and possibly toxic.
- An individual dose of fluoride cannot be controlled because it depends on the amount of fluoridated water that a child ingests each day.
- Fluoridation of public water systems deprives people of freedom-of-choice as to what they ingest.
- People can choose from a variety of fluoride-containing products that are just as effective as fluoridated water.
- Where the water is not fluoridated, schools often provide fluoridation programs, and parents can choose whether their children participate.
- Although fluoride may help prevent decay, good diet, good **oral hygiene** , and regular dental cleanings can be just as effective.
- Fluoride can be toxic and even fatal at higher doses.
- The difference between the amount of fluoride that is beneficial and the amount that can cause mottling is only two to four-fold.
- People vary in their susceptibility to the effects of fluoride.
- It is impossible to determine how much fluoride a child is ingesting because of the numerous sources of fluoride in food and products; a child may regularly drink water from sources with different fluoride levels.
- Fluoride is ineffective against gum disease, the major destroyer of teeth.

185612

I hope, at the very least, you put this issue on the ballot and not make this choice for your constitutes who have replied (through their votes) 4 times in the past, that we don't want fluoride in our water!!!

Sincerely,

Kathleen Sanchez

Moore-Love, Karla

185612

From: Rebecca Groebner [mail@change.org]
Sent: Friday, August 31, 2012 3:23 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Rebecca Groebner
Portland, Oregon

185612

Moore-Love, Karla

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Friday, August 31, 2012 3:18 PM
To: Moore-Love, Karla
Subject: Water Fluoridation

I would like this to be part of the public record regarding water fluoridation. I sent this message to the city council on August 16, and have yet to receive a response or any evidence of the safety of water fluoridation, and now I know why. There is no study that shows that it is safe. But there have been many studies that show the detrimental affects on human health.

Kathleen Courian-Sanchez

Dear Mayor and City Council members,

I would like to request that a detailed document be given to the public that shows evidence that the fluoride proposed to be added to the water system is safe for drinking and bathing.

I have been informed that there are instances where municipalities have demanded that fluoride companies give legal written and documented assurances that the substance will do exactly what is promised with no adverse health effects to the entire population which will be fluoridated. The result being that none of the fluoride companies that were contacted and challenged in such a manner responded with the requested documents or bids to supply fluoride. In fact, the majority never responded at all.

Considering that this proposal is a mass distribution of medication, the least that can be done is documentation of its safety for all who will ingest it through their drinking and bath water.

Sincerely,

Kathleen Sanchez
Concerned N. Portland mom

185612

Moore-Love, Karla

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Friday, August 31, 2012 3:16 PM
To: Moore-Love, Karla
Subject: Water Fluoridation

Please make this message part of the public record regarding water fluoridation in Portland. I have already sent this to the city council members.

Thank you.

Kathleen Courian-Sanchez

Dear Mayor and City Council members,

I recently wrote to you about my concerns over the prospect of fluoride being added to the Portland city water system. We are vehemently against this practice, especially in light of recent scientific studies indicating profound and lasting damage to children's teeth, bones and neurological health and development.

There are several studies, accessible online, if you would like to see for yourselves. I'm including two, published on the Environmental Health Perspectives, a peer-reviewed open access journal published by the National Institute of Environmental Health Sciences website. They have many other studies indicating the adverse affects of fluoride (even in low doses).

http://ehp03.niehs.nih.gov/article/fetchArticle.action?articleURI=info%3Adoi%2F10.1289%2Fehp.1104912
http://ehp03.niehs.nih.gov/article/fetchArticle.action?articleURI=info%3Adoi%2F10.1289%2Fehp.11375

I don't believe the city council should be making this decision for the public. It should be voted upon by the public.

Thank you.

Sincerely,

Kathleen Sanchez

185612

Moore-Love, Karla

From: Sally Frese [mail@change.org]
Sent: Friday, August 31, 2012 2:59 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Its my decision if I want to take it. It shouldn't be forced on me.

Sally Frese
Portland, Oregon

185612

Moore-Love, Karla

From: Diane Tweten [mail@change.org]
Sent: Friday, August 31, 2012 2:55 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Being healthy is important-if this was ever a good idea, the knowledge says that it isn't!!!

Diane Tweten
Portland, Oregon

Moore-Love, Karla

185612

From: Martha Wheeler [mail@change.org]
Sent: Friday, August 31, 2012 2:43 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Martha Wheeler
Portland, Oregon

Moore-Love, Karla

185612

From: Charlie White [mail@change.org]
Sent: Friday, August 31, 2012 2:40 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

My good health is dependent on minimizing my bodily intake of chemicals. Fluoride is a waste by-product of the phosphate fertilizer industry which will add other pollutants such as lead and arsenic. Fluoride is a Biocide!

Charlie White
Portland, Oregon

Moore-Love, Karla

185612

From: Louis W & Martha E Wheeler [billmarty@q.com]
Sent: Friday, August 31, 2012 2:38 PM
To: Moore-Love, Karla
Subject: Fluoridation

Mayor Adams and City Council members,

My husband and I are very opposed to having fluoride added to our water.

It would be much better to see that all children of our county have access to dental care and learn a life long ability to take care of their teeth. Putting fluoride in the water doe's not teach them to take care of their teeth.

We have a son who grew up in Portland and who is almost 40 years old. He has never had a cavity.

We have voted on this issue in the past. It was voted dow. Why are you trying to push through what we don't need and don't want?

Bill and Martha Wheeler

Moore-Love, Karla

185612

From: Victor Salinas [victor@latnet.org]

Sent: Friday, August 31, 2012 2:13 PM

To: Moore-Love, Karla; Adams, Mayor; Leonard, Randy; Commissioner Saltzman; Commissioner Fish; Commissioner Fritz

Cc: Carmen Rubio; Jackeline Luna

Subject: Everyone Deserves Healthy Teeth Coalition

Attachments: Emilia Balderas Testimony.doc; Healthy Teeth Testimonies - Latino Network Latino Community Advisory Committee.pdf; Lillian Delgadillo Testimony.doc; Lourdes Montes Testimony.doc; Martha Escobedo Testimony.doc; Oscar Lara Testimony.doc; Pedro Sandoval Prieto Testimony.doc

Dear Mayor Adams and Commissioners,

Latino Network is a proud member of the Everyone Deserves Healthy Teeth coalition and recognizes the tremendous health benefit that water fluoridation provides our community. Latino Network's Comite de Lideres Latinos (Latino Community Advisory Committee) would like to provide these written testimonies supporting the Everyone Deserves Healthy Teeth Coalition in favor of water fluoridation.

Best regards,

Victor

--

LatinoNetwork

Victor M. Salinas
Bilingual Coordinator of Líderes
Civic Engagement and Leadership
Latino Network
Left Bank Building
240 N Broadway
Suite 214
Portland OR 97227
victor@latnet.org
503-283-6881

Mi nombre es Emilia Balderas, estoy representando a Latino Network. Soy parte de el comité de lideres Latino, para ayudar la comunidad.

Para mi esto es muy importante por que mis hijos van hacer afectados si no se cambia el nivel de fluoruro en el agua.

Yo tengo la experiencia personalmente porque soy originalmente de México y cada vez que tengo una visita a el dentista me comenta el dentista que mis dientes están muy fuertes, mas que el resto de la comunidad de Portland. Me preguntan que se nota que no soy originalmente de aquí.

Les doy las gracias por escuchar mi opinión.

Emilia Balderas

18561-2

~~Lugar~~

Hola mi nombre es Lourdes Montes
formo parte del comited de latinos networth
y lideres verdes yo estoy de acuerdo en que
le pongan floruro en el agua porque
hay mucha gente de bajos recursos y
no pueden pagar para ir al dentista como
yo soy de bajos recursos y el tengo mucho
tiempo que no voy a un dentista
porque es muy cara y yo pienso
que con el floruro ayudaria de mucho
para todos las personas como yo

Espero hice haga esas floroxaciones
en el agua

PORTLAND, OREGON 24 DE JULIO DEL 2012.

ESTIMADOS PRESENTANTES DE LA COALISION.
(EVERYONE DESERVES HEALTHY TEETH COALITION)

MI NOMBRE ES PEDRO SANDOVAL PRIETO MIEMBRO DEL COMITE DE LIDERES LATINOS DE LA RED LATINA.

Yo PIENSO QUE EL PROYECTO DE LA FLUORACION EN LA COMUNIDAD SERA UN GRAN IMPACTO. PORQUE ASI YA NO TENDREMOS DE TENER TANTO DINERO PARA EL CUIDADO DE DIENTES. ESTO ES PORQUE EN LA COMUNIDAD HAY MUCHA ENFERMEDAD DE DIENTES (CARIES) Y ESTO AFECTA MUCHO A MUCHOS NINOS DESDE PEQUENOS Y PERSONAS ADULTAS.

NOS GUSTARIA SER PARTE DE DE PROYECTOS DE SU COALISION PARA EL MEJORAMIENTO DE NUESTRA COMUNIDAD.

SIN EMBARGO SABEMOS QUE ES UN PROYECTO MUY CONCRETO PERO SABEMOS QUE CON AYUDA COMUNITARIA SABREMOS QUE PODEMOS TRIUNFAR Y TENER MENOS COSTE DENTALES. GRACIAS POR SU APOYO A NUESTRA COMUNIDAD.

SINCERAMENTE.
PEDRO SANDOVAL PRIETO.
MIEMBRO DE COMITE DE LIDERES LATINOS

185612

Mi nombre es Emilia Balderas, Estoy representando a Latino Network. Soy parte de el Comite de lideres Latino, para ayudar la Comunidad.

Para mi esto es muy importante por que mis hijos van hacer afectados si no se cambia el nivel de fluoruro en el agua.

Yo tengo la experiencia personalmente Por que Soy originalmente de Mexico y cada ves que tengo una visita a el dentista. me comenta el dentista que mis dientes estan muy fuertes, mas que el resto de la Comunidad de portland. me preguntan que se nota que no Soy originalmente de aqui.

Les doy las gracias por escuchar mi opinion.

Emilia Balderas

185612

Ola [illegible] [illegible] Martha [illegible]

conosco varias personas que [illegible]
[illegible] [illegible] los [illegible] no
an [illegible] [illegible] que son muy costosos.

yo creo que la comunidad
[illegible] mas informacion
[illegible] [illegible] de [illegible]
[illegible]. y tomar [illegible]
o seriedad para los comisionados
de la ciudad de portland OR.
queremos una sociedad
[illegible] mas fuertes y [illegible]
poniendo mas Fluoruro a los
[illegible] de agua.

[illegible] a quien corresponda.

Mi Nombre es Lillian Delgadillo y Soy
Lider del programa Latino NET
y estoy Dando Mi Apollo y asiendo la peticion
para mas Fondos para que Nuestra Comunidad
tenga Mejores oportunidad para el Cuidado
Dental para Mejorar el Ambiente del Agua
Para irradicar Tantas enfermedades ya que los
mas Afectados son los mas Pobre esto Afecta
A Nuestros Niños y a Nuestros Ancianos
Pido por Favor el Apollo de Nuestro
Comicionados para Tan Generosa Causa

AT Lillian Delgadillo

Hello my name is Oscar and I am part of Latino Network and I would like to give my testomony for the impartance of flouride in the water. Every time I show up to a dentist they can identify right away the strong fleet on me. They know I am not born in Oregon and they always tell me that I do not have a lot of issues with my teeth. As part of this community in the state of Oregon and planning raising my Kids it would be helpful to make some changes in the water I understand it may have some costs but in the long run it will help to save money. Why risk an entire population when we can impove it just by spending some extra cents.

Sincerely

Oscar Lara

185612

Mi nombre es Lillian Delgadillo y soy líder del programa Latino Network y estoy dando mi apoyo y haciendo la peticiones para mas Fondos para que nuestra comunidad Tenga mejores oportunidad para el cuidado Dental Para mejoran el Ambiente del agua para irradicar Tantas enfermedades ya que los mas afectados son los mas pobre esto Afecta a nuestros niños y a nuestros ancianos pido por favor el Apoyó de nuestro comisionados para tan Generosa causa

Lillian Delgadillo

Hola,
Mi nombre es Lourdes Montes formo parte del comité de Latinos Network y lideres verdes yo estoy de acuerdo en que le pongan fluoruro en el agua porque hay mucha gente de bajos recursos y no pueden pagar para ir al dentista come yo soy de bajos recursos y el tengo mucho tiempo que no voy a un dentista porque es muy cara y yo pienso que con el fluoruro ayudaría de mucho para todas los personas como yo.
Espero hice haga esas flororaciones en el agua.

Hola me llamo Martha Escobedo.
Conozco varias personas que necesitan implantes dentales los cuales no han podido pagar porque son muy costosos. Yo creo que le comunidad necesita mas información acerca de recursos dentales y tomar uno conciencia o seriedad para los comisionados de le ciudad de Portland OR que queremos una sociedad con dientes mas fuertes y saludables. Poniendo mas fluoruro a las fuentes de agua.
Muchos gracias a quien corresponda.

18561 2

Hello,
My name is Oscar and I am part of the Latino Network and I would like to give my testimony for the importance of fluoride in the water. Every time I show up to a dentist they can identify right away the strong teeth on me. They know I am not born in Oregon and they always tell me that I do not have a lot of issues with my teeth. As part of this community, in the state of Oregon, and planning on raising my kids it would be helpful to make some changes in the water. I understand it may have some costs but in the long run it will help to save money. Why risk an entire population when we can improve it just by spending some extra cents?

Sincerely,
Oscar Lara

185612

Portland, Oregon 24 de Julio Del 2012.

Estimados Presentantes de la coalición (Everyone Deserves Healthy Teeth Coalition).

Mi nombre es Pedro Sandoval Prieto miembro del comité de lideres Latinos de la red Latina. Yo pienso que es proyecto de la fluoración en la comunidad será un gran Impacto. Porque asi ya no tendremos de tender tanto dinero para el cuidado de dientes. Esto es porque en la comunidad hay mucha enfermedad de dientes (caries) y esto afecta mucho a muchos niñitos desde pequeñitos y personas adultas.

Nos gustaría ser parte de proyectos de su coalición para el mejoramiento de nuestra comunidad.

Sin Embargo sabemos que es un proyecto muy concreto pero sabemos que con ayuda comunitaria sabremos que podemos triunfar y tener menos costos dentales. Gracias por su apoyo a nuestra comunidad.

Sinceramente:

Pedro Sandoval Prieto
Miembro de Comité De Lideres Latinos

Moore-Love, Karla

From: Kurt Ferre [kferre51@comcast.net]
Sent: Friday, August 31, 2012 1:29 PM
To: Moore-Love, Karla
Subject: Written Testimony in Support for Fluoridation

Public Heath and Whether Citizens Should Vote on E

Public Health Issue

Mayor Adams, Members of the City Council,

My name is Kurt Ferré and I am a retired general dentist who has resided in NE Portland since M 1980. For the last 13 years I have actively promoted water fluoridation as the FOUNDATION of sound dental public health policy. I currently am the President of the Board of Directors and volu Dental Director of the Friends of Creston Children's Dental Clinic, located inside Creston School Portland.

The opponents of fluoridation has raised the issue, very loudly, that they should be able vote on v put in our water. They state that they should be able to make a personal choice decision on wheth fluoride is added to the Bull Run water system, and that you, the City Council, do not have the rig take that choice away from them.

I completely disagree. There have been many public health measures that leaders, both in public and elected officials have made without a citizen vote. Just to name a few: vaccinations, chlorin water, seat belts, air bags, Vitamin A and D to milk, and folic acid to all bread products. Recentl decision was made to lower speed limits on many streets in Portland to 20 miles per hour was ma without a public vote, and I suspect there are more than a few who disagree with this decision.

In the last few years since the economic crisis, there have been some city councils around the cou who have discontinued their water fluoridation program, primarily to save dollars in their cash-str budgets. I believe that this is "Penny wise, pound foolish".

As an example, this occurred in Pinellas County, FL, Juneau, AK, and Fairbanks, AK. Again, the cessation was by a City/County Council vote, and there was NOT a vote put to the citizens in thos affected communities.

Do you think that the opponents to fluoridation screamed out to these elected officials that their d should have been put to a vote of the citizenry? Not a single "peep" out of any of their collective mouths.

In the late 1960's Seattle went through a very "hot button" fluoridation campaign just as we are nc witnessing here in Portland. Today, when I visit my daughter who lives in fluoridated Seattle, I s when we go out to dinner in a restaurant and watch patrons drink fluoridated tap water, stand in li Starbuck's to buy their lattes made with fluoridated water, and drink one of many wonderful micr that have been brewed with fluoridated water.....and no one has a second thought about it.

Many people in Portland have moved from other regions of the United States, most that have very rates of fluoridation. Seattle is no different. If one relocated to Seattle today, they would have a

185612

they can drink the fluoridated tap water as provided by the City of Seattle, or they could choose not to drink the water. I believe that Portlanders can make the same choice when our water finally becomes fluoridated, and all citizens served by Bull Run water system will enjoy the public health benefit of fluoridated water.

In closing, I would like to share with you a quote by former Vice-President of the United States, Hubert H. Humphrey:

It was once said that the moral test of government is how that government treats those who are in the dawn of life, the children; those who are in the twilight of life, the elderly; and those who are in the shadows of life, the sick, the needy and the handicapped.

You have an opportunity to leave a legacy to current and future generations in Portland. I urge you to vote, "Yes" to fluoridate the Bull Run water system.

Sincerely,

Kurt Ferré DDS

3215 NE U.S. Grant Place
Portland, OR 97212

503-282-8131

Moore-Love, Karla

185612

From: Raeanne Lewman [mail@change.org]
Sent: Friday, August 31, 2012 12:35 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Raeanne Lewman
Portland, Oregon

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

8/31/2012

Moore-Love, Karla

185612

From: Ezra Hunt [mail@change.org]
Sent: Friday, August 31, 2012 11:26 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Ezra Hunt
portland, Oregon

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

Moore-Love, Karla

185612

From: Shawn Mccloud [mail@change.org]
Sent: Friday, August 31, 2012 10:18 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Thank you,

Coalition of Concerned Citizens

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Sincerely,

Shawn Mccloud
Portland, Oregon

185612

Moore-Love, Karla

From: Shawn Mccloud [mail@change.org]
Sent: Friday, August 31, 2012 10:18 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Shawn Mccloud
Portland, Oregon

185612

Moore-Love, Karla

From: Alan Haggard [mail@change.org]
Sent: Friday, August 31, 2012 12:16 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Alan Haggard
San Diego, California

Moore-Love, Karla 185612

From: Cindhi Gleason [mail@change.org]
Sent: Thursday, August 30, 2012 11:53 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Cindhi Gleason
portland, Oregon

Moore-Love, Karla

185612

From: Gracie Campbell [mail@change.org]
Sent: Thursday, August 30, 2012 10:18 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Gracie Campbell
Portland, Oregon

Moore-Love, Karla

185612

From: GREG GIAMETTA [mail@change.org]
Sent: Thursday, August 30, 2012 9:23 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

'Topical' fluoride 'only 'should be 'prescribed' for younger adults. Full grown adults should not be made to ingest fluoride against their wishes.

GREG GIAMETTA
FORT PIERCE, Florida

Moore-Love, Karla

185612

From: Cathy Frost [mail@change.org]
Sent: Thursday, August 30, 2012 9:08 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Cathy Frost
Portland, Oregon

Moore-Love, Karla

185612

From: Joe hoffman [mail@change.org]
Sent: Thursday, August 30, 2012 5:30 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Joe hoffman
Portland, Oregon

185612

Moore-Love, Karla

From: Sarah Brooks [mail@change.org]
Sent: Thursday, August 30, 2012 4:43 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Sarah Brooks
Portland, Oregon

Moore-Love, Karla

185612

From: Sarah Seiffert [mail@change.org]
Sent: Thursday, August 30, 2012 1:01 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Sarah Seiffert
Portland, Oregon

Moore-Love, Karla

185612

From: Jeff Seiffert [mail@change.org]
Sent: Thursday, August 30, 2012 12:16 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Jeff Seiffert
Milwaukie, Oregon

Moore-Love, Karla

185612

From: Sabrina Harle [mail@change.org]
Sent: Thursday, August 30, 2012 11:51 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Because fluoride belong ON our teeth, not IN our bodies. And I also oppose MASS mandated government medicating through our water supply.

Sabrina Harle
Portland, Oregon

Moore-Love, Karla

185612

From: John Richard Young [mail@change.org]
Sent: Thursday, August 30, 2012 11:24 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

John Richard Young
norristown, Pennsylvania

185612

Moore-Love, Karla

From: Paul Prior [mail@change.org]
Sent: Thursday, August 30, 2012 11:14 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

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There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Personal Freedom to not have medication forced on anyone

Paul Prior
Portland, Oregon

185612

Parsons, Susan

From: Beth Hahn [bethha@comcast.net]
Sent: Friday, August 31, 2012 6:22 AM
To: Moore-Love, Karla
Subject: Proposed Fluoridation of Portland Water
Attachments: Letter to PDX City Council (15).doc

Karla,

I am sending you a copy of a letter I wrote to the mayor, city commissioners, and city attorney regarding fluoridation of Portland water. I was told you need to be cc'd for it to be public record. I want this to be public record. How do I ensure that happens?

Thank you
Beth Hahn

185612

August 29, 2012

Dear Mr. Van Dyke, Mayor Adams, and Commissioners Fritz, Fish, Leonard, and Saltzman,

I am writing to express my strong opposition to City Council's plans to impose mandatory water fluoridation in Portland.

I have multiple chemical sensitivity (MCS). MCS is considered a disability under federal law (Fair Housing Act and Americans with Disabilities Act). It is critical for people with MCS to avoid exposure to chemicals. I am hypersensitive to fluoride and have been told by my doctors to avoid it. I am not alone; many people are hypersensitive to fluoride.

The American Academy of Environmental Medicine explains MCS as "a very real chronic medical condition that has been only slowly gaining the public recognition it deserves. Recent estimates suggest that chemical sensitivity, that is, hyper-reactivity to various environmental agents (also known as incitants or triggers), **may afflict something like 10-15% of the American population**." Fluoride-containing water is considered an incitant.
http://www.aaemonline.org/chemicalsensitivitypost.html

The American Academy of Environmental Medicine is an international association of physicians and scientists in the forefront of treating people with chemical sensitivity and researching the relationship between health and the environment. In their position paper on fluoride, they state that "fluoride is a known neurotoxin and carcinogen even at the levels added to public water supplies," and that they support "banning the addition of fluoride or products containing fluoride to public water supplies."
http://www.aaemonline.org/images/FluorideResolution.pdf

I am appealing to you to reconsider your plan to fluoridate Portland's water. I am a teacher. I expend a tremendous amount of time, energy, and money to stay healthy enough to remain a functional and productive member of this community in spite of having chemical sensitivity. This will likely be impossible if you implement this, given my known hypersensitivity to fluoride, and that there is no way to avoid exposure if fluoride is present in our water.

I currently have a water filtration system which removes chlorine, lead, and disinfection by-products. I also have a shower filter which removes chlorine. I am a distributor for a company that makes water filtration systems, and I am well informed about the available technology. Currently, there is no filter on the market that will remove fluoride. It is necessary to use reverse osmosis (RO) to remove fluoride. RO is expensive, both initially and to maintain, is slow, may not produce as much water as needed at a given time, and wastes a great deal of water. Three to five gallons of waste water are flushed down the drain for every gallon of filtered water produced. Another problem is that RO only reduces fluoride 93.9%. For someone hypersensitive to fluoride, this is not enough. I do

not consider this a good option, but it is the only one that will address fluoride removal for those of us who cannot tolerate it.
The only other option is bottled water, which is also very expensive, especially if I have to use it for cooking as well as for drinking. Chemically sensitive people need to avoid any kind of water storage container that may leach. If we use bottled water, it needs to be stored in glass or in plastic certified by NSF to be free of any detectable leaching. In addition, I already pay for city water; I should not have to pay again to obtain water that is safe for me to drink.

Additionally, this would only address drinking water. My shower filter removes chlorine, but there is currently no technology on the market that will deal with fluoride in water for bathing. Skin rashes from bathing in fluoridated water are a problem for sensitive individuals. I have extremely sensitive skin, and since I was a child, have had to be very careful what my skin comes in contact with to avoid skin rashes.

An attorney has advised me that there may be potential liability issues when you force a chemical on people that they cannot tolerate. There are Portlanders who will suffer serious health consequences - people whose physicians have advised them to avoid fluoride - who will have no way to opt out of fluoride exposure. All we can do is minimize our exposure with reverse osmosis or bottled water. For those of us with chemical sensitivity, merely minimizing exposure to a substance to which we are hypersensitive is not sufficient to avoid serious health consequences. It is necessary to eliminate exposure. This will not be possible if you proceed with your plan to fluoridate our water.

Since chemical sensitivity is considered a disability under the Americans with Disabilities Act, is the city prepared to provide alternatives such as bottled water to accommodate me, and others like me, who cannot tolerate this chemical?

It is easy for those who want fluoride to obtain it. It is impossible for those of us who are sensitive to it to avoid exposure if it is in our water. I urge you to look at a bigger picture and consider some of the resources I have included in this statement to ensure the health of 100% of our city's citizens. Thank you for your consideration.

185612

Moore-Love, Karla

From: Satya Ambrose [mail@change.org]
Sent: Thursday, August 30, 2012 5:36 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

It's inappropriate to give everyone a substance that has potential harm .

Satya Ambrose
damascus, Oregon

Moore-Love, Karla

185612

From: Dustin Toney [mail@change.org]
Sent: Wednesday, August 29, 2012 10:57 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Dustin Toney
Lake Oswego, Oregon

Moore-Love, Karla

185612

From: Gwen Snyder [mail@change.org]
Sent: Wednesday, August 29, 2012 9:49 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Gwen Snyder
Portland, Oregon

Moore-Love, Karla

185612

From: Alison Chandler [mail@change.org]
Sent: Wednesday, August 29, 2012 8:20 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I don't want to be forced to ingest something that I do NOT need. I take care of my teeth just fine.

Alison Chandler
Portland, Oregon

Moore-Love, Karla

185612

From: elisa nutzmann [mail@change.org]
Sent: Wednesday, August 29, 2012 6:47 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Not having fluoride in our water is one of the main reasons I love living here, I DO NOT WANT this POISON in my water!

elisa nutzmann
Portland , Oregon

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

Moore-Love, Karla

185612

From: Noel Goodman [mail@change.org]
Sent: Wednesday, August 29, 2012 5:41 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

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Sincerely,

Fluoride May Be Neurotoxic in Kids
Megan Brooks
Authors and Disclosures
Print This
Share

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August 23, 2012 — Exposure to high levels of fluoride in drinking water may harm children's neurodevelopment, according to a systematic review and metaanalysis of published studies.

Philippe Grandjean, MD, PhD, of the Department of Environmental Health, Harvard School of Public Health, Boston, Massachusetts, and colleagues found that children living in highly fluoridated areas had significantly lower IQ scores than their peers living in areas of low fluoridation.

"The results suggest that fluoride may be a developmental neurotoxicant that affects brain development at exposures much below those that can cause toxicity in adults," they write.

The study was published online July 20 in Environmental Health Perspectives.

Lower IQ

A 2006 report from the US National Research Council (NRC) concluded that harmful effects of high fluoride concentrations in drinking water may be of concern and that additional research is warranted.

Acute fluoride poisoning is known to cause neurotoxicity in adults, and negative effects on memory and learning have been reported in rodent studies, but little is known about fluoride's effect on children's neurodevelopment.

Dr. Grandjean and colleagues at Harvard and China Medical University in Shenyang, China, combined 27 studies published over 22 years and found strong indications that fluoride can adversely affect cognitive development in children.

Most of the epidemiological studies available on this topic come from China, where fluoride generally occurs in drinking water as a natural contaminant. The concentration depends on local geological conditions.

"In many rural communities in China, populations with high exposure to fluoride in local drinking water sources live in close proximity to populations without high exposure," the authors note.

The studies they included in the metaanalysis had high exposures and reference exposures to fluoride in drinking water. Endpoints of the studies were IQ scores or related cognitive function measures, with means and variances for the 2 exposure groups.

In a random-effects model, the standardized weighted mean difference in IQ score between exposed and reference populations was -0.45 (95% confidence interval [CI], -0.56 to -0.35).

"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," the authors write.

The investigators acknowledge that the estimated decrease in average IQ associated with fluoride exposure seen in the analysis may seem small and may be within the measurement error of IQ testing. However, they note that "as research on other neurotoxicants has shown, a shift to the left of IQ distributions in a population will have substantial impacts, especially among those in the high and low ranges of the IQ distribution."

Cause for Concern

Commenting on the findings for Medscape Medical News, John R. Bucher, PhD, associate director of the National

Toxicology Program, National Institute of Environmental Health Sciences in Research Triangle Park, North Carolina, said the findings are "relatively consistent, to the extent that they can be compared, resulting in about a half of a point IQ decrease in fluoridated areas or what one would consider high fluoridated areas vs low to normal fluoridated areas."

"The fact that there are so many studies and they are all showing something that is pretty much in the same direction is a little concerning. The authors appropriately call for this to be looked at further. If there are ways to repeat this kind of analysis or other situations that can be studied that are analogous to this, that would be helpful," he added.

Dr. Bucher, who was not involved in the research, also praised the study's methodology, which he described as "very good."

The authors, he said, "have explained in fairly good detail in the manuscript that when you do a metaanalysis, you don't necessarily compensate for all of the deficiencies that the individual studies have."

He also noted that most of the studies were done in China "and reported in Chinese journals using the standards that were required at the time for reporting sufficiency and things of that nature, so there are some cautions that were appropriately put into the manuscript."

Nonetheless, Dr. Bucher said, "the data really sort of speak for themselves."

Call for More Research

Dr. Grandjean and colleagues believe the analysis is a good first step in evaluating the potential risk of fluoride on neurodevelopment.

"For the first time, we have been able to do a comprehensive metaanalysis that has the potential for helping us plan better studies," Anna L. Choi, research scientist in the Department of Environmental Health at Harvard School of Public Health and the study's first author, said in a statement.

In future studies, "we want to make sure that cognitive development is considered as a possible target for fluoride toxicity," she added.

The children included in the analyzed studies were up to 14 years of age, but the investigators speculate that any toxic effect on brain development may have happened earlier, and that the brain may not be fully capable of compensating for the toxicity.

"Fluoride seems to fit in with lead, mercury, and other poisons that cause chemical brain drain," Dr. Grandjean noted in the statement. "The effect of each toxicant may seem small, but the combined damage on a population scale can be serious, especially because the brain power of the next generation is crucial to all of us."

The authors note this analysis cannot be used to derive an exposure limit, because actual exposures of individual children are not known, and misclassification of children in both the high- and low-exposure groups may have occurred.

As reported previously by Medscape Medical News, the US Department of Health and Human Services announced in 2011 a proposal to lower fluoride in drinking water to 0.7 mg/L from the currently recommended range of 0.7 to 1.2 mg/L. The US Environmental Protection Agency will consider whether it should lower the maximum amount of fluoride allowed in drinking water, which currently is set at 4.0 mg/L.

Noel Goodman

Beaverto, Oregon

185612

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

8/30/2012

Moore-Love, Karla

185612

From: Ameyalli Ayala [mail@change.org]
Sent: Wednesday, August 29, 2012 4:31 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Because I drink tap water.

Ameyalli Ayala
Portland, Oregon

Moore-Love, Karla

185612

From: evans martin [evans7martin@gmail.com]
Sent: Wednesday, August 29, 2012 2:25 PM
To: Moore-Love, Karla
Cc: Bischoff, Debbie; DeKlyen, Dana; Deane, Kate; Howard N. Kenyon; MERRI E COMPTON; Rey Espana
Subject: Cully Main Street (Cully Commercial Corridor) and Local Street Plan August 2012 draft

Mayor Sam Adams
Commissioner Nick Fish
Commissioner Amanda Fritz
Commissioner Randy Leonard
Commissioner Dan Saltzman

Cully Main Street (Cully Commercial Corridor) and Local Street Plan August 2012 Draft Comments

First, I would like to begin by thanking you for coming to the Cully neighborhood for this important hearing. We really appreciate your interest and continued support of the Cully Neighborhood.

Comments:

I was fortunate enough to be able to participate in the Project Working Group for the Cully Main Street (Cully Commercial Corridor) and Local Street Plan with Debbie Bischoff and Denver Igarta and have been very impressed with the level of rigor and attention the City has given these efforts. It was a good process that lasted several months that gave the community and local organizations the opportunity to collaborate with the City and to provide feedback necessary to create the plan we have before us today. Personally, I am excited to see these changes come to my neighborhood.

Street Plan

I would like to take this opportunity to say how much I appreciate Mr. Igarta and his team's commitment to the Cully neighborhood and drive to create innovative and exciting solutions that respond to the needs of the neighborhood as evidenced by current residential usage patterns. I believe that these solutions will do much to enhance the safety and livability for Cully residents. My only concern is the expense of these improvements and the City's expectation that the residents will shoulder the financial burden.

I am grateful that the City has worked to get these costs lowered significantly, but fear that it is still not low enough. Many Cully residents are already stretched to their financial limit and taking on the expense of street improvements is simply not feasible, especially when one takes into consideration other City programs such as the two Neighborhood Prosperity Initiatives in the Cully neighborhood that will depend upon the support of the residents with combined annual fund raising needs to be approximately $120,000 annually.

It does not seem to be in the spirit of this great city to allow only those who can afford it to receive the benefit of street improvements. It would be fantastic if the city and community could continue to collaborate towards finding an equitable solution.

Gentrification and Displacement Resolution 185612

There is an opportunity to do things differently here in Cully with regard to gentrification and displacement and while we are on a steep learning curve, all parties are aware of the high stakes and the importance of providing equitable opportunities for all without causing displacement. The resolution provides a strong armature from which the community with support from the City can continue to build an inclusive and resilient neighborhood for the benefit of all.

Speaking personally based upon my experiences as a board member of the Cully Blvd Alliance, the Cully Blvd Neighborhood Prosperity Initiative group, I have been impressed with the City's commitment towards addressing the issues of gentrification and displacement. While the process is new and imperfect, the collaboration between BPS, PDC, NAYA, Verde and Hacienda, Cully Association of Neighbors, Central Northeast Neighbors has helped to put the Cully Blvd Alliance in a position to build towards becoming an inclusive and equitable voice of the community that is able to help shape the neighborhood in accordance to our resident's hopes and dreams rather than being at the mercy of the developer-led model of the past. I believe that we are off to a good start and am excited to see these relationships between the many stakeholders begin to develop and deepen as we begin to cultivate trust.

In my opinion, these zoning changes are key in transforming Cully Blvd into a commercial corridor that serves the needs of the neighborhood while providing much needed economic opportunities for our neighbors. By looking at the model that Verde has created with Thomas Cully Park we can imagine all of the improvements, from design to construction to maintenance and ultimately to the use of the space by the business as an entirely local effort that is in celebration and support of the rich diversity of the Cully neighborhood. We are one of the most diverse census tracts in Oregon, let this district reflect that quality and keep these dollars here for the benefit of our community.

To me, it seems that in order to accomplish all of these dreams, Cully will need the continued support of the City agencies as well as the support of the community organizations and the DCL's. This is going to be a challenge for years and years to come and in order to achieve this great equitable vision Cully will need continued recources and technical support from the City to in order to accomplish this.

If battling the forces of gentrification and displacement were easy, someone would have surely come up with a solution to the problem by now. Based upon the current commitment of scarce yet greatly needed resources from the City I am hopeful that Cully will continue to receive those resources for years to come as we all work towards creating an equitable community.

Thank you very much for these opportunities as well as your time and consideration.

Best regards,

Evans Martin

6325 NE Roselawn St.
Portland, OR 97218
503.784.14
evans7martin@gmail.com

Moore-Love, Karla

185612

From: Karla Walker [mail@change.org]
Sent: Wednesday, August 29, 2012 1:55 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Karla Walker
Beaverton, Oregon

Moore-Love, Karla

185612

From: Hilary Forrest [mail@change.org]
Sent: Wednesday, August 29, 2012 1:24 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Hilary Forrest
Portland, Oregon

Moore-Love, Karla

185612

From: Kyle McNicholas [mail@change.org]
Sent: Wednesday, August 29, 2012 1:19 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I don't want to poison my family, friends, or anyone for the matter

Kyle McNicholas
Portland, Oregon

Moore-Love, Karla

185612

From: Amanda Aplet [mail@change.org]
Sent: Wednesday, August 29, 2012 12:48 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Amanda Aplet
Kelso, Washington

185612

Moore-Love, Karla

From: Debra Parker [mail@change.org]
Sent: Wednesday, August 29, 2012 12:28 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

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There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

This is a personal health decision that I don't want anyonelse making for me and my family.

Debra Parker
Tigard, Oregon

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Moore-Love, Karla

From: tara@fluoridealert.org
Sent: Wednesday, August 29, 2012 1:38 PM
To: Moore-Love, Karla
Subject: Fluoridation in Portland--Letter for Public Record
Attachments: Letter to City Council--Portland.pdf

29 August 2012

Dear Mayor Adams and Esteemed Council Members,

I was troubled to learn that your decision to fluoridate Portland's municipal water supply may not be based on the will of your constituents, but rather on the empty rhetoric and endorsements of others. Please consider doing your own research on this matter before making such an important decision for the entire population of Portland. Here I present a number of important points to consider, with complete references (including links) so that you may read the science for yourself.

Proponents of artificial fluoridation often espouse the notion that fluoridation is a "safe and effective" method of promoting oral health. Yet water fluoridation has never been proven safe or effective for the entire populace.

1. Endorsements do not take the place of science

Proponents of artificial fluoridation often support their position by referencing the endorsement of agencies such as the CDC. However, recently obtained Freedom of Information documents reveal that since the 1970s, CDC's support of the fluoridation program has been completely controlled by dental health professionals—thus, no CDC toxicologists, minority health professionals, experts in diabetes, etc. have ever had input into this matter (Stockin, 2011). While dentists know a lot about teeth, they should not be responsible for reviewing safety issues related to the entire body.

2. Water fluoridation is NOT effective

Proponents of artificial fluoridation commonly claim that comprehensive assessments by government agencies continue to reaffirm the benefits of adding fluoride at "optimal" levels to the water supply. However, several of these often cited reviews either found no benefit of fluoridation, or found adverse effects at the levels used in artificial fluoridation.

For example, the UK's York Review was able to identify very few studies of even moderate quality concerning the efficacy of water fluoridation, and the results were mixed (McDonagh et al., 2000). The authors of this review stated the following (Centre for Reviews and Dissemination, 2003):

> "We are concerned about the continuing misinterpretations of the evidence and think it is important that decision makers are aware of what the review really found."
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> "We were unable to discover any reliable good-quality evidence in the

fluoridation literature world-wide."

"The evidence about reducing inequalities in dental health was of poor quality, contradictory and unreliable."

In fact, there has never been a single randomized controlled trial—the gold standard of medical research—that demonstrates the effectiveness of water fluoridation. Data from the World Health Organization show that tooth decay has declined at the same general rate in all industrialized western countries, irrespective of water fluoridation status (FAN, 2012).

Furthermore, an exhaustive review of the scientific literature by the International Academy of Oral Medicine and Toxicology (IAOMT, 2003) concluded:

"...there is no discernible health benefit derived from ingested fluoride and that the preponderance of evidence shows that ingested fluoride in dosages now prevalent in public exposures aggravates existing illnesses, and causes a greater incidence of adverse health effects. Ingested fluoride is hereby recognized as unsafe, and ineffective for the purposes of reducing tooth decay." (p.2)

Even the Centers for Disease Control and Prevention (CDC), a staunch supporter of fluoridation, acknowledges a lack of significant benefit from ingested fluoride (CDC, 2001):

"The prevalence of dental caries in a population is not inversely related to the concentration of fluoride in enamel, and a higher concentration of enamel fluoride is not necessarily more efficacious in preventing dental caries." (p.4)

"The concentration of fluoride in ductal saliva, as it is secreted from the salivary glands, is low—approximately 0.016 parts per million (ppm) in areas where drinking water is fluoridated and 0.006 ppm in nonfluoridated areas. This concentration of fluoride is not likely to affect cariogenic activity." (p. 3)

3. Water fluoridation is NOT safe for everyone

Approximately 90% of water fluoridation schemes use silicofluorides, industrial-grade byproducts of the phosphate fertilizer industry, *which have never been tested for safety* (National Research Council, 2006). These chemicals can contain a number of undesirable contaminants (e.g. arsenic), and have actually been found to increase the level of lead in children's blood (Masters et al., 2000).

Recent data from the Centers for Disease Control and Prevention (CDC) reveal that nearly 41% of American adolescents ages 12-15 now have some form of dental fluorosis (Beltrán-Aguilar et al., 2010), an outwardly visible indication of fluoride overexposure and toxicity. Fluoride is already ubiquitous in our lives. It is present in dental products, our food supply (including via pesticide residues), air, soil, pharmaceuticals, pesticides, etc. If so many of our children are *already getting too much fluoride*, it makes no sense to add even more to our drinking water—especially when the dose cannot be controlled, and no medical evaluations are conducted to determine adverse effects.

In addition to causing dental fluorosis, numerous other associations between fluoride and adverse health effects have been well documented in the scientific literature—including damage to the brain, bones, thyroid, and kidneys—even at the levels of fluoride currently being consumed by many Americans.

3.1. Fluoride is an Endocrine Disruptor

According to the National Research Council (2006), fluoride is "an endocrine disruptor in the broad sense of altering normal endocrine function or response" (p.266).

> "The major endocrine effects of fluoride exposures reported in humans include elevated TSH with altered concentrations of T3 and T4, increased calcitonin activity, increased PTH activity, secondary hyperparathyroidism, impaired glucose tolerance, and possible effects on timing of sexual maturity. ... several of the effects are associated with average or typical fluoride intakes of 0.05-0.1 mg/kg/day (0.03 with iodine deficiency)" (NRC, 2006, p.260)

This range of fluoride intakes (0.05-0.1 mg/kg/day) is not only typical for most Americans, but is actually exceeded by many. Most, if not all, infants consuming formula made with "optimally" fluoridated tap water will exceed the fluoride level found to induce changes in the endocrine system. In fact, according to EPA's recent Exposure Analysis (EPA, 2010b), virtually all children will reach or exceed this detrimental range of fluoride intake *on a daily basis*.

Fluoride also has the potential to increase blood glucose levels, decrease insulin mRNA and its secretion from pancreatic beta-cells, and induce oxidative stress. The natural progression of type 2 diabetes is from normal glucose tolerance, to impaired glucose tolerance ("prediabetes"), to overt type 2 diabetes. Both insulin resistance and beta-cell dysfunction are thought to be involved in this transition. Thus, fluoride may contribute to glucotoxicity and thereby play a role in the etiology of impaired glucose tolerance and type 2 diabetes. According to the National Research Council (2006, p.260):

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3.2. Harm to fetuses and infants

Fetuses and infants are disproportionately impacted by fluoride's toxicity. These are the smallest and most vulnerable of our population, yet they are being completely ignored by public health officials when making decisions about fluoridation. Surprisingly, even the U.S. Environmental Protection Agency (EPA) refuses to consider the impacts of fluoride on fetuses and infants ages 0-6 months in their recent analyses (EPA, 2010a, 2010b). As fluoride readily crosses the placenta (Opydo-Szymaczek, 2007), the maternal burden of fluoride passes to her unborn child. This fluoride can then cross the blood-brain barrier and significantly alter brain development (Du et al., 2008; He et al., 2008; Yu et al., 2008).

Once born, breast-fed infants are offered some protection, as mother's milk is extremely low in fluoride—only 0.004 parts per million (NRC, 2006). However, infants fed formula made with fluoridated tap water will receive at least 175 times more fluoride than a breast-fed baby. As early as 2006, the CDC and the American Dental Association (ADA) have recommended that infant formula be mixed with low- or no fluoride water to reduce the risk of developing dental fluorosis. Yet parents are not being warned of this recommendation.

As the most susceptible subpopulations, the potential for long-term, irreparable damage to developing fetuses and infants must be seriously considered, and should extend beyond just their teeth—to their tiny brains and bodies. Due to their small size and rapid development, fetuses and infants are at an elevated risk for suffering from the toxic and often irreversible effects of fluoride.

Over 100 animal studies show an association between fluoride and brain damage (Connett et al., 2010), and 33 additional studies now link fluoride exposure with reduced IQ in children (FAN, 2012b). These results

have been observed even within the range of fluoride levels currently experienced by most Americans. Based on this accumulating body of research, several prestigious reviews—including a report by the National Research Council (2006) and a meta-analysis published by a team of Harvard scientists (Choi et al., 2012)—have raised red flags about the potential for low levels of fluoride to harm brain development in some members of the population. As noted by Dr. Philippe Grandjean, an environmental health scientist at the Harvard School of Public Health and co-author of the meta-analysis:

> "Fluoride seems to fit in with lead, mercury, and other poisons that cause chemical brain drain. The effect of each toxicant may seem small, but the combined damage on a population scale can be serious, especially because the brain power of the next generation is crucial to all of us." (Harvard, 2012)

3.3. *Harm to minorities and low-income families*

Minorities and low-income families are disproportionately impacted by fluoride's toxicity. Unfortunately, these groups are also being completely ignored by the agencies that promote or allow continuation of the fluoridation program in the United States, including the U.S. Department of Health and Human Services (HHS), the CDC, and the EPA. Each of these agencies has failed to consider racial, ethnic, and socioeconomic differences when determining the level of fluoride considered "safe" for all Americans to consume in drinking water—on a daily basis and over a lifetime.

African American and low-income children consume significantly more total fluids and plain water, and thus receive more fluoride from drinking water, than white or higher-income children (Sohn et al., 2001). In addition, African Americans are less likely to breastfeed than most other racial groups (CDC, 2007), meaning that their children are more likely to be over-exposed to fluoride during this sensitive developmental period. Formula-fed children of low-income families are also disproportionately affected, as parents cannot afford to purchase expensive filtration systems or bottled water to provide low- or no fluoride water for their precious infants.

African Americans and Hispanics have been shown to be at an increased risk of developing dental fluorosis, and have a higher risk of suffering from the more severe forms of this condition (Martinez-Mier, 2010; Beltrán-Aguilar et al., 2005). Fluoride's toxicity is exacerbated by inadequate nutrition, diabetes, and kidney dysfunction, which are more prevalent among minorities than whites. The risk of diabetes is 66% higher among Hispanics and 77% higher among African Americans compared with white adults (HHS, 2011). Hispanics are nearly twice as likely, and African Americans are four times more likely to suffer from renal failure than are whites (CDC, 2010).

Thus the fluoridation of Portland's water supply is an Environmental Justice issue (US Executive Order, 1994). In 2011, the League of United Latin American Citizens (LULAC) passed a resolution opposing water fluoridation, on the grounds that it is a Civil Rights violation (LULAC, 2011). Several well known Civil Rights leaders have called for an end to water fluoridation, citing disproportionate harm to poor citizens and black families (Minority News, 2011). In a letter to legislators, Civil Rights leader Dr. Gerald Durley states:

> "I support the holding of Fluoridegate hearings at the state and national level so we can learn why we haven't been openly told that fluorides build up in the body over time (and) why our government agencies haven't told the black community openly that fluorides disproportionately harm black Americans..."

Furthermore, potential legal actions related to fluoride—based on personal injury, negligent misrepresentation, failure to warn, medical or dental malpractice, consumer fraud, and civil rights violations—were described in an American Association for Justice Newsletter for trial lawyers (Nidel, 2011). According to this newsletter:

> "A partial list of defendants includes manufacturers of fluoridation chemicals, oral care product

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manufacturers, retailers, water utilities, medical and dental practitioners, and professional associations."

3.4. Carcinogenicity of fluoride

It deserves special mention that the status of fluoride as a carcinogen has not yet been resolved. Epidemiological data suggest a link between fluoride exposure from community water fluoridation and an increased risk of osteosarcoma in boys (Bassin et al., 2006), an assertion that has not been refuted (FAN, 2011). Additionally, the 2006 NRC report recommended further research on a possible effect of fluoride on bladder cancer, and that in vivo human genotoxicity studies should be conducted (NRC, 2006).

3.5. Harm to the environment

Numerous adverse effects of fluoride on the environment have been documented, even within the concentrations produced by artificial water fluoridation. The official policy of the Sierra Club regarding fluoride in drinking water includes the following statements (Sierra Club, 2008):

> "There are now, however, valid concerns regarding the potential adverse impact of fluoridation on the environment, wildlife, and human health."
>
> "Therefore, the Sierra Club believes that communities should have the option to reject mandatory fluoridation of their water supplies."
>
> "To protect sensitive populations, and because safer strategies and methods for preventing tooth decay are now available, we recommend that these safer alternatives be made available and promoted."

The sources of fluoride today are numerous. Fluoride is consumed via drinking water and other beverages, foods, dental products, air, soil, pharmaceuticals, and pesticides. Of these, the largest intake is from drinking water (NRC, 2006). For communities that artificially fluoridate their water supplies, this is the easiest source to remove in order to protect the entire population. The practice of artificial water **fluoridation must not be allowed in Portland**, in order to protect *all* of the population.

Thank you for taking the time to read our comments and concerns. I sincerely hope that you will consider the profound implications that your decision has on *all* of your citizens—especially those most vulnerable to fluoride's toxicity.

Kind Regards,

Tara Blank, PhD
Science and Health Officer
Fluoride Action Network

www.fluoridealert.org

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Minorities and low-income families are disproportionately impacted by fluoride's toxicity. Unfortunately, these groups are also being completely ignored by the agencies

that promote or allow continuation of the fluoridation program in the United States, including the U.S. Department of Health and Human Services (HHS), the CDC, and the EPA. Each of these agencies has failed to consider racial, ethnic, and socioeconomic differences when determining the level of fluoride considered "safe" for all Americans to consume in drinking water—on a daily basis and over a lifetime.

African American and low-income children consume significantly more total fluids and plain water, and thus receive more fluoride from drinking water, than white or higher-income children (Sohn et al., 2001). In addition, African Americans are less likely to breastfeed than most other racial groups (CDC, 2007), meaning that their children are more likely to be over-exposed to fluoride during this sensitive developmental period. Formula-fed children of low-income families are also disproportionately affected, as parents cannot afford to purchase expensive filtration systems or bottled water to provide low- or no fluoride water for their precious infants.

African Americans and Hispanics have been shown to be at an increased risk of developing dental fluorosis, and have a higher risk of suffering from the more severe forms of this condition (Martinez-Mier, 2010; Beltrán-Aguilar et al., 2005). Fluoride's toxicity is exacerbated by inadequate nutrition, diabetes, and kidney dysfunction, which are more prevalent among minorities than whites. The risk of diabetes is 66% higher among Hispanics and 77% higher among African Americans compared with white adults (HHS, 2011). Hispanics are nearly twice as likely, and African Americans are four times more likely to suffer from renal failure than are whites (CDC, 2010).

Thus the fluoridation of Portland's water supply is an Environmental Justice issue (US Executive Order, 1994). In 2011, the League of United Latin American Citizens (LULAC) passed a resolution opposing water fluoridation, on the grounds that it is a Civil Rights violation (LULAC, 2011). Several well known Civil Rights leaders have called for an end to water fluoridation, citing disproportionate harm to poor citizens and black families (Minority News, 2011). In a letter to legislators, Civil Rights leader Dr. Gerald Durley states:

> "I support the holding of Fluoridegate hearings at the state and national level so we can learn why we haven't been openly told that fluorides build up in the body over time (and) why our government agencies haven't told the black community openly that fluorides disproportionately harm black Americans…"

Furthermore, potential legal actions related to fluoride—based on personal injury, negligent misrepresentation, failure to warn, medical or dental malpractice, consumer fraud, and civil rights violations—were described in an American Association for Justice Newsletter for trial lawyers (Nidel, 2011). According to this newsletter:

> "A partial list of defendants includes manufacturers of fluoridation chemicals, oral care product manufacturers, retailers, water utilities, medical and dental practitioners, and professional associations."

3.4. Carcinogenicity of fluoride

It deserves special mention that the status of fluoride as a carcinogen has not yet been resolved. Epidemiological data suggest a link between fluoride exposure from community water fluoridation and an increased risk of osteosarcoma in boys (Bassin et al., 2006), an assertion that has not been refuted (FAN, 2011). Additionally, the 2006 NRC report recommended further research on a possible effect of fluoride on bladder cancer, and that in vivo human genotoxicity studies should be conducted (NRC, 2006).

3.5. Harm to the environment

Numerous adverse effects of fluoride on the environment have been documented, even within the concentrations produced by artificial water fluoridation. The official policy of the Sierra Club regarding fluoride in drinking water includes the following statements (Sierra Club, 2008):

> "There are now, however, valid concerns regarding the potential adverse impact of fluoridation on the environment, wildlife, and human health."
>
> "Therefore, the Sierra Club believes that communities should have the option to reject mandatory fluoridation of their water supplies."
>
> "To protect sensitive populations, and because safer strategies and methods for preventing tooth decay are now available, we recommend that these safer alternatives be made available and promoted."

The sources of fluoride today are numerous. Fluoride is consumed via drinking water and other beverages, foods, dental products, air, soil, pharmaceuticals, and pesticides. Of these, the largest intake is from drinking water (NRC, 2006). For communities that artificially fluoridate their water supplies, this is the easiest source to remove in order to protect the entire population. The practice of artificial water **fluoridation must not be allowed in Portland**, in order to protect *all* of the population.

Thank you for taking the time to read our comments and concerns. I sincerely hope that you will consider the profound implications that your decision has on *all* of your citizens—especially those most vulnerable to fluoride's toxicity.

Kind Regards,

Tara Blank, PhD
Science and Health Officer
Fluoride Action Network

www.fluoridealert.org

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185612

Moore-Love, Karla

From: lauree carlsen [mail@change.org]
Sent: Wednesday, August 29, 2012 10:48 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

lauree carlsen
happy valley,, Oregon

185612

Moore-Love, Karla

From: Bruce Sprando [mail@change.org]
Sent: Wednesday, August 29, 2012 1:34 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I think the general public gets lied to and deceived too often, and I think Kellie Barnes is on to something here. The water supply for the city you live in IS A BIG DEAL!

Bruce Sprando
gresham, Oregon

Moore-Love, Karla

185612

From: Julie MIKALSON [mail@change.org]
Sent: Wednesday, August 29, 2012 1:19 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Julie MIKALSON
PORTLAND, Oregon

185612

Moore-Love, Karla

From: Honorino Lora [mail@change.org]
Sent: Wednesday, August 29, 2012 1:10 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Honorino Lora
Tigard, Oregon

185612

Moore-Love, Karla

From: Mike Brady [mail@change.org]
Sent: Tuesday, August 28, 2012 11:05 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I don't think it's rite for our government to make such a decision like this without the approval of the voters.

Mike Brady
Gresham, Oregon

Moore-Love, Karla

185612

From: David Nelson [mail@change.org]
Sent: Tuesday, August 28, 2012 10:16 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

We don't need to add more chemicals to our water supply. Dental problems are now verified to be directly related to American's no longer eating healthy saturated fats in their diet. NAZI Germany added fluoride to their water supply and it had nothing to do with people's teeth.

David Nelson
Gresham, Oregon

Moore-Love, Karla

185612

From: Bob McCulloch [mail@change.org]
Sent: Tuesday, August 28, 2012 10:09 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Bob McCulloch
Portland, Oregon

Moore-Love, Karla

185614

From: Steven L. Oewns [mail@change.org]
Sent: Tuesday, August 28, 2012 7:35 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

IF I AM GONNA GET SLOW-KILLED I WOULD VERY MUCH ENJOY HAVING SOME SAY IN THE MATTER.

Steven L. Oewns
Portland, Oregon

185612

Moore-Love, Karla

From: heather suhrbur [mail@change.org]
Sent: Tuesday, August 28, 2012 5:09 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

flouride is a dangerous pharmaceutical and it is not necessary to put in the water you get more than you need from a pea sized amount of toothpaste. Even toothpaste has a warning sign on it that if you swallow it to call poison control. Additionally, it does not prevent cavities instead it has been shown to cause flourosis in most 14 year old that were included in a study that shows that too much flouride causes flourosis of teeth and bones. In case you dont know what that means you should look it up. These children will have more brittle teeth and bones. That is not constitutional nor is it moral to force this upon the population who must use the water to cook, bathe and drink. Even if you have limits on how much ends up in a glass of water there are no studies to show what the limit is for breathing in when taking a hot shower or in how much

185612

builds up if you drink 8 plus glasses of water or more daily. There is no real science to support putting ~~it~~ in the water. Japanese Scientist found that flouridated water lowers the IQ by 14 points. No wonder the US students perform the way they do!!

heather suhrbur
portland, Oregon

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

Moore-Love, Karla

185612

From: Howard Shapiro [mail@change.org]
Sent: Tuesday, August 28, 2012 4:20 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Howard Shapiro
Portland, Oregon

Moore-Love, Karla

185612

From: Cynthia Christensen [mail@change.org]
Sent: Tuesday, August 28, 2012 3:54 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Cynthia Christensen
Vancouver, Washington

Moore-Love, Karla

185612

From: Susan Mather [mail@change.org]
Sent: Tuesday, August 28, 2012 3:48 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

As Naturopathic Physician I am very concerned about the use of drugs in the water. Parents have the option of free fluoridation in the public schools for their children. Older citizens can actually be harmed by the intake of fluoride. It is not for general consumption and should not be forced on the general public to consume.

Susan Mather
Portland, Oregon

Moore-Love, Karla

185612

From: Janette Novotny [mail@change.org]
Sent: Tuesday, August 28, 2012 3:06 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Janette Novotny
Portland, Oregon

18561 2

Moore-Love, Karla

From: Alice Shapiro [mail@change.org]
Sent: Tuesday, August 28, 2012 3:01 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I agree that the public has a right to know what is in their food and/or water supply.

Alice Shapiro
Portland, Oregon

18561 2

Moore-Love, Karla

From: David Schallberger [mail@change.org]
Sent: Tuesday, August 28, 2012 1:50 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Seems like a waste of money with little benefit.

David Schallberger
Portland, Oregon

18561 2

Moore-Love, Karla

From: Melynda Sipp [mail@change.org]
Sent: Tuesday, August 28, 2012 1:21 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Melynda Sipp
Portland, Oregon

Moore-Love, Karla

185612

From: Kathy Royce [mail@change.org]
Sent: Tuesday, August 28, 2012 1:17 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Kathy Royce
West Linn, Oregon

Moore-Love, Karla 185612

From: Vanessa Fritz [mail@change.org]
Sent: Tuesday, August 28, 2012 11:50 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Vanessa Fritz
Portland, Oregon

Moore-Love, Karla

185612

From: austin foster [mail@change.org]
Sent: Tuesday, August 28, 2012 11:27 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

austin foster
Lake Oswego, Oregon

Moore-Love, Karla

185612

From: Joanne Skirving [mail@change.org]
Sent: Tuesday, August 28, 2012 10:35 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Fluoride is toxic for some people and potentially dangerious for everyone. Topical applications give the benefit with much less risk. People need the full scientific evidence and should be able to vote on such an important issue.

Joanne Skirving
Portland, Oregon

Moore-Love, Karla

185612

From: Myra Himmelfarb [mail@change.org]
Sent: Tuesday, August 28, 2012 10:14 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

More research is needed in the use of flouride obtained not naturally but from toxic wastes, and I think any flouride is best applied topically and not internally, to anyone.

Myra Himmelfarb
Portland, Oregon

Moore-Love, Karla

185612

From: dizz locasto [mail@change.org]
Sent: Tuesday, August 28, 2012 9:56 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

dizz locasto
Portland, Oregon

Moore-Love, Karla

185612

From: Claire Andrews [mail@change.org]
Sent: Tuesday, August 28, 2012 8:20 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

To protect individual private rights, medical differences, aquatic life, poor children from unnecessary chemical burdens.

Claire Andrews
Tigard, Oregon

185612

Moore-Love, Karla

From: Shelley Siddans [mail@change.org]
Sent: Tuesday, August 28, 2012 7:33 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Shelley Siddans
Canby, Oregon

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

8/28/2012

Moore-Love, Karla

185612

From: J Marchant [mail@change.org]
Sent: Tuesday, August 28, 2012 6:36 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Water fluoridation causes more harm than good.

J Marchant
Oregon CIty, Oregon

185612

Moore-Love, Karla

From: Emily Cleek [mail@change.org]
Sent: Monday, August 27, 2012 10:08 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I recognize the intended health benefits of fluoride, but these can all be gained by purchasing inexpensive fluoride rinses that one does not have to ingest. I am concerned about not having a say in what is added to the water we drink, nor do I believe that the regulation of fluoridation programs nationwide has been held to a high standard of quality.

Emily Cleek
Portland, Oregon

Moore-Love, Karla

185612

From: Kate Patterson [mail@change.org]
Sent: Monday, August 27, 2012 10:04 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Kate Patterson
Portland, Oregon

Moore-Love, Karla

185612

From: Davida Gordon [mail@change.org]
Sent: Monday, August 27, 2012 9:08 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Flouride is poisonoius. why would I want to ingest it daily? Portlanders love their Bull run untouched, naturally filtered water. It has worked for over 100 years.

Davida Gordon
Portland, Oregon

Moore-Love, Karla

185612

From: Rylee Keys [mail@change.org]
Sent: Monday, August 27, 2012 8:20 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Keep your Fluoride out of my water!!! It's unnecessary and is damaging to my health!

Rylee Keys
Portland, Oregon

Moore-Love, Karla

185612

From: Audrey Metcalfe [mail@change.org]
Sent: Monday, August 27, 2012 7:24 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

We should be developing options that allow people the freedom to choose. This is a one- size-fits-all program and is inappropriate for a government to implement such a program. Also, it is not a public interest org. that initiated this "discussion" but rather a for profit org. No flouride in our water supply please. Audrey

Audrey Metcalfe
Portland, Oregon

Moore-Love, Karla

185612

From: Kylene Fickenscher [mail@change.org]
Sent: Monday, August 27, 2012 7:11 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I think it's important for the public to make a decision on this issue.

Kylene Fickenscher
Portland, Oregon

Note: this email was sent as part of a petition started on Change.org, viewable at http://www.change.org/petitions/petition-for-public-review-of-portland-water-supply-fluoridation. To respond, click here

Moore-Love, Karla

185612

From: Brittaney Califf [mail@change.org]
Sent: Monday, August 27, 2012 6:33 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I don't want to ingest fluoride.

Brittaney Califf
Portland, Oregon

Moore-Love, Karla

185612

From: Cedric Rougier [mail@change.org]
Sent: Monday, August 27, 2012 6:27 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Because I do not wish to have fluoride in my water. There is already enough in the environment and more recent studies shows it is health debilitating.

Cedric Rougier
Portland, Oregon

Moore-Love, Karla

185612

From: Travis Turnsen [mail@change.org]
Sent: Monday, August 27, 2012 5:42 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Travis Turnsen
Portland, Oregon

Moore-Love, Karla

185612

From: Juana Celia Djelal [mail@change.org]
Sent: Monday, August 27, 2012 5:16 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

http://www.fluoridealert.org/top-10-reasons-against-fluoride.aspx

Juana Celia Djelal
State College, Pennsylvania

Moore-Love, Karla

185612

From: Amanda Nelson
Sent: Monday, August 27, 2012 5:16 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Fluoride is a medicine and people should be given the choice as to wether they want to ingest it. Do not medicate the water supply!

Amanda Nelson, NTP
Portland, Oregon

Parsons, Susan

185612

From: Holly Spruance [hs@oeachoice.com]
Sent: Monday, August 27, 2012 10:18 AM
To: Moore-Love, Karla
Cc: jesse@upstreampublichealth.org
Subject: FW: Healthy Teeth
Attachments: Tooth Taxi recap- PDX, Friends of the Children 8/13/12

Hello Karla,
I had your e-mail wrong and will be forwarding you a copy of the e-mails I sent to the Mayor and Commissioners in support of Healthy Teeth.
Thanks and have a great day,
Holly

From: Holly Spruance [mailto:hs@oeachoice.com]
Sent: Monday, August 27, 2012 9:20 AM
To: mayorsam@portlandoregon.gov
Cc: Karla.love.moore@portlandoregon.gov
Subject: Healthy Teeth

Dear Mayor Adams,

OEA Choice Trust helped sponsor the Tooth Taxi back in 2008 because educators saw firsthand the negative effects poor oral health can have on a child. Educators see the pain students endure and how it disrupts their development and chances for success. Since the Tooth Taxi has been on the road some of the realities such as children trying to pull their own teeth because of the pain causes one to want to seek better solutions.
OEA Choice Trust has joined the Everyone Deserves Healthy Teeth Coalition and supports fluoride in Portland's water as part of the solution and as a safe, effective and affordable way to improve the dental health of children and families.

Please see the attached Tooth Taxi recap, it starts out with a story of a student here in Portland. Thank you for your support for healthy teeth!
Respectfully,
Holly Spruance
Director of Programs and Operations
OEA Choice Trust
503.620.3822 (Tigard)
503.799.9922 (cell)
800.452.0914 (toll free)
hs@oeachoice.com

Be part of our Journey to Wellness! Find out more about it at

www.oeachoice.com

185612

Parsons, Susan

From: Mary Daly [Mary.Daly@smileonoregon.org]
Sent: Friday, August 24, 2012 10:10 AM
To: ToothTaxiRecap
Subject: Tooth Taxi recap- PDX, Friends of the Children 8/13/12

Attachments: Decay before treatment 4.jpg; new teeth.JPG; TT reapair.jpg; TT at Friends of the Children.JPG; Dr. Mellum, pt, & K. Campbell.JPG; chipped front tooth.JPG; fixed chip.JPG; S.Longtin & Aimee Shaykin.JPG; pt, dr. chat.JPG


Decay before treatment 4.jpg (...


new teeth.JPG (24 KB)


TT reapair.jpg (31 KB)


TT at Friends of the Children....


Dr. Mellum, pt, & K. Campbell....


chipped front tooth.JPG (31 KB...


fixed chip.JPG (26 KB)


S.Longtin & imee Shaykin.JPG


pt, dr. chat.JPG (29 KB)

Imagine being a 15 year old girl with front teeth so decayed they have holes and are black in color. We met this young lady at Friends of the Children. With negative dental experiences in the past, and a bit of apprehension, after discussing the state of their oral health with the Mom she made the commitment to bring her daughter and son daily for appointments. See the shocking before photos and the successful results and smile after restorations for this young lady. She was so excited with her new smile, she was going to wait to show her friends and surprise them when school started.

It was hot in Portland, one of those few days that the temperature hovers near triple digits and it's a bit too warm for the Tooth Taxi generator.
A short downtime and a repair have us prepared for the next heat wave (see att. photo of our repair and the Tooth Taxi parked at Friends of the Children).

This was our second summer to visit Friends of the Children, a program that assigns mentors to at risk children from Kindergarten through 12th grade. The mentors "friends" grateful for our services helped families complete paperwork for the Tooth Taxi and provided transportation for appointments.

Volunteers:
Dr. Nick Mellum and assistant Kristy Campbell, new volunteers to the Tooth Taxi. They treated a patient with a chipped front tooth and gave him a new smile for back to school (see att. photos of volunteers and patient).

Visitors:
Aimee Shaykin & Stephanie Longtin from the Providence Child Center (see att. photo). Aimee and Stephanie are involved in the new Providence Specialty Pediatric Dental Clinic. It was a great exchange sharing information on our two programs and they left us with resources to give families that have special health care needs.

Tooth Taxi fans Dr. Kurt Ferre and Annette Rotrock from Creston Clinic came by to say hello.

From the kid gallery:
Have you been to the dentist before? "It was kinda tough; I had to walk all the way from my house to downtown."

From an 8 yr old: "Nothing better than seeing a bloody tooth unless you're a dentist or a dentist helper or a vampire or a werewolf."

Photos:
Dr. and patient chat

Other notes:
55% of students screened needed treatment 45% needed no treatment.

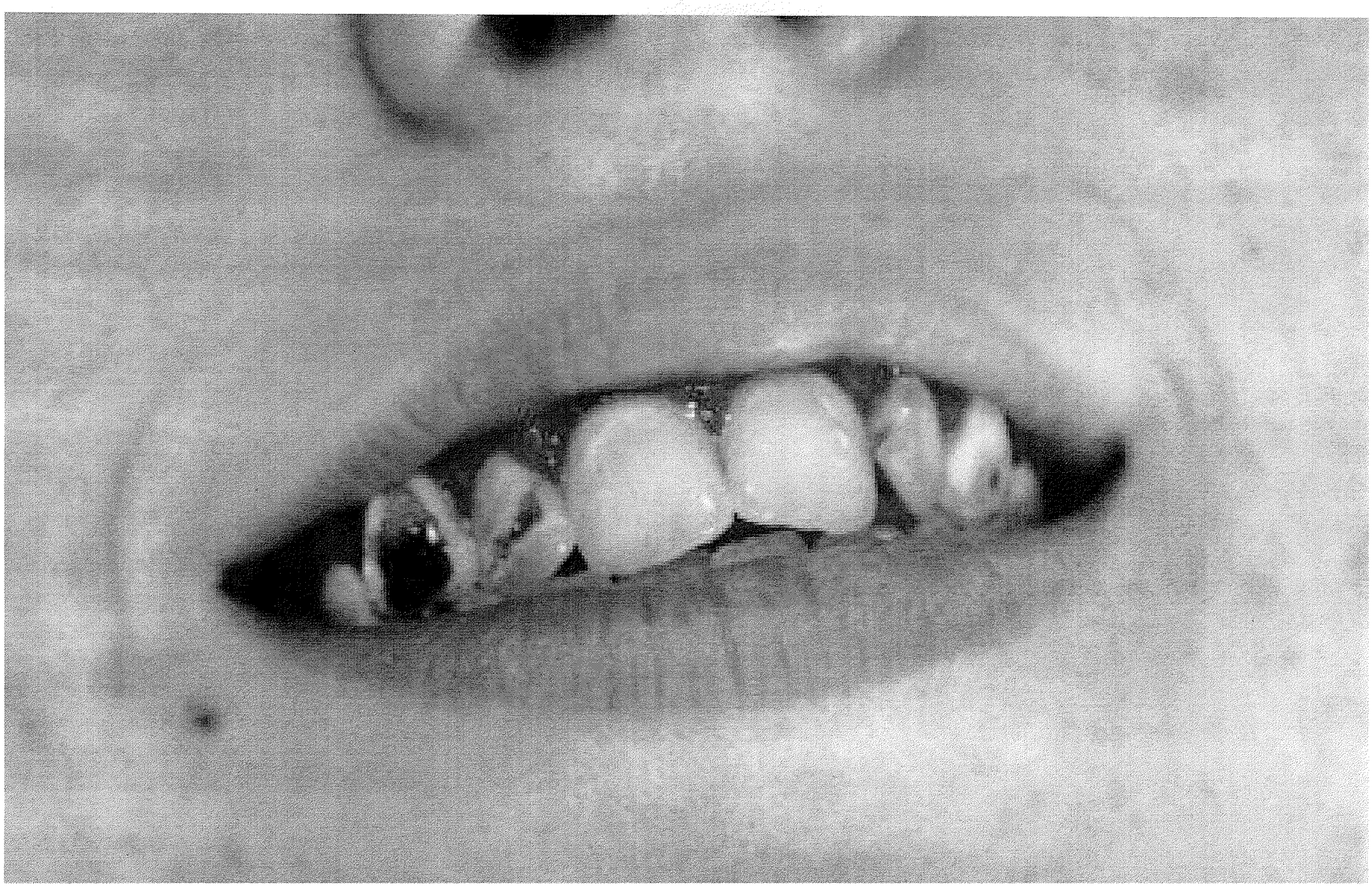
185612

Stats:
Portland, Friends of the Children Aug 13-17, 2012
20 students screened
0 students received oral hygiene education in the classroom
24 appointments in the van
$11,145 value of free dental services provided.

Summary
Tooth Taxi, September 4, 2008 – August 17, 2012
12.094 students screened
11,868 students received oral hygiene education in the classroom
5,407 students treated in the van
$3,240,437 value of free dental services provided.

Mary A Daly
Tooth Taxi Program Manager
Dental Foundation of Oregon
PO Box 2448
Wilsonville, OR 97070-2448
503. 265.5664
503. 329.8877 cell
503. 218.2004 fax
www.SmileOnOregon.org

185612



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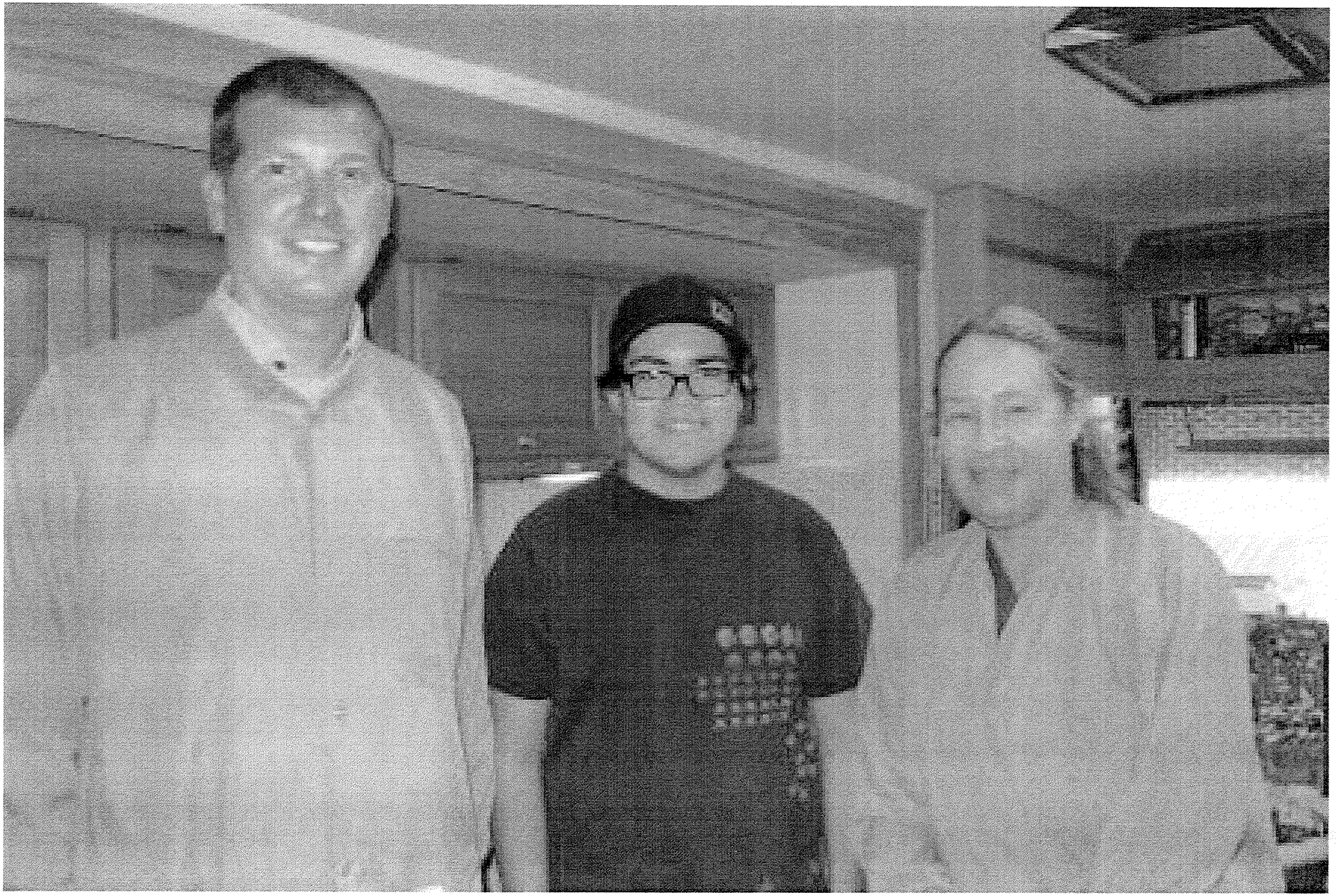

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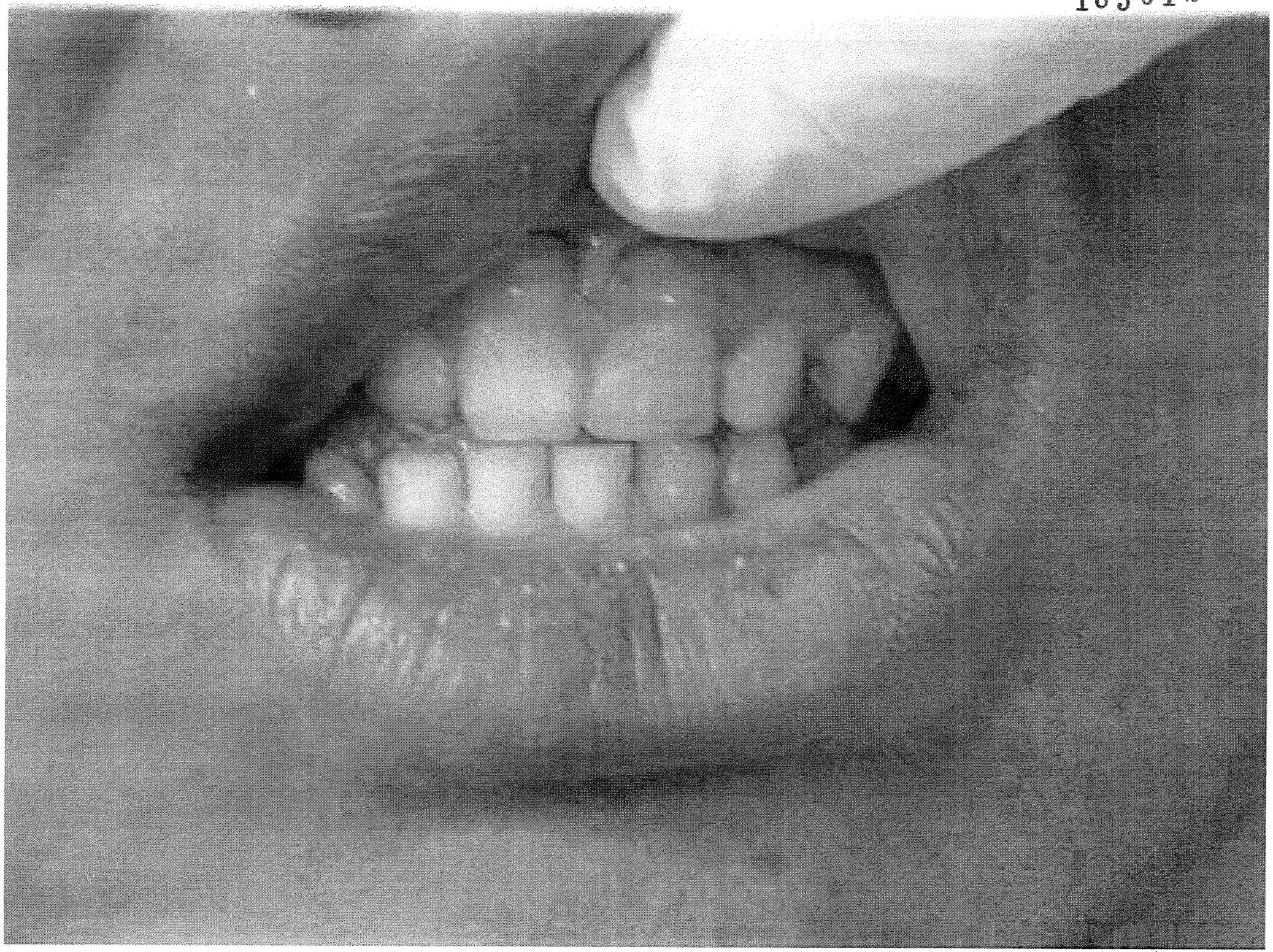

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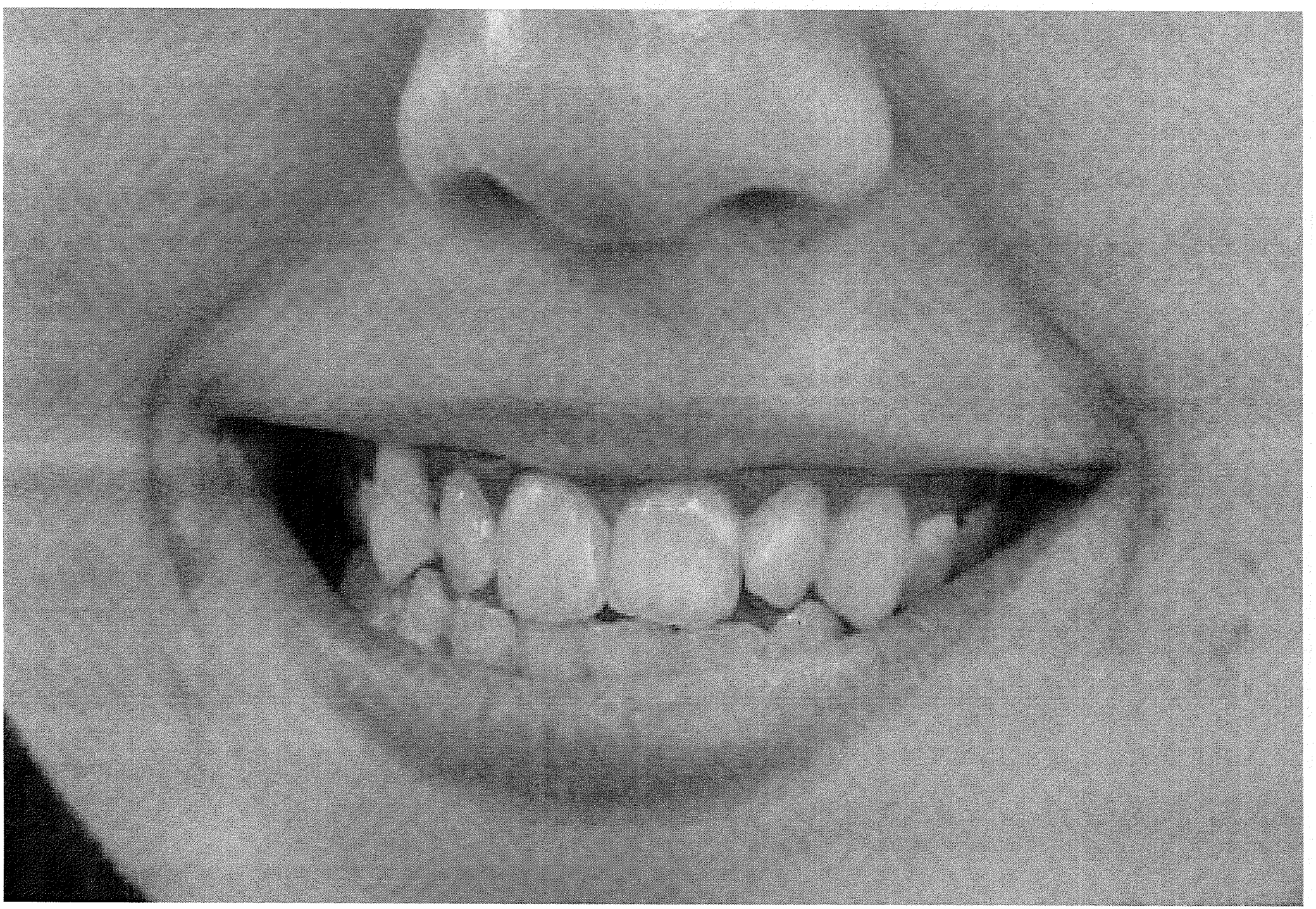

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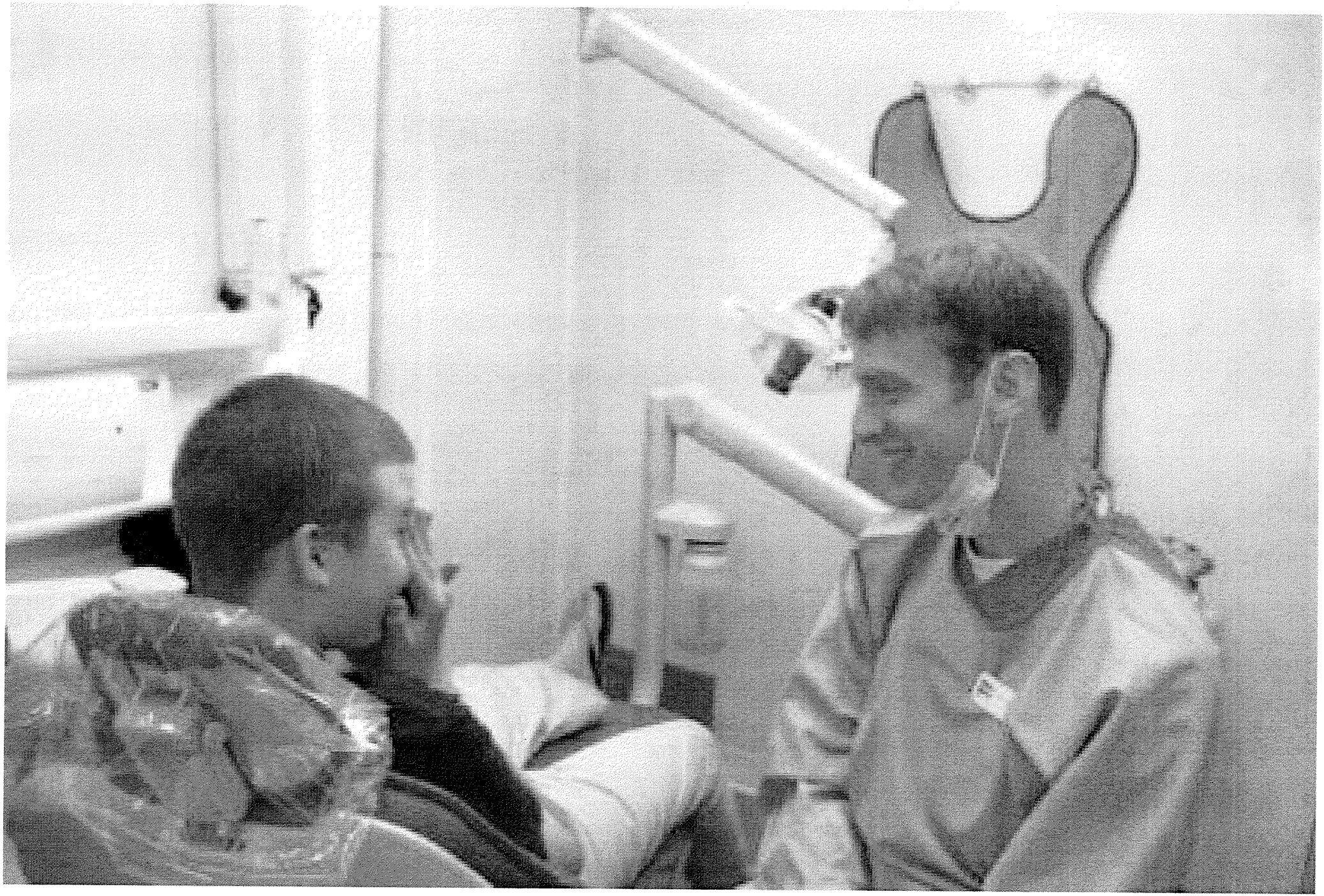

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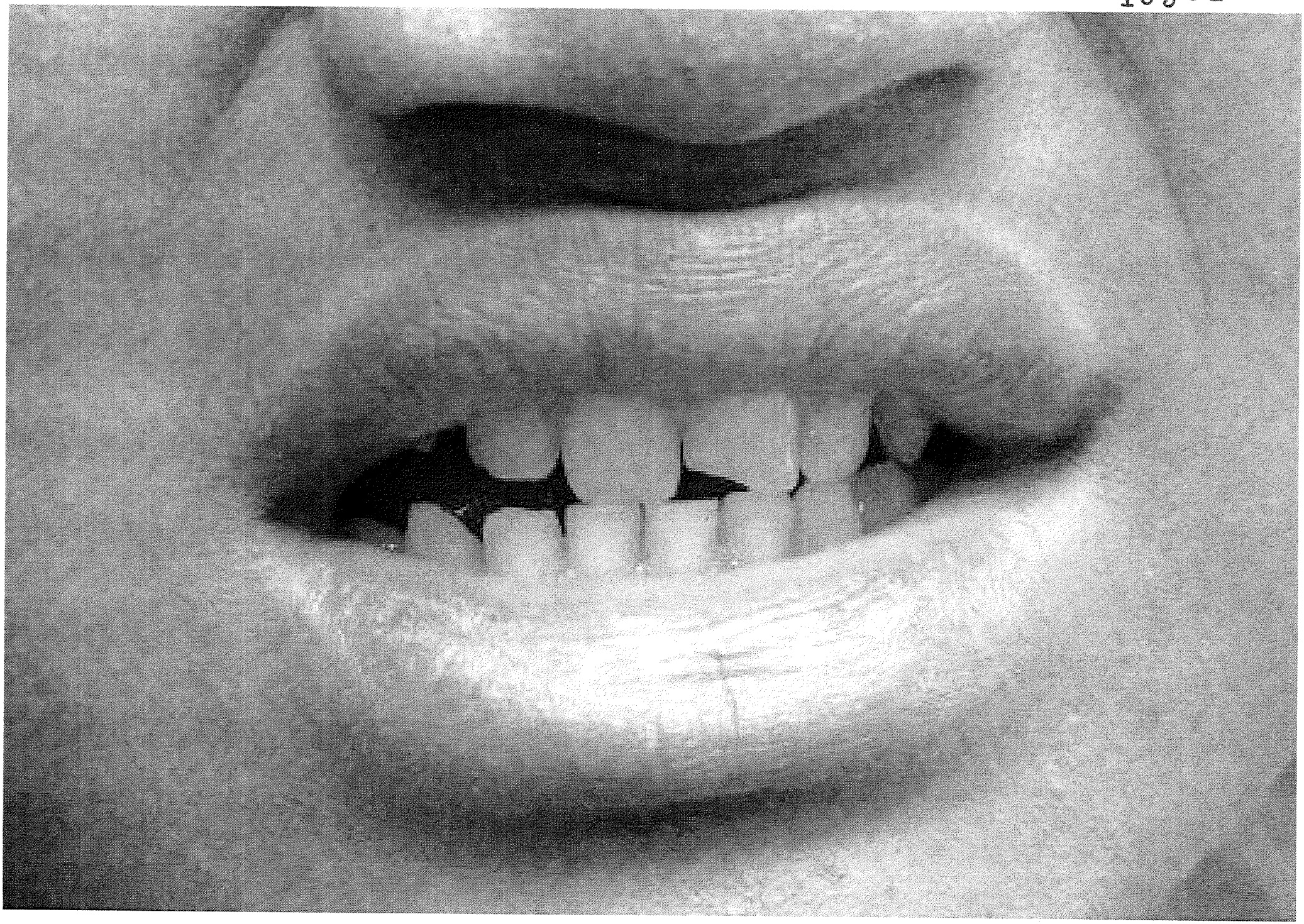

185612

Parsons, Susan

From: Kathleen Courian-Sanchez [arttoad1@gmail.com]
Sent: Monday, August 27, 2012 9:15 AM
To: Moore-Love, Karla; Adams, Mayor; Commissioner Fritz; Commissioner Saltzman; Leonard, Randy; Commissioner Fish
Subject: Fluorides affect on the brain and central nervous system (Dr. Phyllis Mullenix)

Attachments: Appendix-31-Mullenix.pdf

Appendix-31-Mullenix.pdf (4 MB...

I would like this scientific paper to be introduced into the public record regarding water fluoridation in Portland water.

This scientific paper was produced by Dr. Phyllis Mullenix a toxicologist who studies the affects of toxins on the brain. She found that the brain and central nervous system (among other health problems) are adversely and PERMANENTLY damaged after even one exposure to fluoride.

I am attaching a video link to Dr. Phyllis Mullenix presentation on this research at Fluoride Forum Clark University, Worchester, MA.

http://www.youtube.com/watch?v=fcecIDLfAl4

Pergamon

Neurotoxicology and Teratology, Vol. 17, No. 2, pp. 169–177, 1995

0892-0362/95 $9.50 + .00

0892-0362(94)00070-0

Neurotoxicity of Sodium Fluoride in Rats

PHYLLIS J. MULLENIX,*†[1] PAMELA K. DENBESTEN,‡ ANN SCHUNIOR* AND WILLIAM J. KERNAN§

*Toxicology Department, Forsyth Research Institute, Boston, MA 02115
†Department of Radiation Oncology, Harvard Medical School, Boston, MA 02115
‡Department of Pediatric Dentistry, Eastman Dental Center, Rochester, NY 14621
§Veterinary Diagnostic Laboratory, Iowa State University, Ames, IA 50011

Received 25 March 1994; Accepted 12 October 1994

MULLENIX, P. J., P. K. DENBESTEN, A. SCHUNIOR AND W. J. KERNAN. *Neurotoxicity of sodium fluoride in rats.* NEUROTOXICOL TERATOL 17(2) 169–177, 1995.—Fluoride (F) is known to affect mineralizing tissues, but effects upon the developing brain have not been previously considered. This study in Sprague–Dawley rats compares behavior, body weight, plasma and brain F levels after sodium fluoride (NaF) exposures during late gestation, at weaning or in adults. For prenatal exposures, dams received injections (SC) of 0.13 mg/kg NaF or saline on gestational days 14–18 or 17–19. Weanlings received drinking water containing 0, 75, 100, or 125 ppm F for 6 or 20 weeks, and 3 month-old adults received water containing 100 ppm F for 6 weeks. Behavior was tested in a computer pattern recognition system that classified acts in a novel environment and quantified act initiations, total times and time structures. Fluoride exposures caused sex- and dose-specific behavioral deficits with a common pattern. Males were most sensitive to prenatal day 17–19 exposure, whereas females were more sensitive to weanling and adult exposures. After fluoride ingestion, the severity of the effect on behavior increased directly with plasma F levels and F concentrations in specific brain regions. Such association is important considering that plasma levels in this rat model (0.059 to 0.640 ppm F) are similar to those reported in humans exposed to high levels of fluoride.

Fluoride Neurotoxicity Central nervous system

DENTAL fluorosis has been on the rise since the 1950s, indicating that our total fluoride exposure is increasing (9). Fluoride, including sodium fluoride (NaF), has been added to public water supplies for over 40 years in the United States as a preventative measure against dental caries. Other sources of fluoride exposure include processed beverages, toothpastes, mouth rinses, dietary supplements, and food. Although dental fluorosis causes discoloration of teeth, it is not considered a public health concern because it does not hinder tooth function or oral health. In addition, no clear link has been established between fluoride and cancer risk, bone fractures, birth defects, or problems of the gastrointestinal, genito-urinary, or respiratory systems (1). Therefore, the impetus to limit total fluoride exposure in the United States is currently based on cosmetic concerns and a general desire not to expose the public to any more fluoride than the amount necessary to prevent dental caries.

One concern that has not been fully investigated is the link between fluoride and effects on the central nervous system (CNS). In vitro studies have shown that intracellular fluoride can alter the kinetic properties of calcium currents in hippocampal neurons (22). Fluoride is a normal component of cerebrospinal fluid (21), but it has not been found to accumulate there during endemic fluorosis or nervous system disease (21,41). Yet, there have been reports from Chinese investigators that high levels of fluoride in drinking water (i.e., 3–11 ppm) affect the nervous system directly without first causing physical deformations from skeletal fluorosis (13,20,40). One study of adult humans found attention affected by sublingual drops containing 100 ppm of sodium fluoride (39), an exposure level potentially relevant to humans because toothpastes contain 1000 to 1500 ppm fluoride (8,48) and mouthrinses contain 230–900 ppm fluoride (48).

Many years of ubiquitous fluoride exposure have not resulted in obvious CNS problems such as seizures, lethargy, salivation, tremors, paralysis, or sensory deficits. Still unexplored, however, is the possibility that fluoride exposure is linked with subtle brain dysfunction. The present study evaluates the neurotoxic potential of sodium fluoride in an animal model. It uses behavioral methodology that focuses on behavioral repertoire, responses to novelty and the temporal or sequential organization of spontaneous behavior, all important

[1] Requests for reprints should be addressed to Phyllis J. Mullenix, P.O. Box 753, Andover, MA 01810-0013.

DISCUSSION

This study demonstrates a link between certain fluoride exposures and behavioral disruption in the rat. The effect on behavior varied with the timing of exposure during CNS development. Behavioral changes common to weanling and adult exposures were different from those after prenatal exposures. Prenatal exposure on GDs 17–19 dispersed many behaviors as seen in drug-induced hyperactivity (34), while weanling and adult exposures led to behavior-specific changes more related to cognitive deficits (35,36). Prenatally induced behavioral effects were unaccompanied by changes in body weight or elevated plasma fluoride levels. Rather, the most obvious hypothesis is that the effects relied on transient peaks in maternal plasma fluoride levels, fluoride passing the placenta, and fluoride penetrating the blood–brain barrier of the fetus. Fluoride has been reported to pass the placenta in rats (45), and on GD 17–19 the blood–brain barrier is immature and readily penetrable (52). In contrast, the behavioral effects induced by weanling and adult exposures were accompanied often by weight reduction and always by elevated plasma fluoride levels. In fact, effects on behavior related directly to plasma fluoride levels and the fluoride accumulation in the brain. This contradicts findings from short-term fluoride kinetic studies, which found that the adult blood–brain barrier was relatively impermeable to fluoride when whole brain fluoride levels were measured within 1 h following IV injection (49,50). Considering the brain fluoride accumulations found in this study, such impermeability does not apply to chronic exposure situations.

Hyperactivity and cognitive deficits are generally linked with hippocampal damage (3), and in fact, the hippocampus is considered to be the central processor which integrates inputs from the environment, memory, and motivational stimuli to produce behavioral decisions and modify memory (12). GDs 17–19 in the rat is a period when pyramidal cells of the hippocampus are forming (6), and granule cells of the dentate gyrus of the hippocampus form at the ages when weanling and adult exposures were administered (7). Involvement of different cell types would explain variation in behavioral outcomes between prenatal, weanling, and adult exposures. The hypothalamus and the hippocampus in normal female rat brains have the lowest concentrations of fluorine, the element which was found to be the most regionally distributed by instrumental neutron activation analysis (10). The method used for ionic fluoride analysis in the present study also revealed that the brain region containing the lowest fluoride concentrations was the hippocampus of controls but only in females. This hippocampal selectivity was disrupted when adult females were exposed for 6 weeks to 100 ppm fluoride; hippocampal fluoride levels increased and behavior was affected. Adult males receiving the same fluoride exposure did not have significantly elevated fluoride levels in the hippocampus, nor did they have significant behavioral disturbances. Sex differences in hippocampal function have been described recently in other studies (2,47). Overall, the behavioral changes from fluoride exposure are consistent with interrupted hippocampal development. Whether the hippocamus is indeed the brain region most susceptible to fluoride is a possibility deserving consideration in future studies.

Interruption of normal brain development often results in responses that are sex-dependent. The brain responds differently to drugs depending on which hormones are present at the time and whether the brain is male or female (30). In male primates the orbital cortex matures earlier than in females, and such developmental differences are thought responsible for the consequences of perinatal injuries appearing more frequently in males (18). This type of developmental difference might explain why transient peaks of fluoride on prenatal days 17–19 affected males and not females. The effects of chronic fluoride exposures at weanling and adult stages may have involved still other sexual dimorphisms. There are developmentally regulated sexual dimorphisms in hypothalamic somatostatin and growth-hormone-releasing factor signaling, growth hormone secretion and even hepatic metabolism (5,29,38). The sexually dimorphic control of growth would be especially important to fluoride distribution. The rate of fluoride uptake by bone depends on age or the stage of skeletal development; fluoride is deposited in mineralizing new bone more readily than in existing bone (49). As males experience greater and more prolonged growth spurts than females, their plasma fluoride might be directed more to bone than to brain, perhaps explaining why longer exposures and higher plasma fluoride levels were needed in males to affect behavior. Fluoride's tendency to seek developing bone may also explain why adult female rats had behavioral effects at a lower plasma fluoride concentration than did weanling female rats. Levels of fluoride in plasma and bone must be correlated with those in specific brain regions of both sexes to fully understand behavioral consequences.

Rats ingested 75–125 ppm fluoride for weeks to attain plasma fluoride levels of 0.059–0.640 ppm. Six weeks of consuming 75 and 100 ppm fluoride produced higher plasma fluoride levels than did 125 ppm. Perhaps a taste aversion limited water consumption at the 125 ppm level, prolonging the period needed to attain plasma levels that were achieved in 6 weeks by the two lower exposure levels. Regardless, it was fluoride levels in plasma, not fluoride levels of exposure, which best predicted effects on behavior. Similar plasma fluoride levels of 0.076–0.25 ppm have been found in humans ingesting 5–10 ppm fluoride in drinking water (19,37,42), and plasma levels as high as 0.28 to 0.43 ppm have been measured in children drinking water containing 16 ppm fluoride (44). This plasma fluoride range also occurs in certain therapies. Fasting serum fluoride levels of 0.2 to 0.3 ppm are used in the treatment of osteoporosis (31), and plasma fluoride levels as high as 1.44 ppm are found in children 1 h after receiving topical applications of an acidulated phosphate fluoride (1.23%) gel (14,15).

Because humans occasionally are exposed to high amounts of fluoride and plasma levels as high as those found in this rat study, neurotoxic risks deserve further evaluation. This is the first laboratory study to demonstrate that CNS functional output is vulnerable to fluoride, that the effects on behavior depend on the age at exposure and that fluoride accumulates in brain tissues. Experience with other developmental neurotoxicants prompts expectations that changes in behavioral function will be comparable across species, especially humans and rats (16,43). Of course behaviors per se do not extrapolate, but a generic behavioral pattern disruption as found in this rat study can be indicative of a potential for motor dysfunction, IQ deficits and/or learning disabilities in humans. Substances that accumulate in brain tissue potentiate concerns about neurotoxic risks, but the conditions leading to fluoride deposits in any species are still not clear such that quantitative extrapolations are not possible at this time. Thus, conclusions concerning the neurotoxic potential of fluoride require further rat and human studies, both focused on the relationship of plasma fluoride levels with the brain, behavior, and skeletal growth.

ACKNOWLEDGEMENTS

We thank John W. Hein, former Director of the Forsyth Dental Center, and the late Harold C. Hodge for their encouragement, suggestions, and support during this project. We also thank Amy Szeto

185612

Parsons, Susan

From: Shawna ONeal [mail@change.org]
Sent: Monday, August 27, 2012 2:57 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I do not feel ingesting fluoride is safe for our health.

Shawna ONeal
Portland, Oregon

185612

Parsons, Susan

From: Dorrit Thomsen [mail@change.org]
Sent: Monday, August 27, 2012 3:03 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

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Sincerely,

Dorrit Thomsen
Portland, Oregon

Parsons, Susan 185612

From: Nadi Gruber [mail@change.org]
Sent: Monday, August 27, 2012 3:04 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Really? It's our water and flouridation is awful.

Nadi Gruber
Portland, Oregon

Parsons, Susan

185612

From: Steven King [mail@change.org]
Sent: Monday, August 27, 2012 3:20 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

This issue at LEAST needs to come before a vote of the people.

Steven King
PORTLAND, Oregon

Parsons, Susan

185612

From: Angie Bork [mail@change.org]
Sent: Monday, August 27, 2012 3:23 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Angie Bork
Portland, Oregon

Parsons, Susan

185612

From: Lorraine Marchant [mail@change.org]
Sent: Monday, August 27, 2012 3:26 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I want the right to choose what I put into my body.

Lorraine Marchant
Oregon City, Oregon

Parsons, Susan

185612

From: Olivia Meiring [mail@change.org]
Sent: Monday, August 27, 2012 3:40 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Olivia Meiring
Portland, Oregon

Parsons, Susan

185612

From: Nicole Mo'on [mail@change.org]
Sent: Monday, August 27, 2012 4:29 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Thank you,

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Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Nicole Mo'on
Portland, Oregon

Parsons, Susan

185612

From: Donna Hauser [mail@change.org]
Sent: Monday, August 27, 2012 4:31 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Love the water as it is. Don't force us to buy water to avoid drinking fluoride. Don't be controlled by those that want our most precious resource.

Donna Hauser
Portland, Oregon

Parsons, Susan 185612

From: Olivia Schmidt [mail@change.org]
Sent: Monday, August 27, 2012 4:40 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

i am a nursing mother and i don't want fluoride in my breastmilk.

Olivia Schmidt
Portland, Oregon

Parsons, Susan

185612

From: Nancy Parent [mail@change.org]
Sent: Monday, August 27, 2012 4:42 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

We all know the health and enviromental risks of fluoridating our water and so do they. Why are they not allowing us to vote on it? because they know we would shoot it down. They know how smart we are.

Nancy Parent
Portland, Oregon

Parsons, Susan

185612

From: Dena Ford [mail@change.org]
Sent: Monday, August 27, 2012 11:22 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Fluoride is not safe!!

Dena Ford
Newberg, Oregon

Parsons, Susan

185612

From: Miriam Eschweiler [mail@change.org]
Sent: Monday, August 27, 2012 11:30 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Miriam Eschweiler
Beaverton, Oregon

Parsons, Susan

185612

From: Alonso Hernandez [mail@change.org]
Sent: Monday, August 27, 2012 12:27 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Alonso Hernandez
San Antonio, Texas

Parsons, Susan

185612

From: Katrina Smith [mail@change.org]
Sent: Monday, August 27, 2012 12:35 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Katrina Smith
San Antonio, Texas

Parsons, Susan

185612

From: Amy Evans [mail@change.org]
Sent: Monday, August 27, 2012 2:03 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Amy Evans
Portland, Oregon

185612

Parsons, Susan

From: Albert Kaufman [mail@change.org]
Sent: Monday, August 27, 2012 2:06 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I'd like to see more discussion on this issue, and I trust Kellie Barnes.

Albert Kaufman
Portland, Oregon

Parsons, Susan

185612

From: Jacqueline Rubinstein
Sent: Monday, August 27, 2012 2:30 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Jacqueline Rubinstein, GCFP
Portland, Oregon

Parsons, Susan

185612

From: Kay Floyd [mail@change.org]
Sent: Monday, August 27, 2012 2:49 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Citizens should have the right to make decisions concerning their own health. I grew up without fluoride in the water and didn't have a cavity until I was 19. My daughter didn't have one until she was 29.

Kay Floyd
Martinsburg, West Virginia

Parsons, Susan

185612

From: Lauren Kennedy [mail@change.org]
Sent: Monday, August 27, 2012 2:54 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Lauren Kennedy
Portland, Oregon

Parsons, Susan

185612

From: Tammy Frederick [mail@change.org]
Sent: Monday, August 27, 2012 6:36 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I care about the quality of life

Tammy Frederick
Milwaukie, Oregon

Parsons, Susan

185612

From: Corinne Palmer [mail@change.org]
Sent: Monday, August 27, 2012 7:14 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I am a concerned citizen. I work in Portland and do not want the drinking water to be fluoridated.

Corinne Palmer
Oregon City, Oregon

Parsons, Susan

185612

From: G. Buddy Bercu [mail@change.org]
Sent: Monday, August 27, 2012 6:51 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

There is enough flouride in toothpaste if you choose to incorporate it into your daily regiment. It can cause cancer and other reproductive maladies...We don't need it in our pristine Bull Run water supply. Thanks

G. Buddy Bercu
Portland, Oregon

Parsons, Susan

185612

From: Julie Waddell [mail@change.org]
Sent: Monday, August 27, 2012 8:17 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

This or any law like it takes away my right to choose, and that is why it is of grave importance to me. This is mass medication of the public without regard for individuals personal needs and it crosses the bounds of our republic.

Julie Waddell
Oregon City, Oregon

Parsons, Susan

185612

From: Gayle Morris [mail@change.org]
Sent: Monday, August 27, 2012 8:44 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Gayle Morris
Beaverton, Oregon

Parsons, Susan 185612

From: Dana Sturtevant [mail@change.org]
Sent: Monday, August 27, 2012 8:48 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Dana Sturtevant
Portland, Oregon

Parsons, Susan

185612

From: Kim Anderson [mail@change.org]
Sent: Monday, August 27, 2012 8:57 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

I choose not to use fluoride toothpaste because of the potential health risks. I don't think our city's drinking and bathing and washing water should be pumped full of a chemical with dubious health and safety value.

Kim Anderson
Portland, Oregon

Parsons, Susan

185612

From: richard barton [mail@change.org]
Sent: Monday, August 27, 2012 9:11 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

richard barton
portland, Oregon

Parsons, Susan

185612

From: Jeff Slater [mail@change.org]
Sent: Monday, August 27, 2012 4:10 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Fluoride can have harmful effects on our health.

Jeff Slater
Tigard, Oregon

Parsons, Susan

185612

From: Bryan Dunning [mail@change.org]
Sent: Monday, August 27, 2012 2:54 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Bryan Dunning
Portland, Oregon

Parsons, Susan

185612

From: charity Prater [mail@change.org]
Sent: Monday, August 27, 2012 2:51 AM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

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Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

charity Prater
Portland, Oregon

Parsons, Susan

185612

From: Sacha Stephens-Avery [mail@change.org]
Sent: Sunday, August 26, 2012 5:47 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

Dear Portland City Council,

I just signed the following petition addressed to Mayor Adams and each of the City Commissioners.

We are a coalition of concerned citizens, parents, health care care practitioners, organizations, and businesses that believe a systemic water fluoridation program should not be implemented without public consent.

There is a growing body of scientific literature that questions the community benefit versus the community risk from such a systemic implementation of fluoride. We believe the first and ongoing costs of such a fluoridation program would be better used for public outreach and education regarding dental health, including dental hygiene and nutrition.

Topical use of fluoride for dental health is more readily controllable, and could potentially be provided to those without dental health access.

We believe the entire population of Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Citizens should have the right to consent, and the right to vote on such an important issue.

We ask that you allow the people of Portland the right vote.

Thank you,

Coalition of Concerned Citizens

Portland should not be exposed to a health related proposal or ordinance without a thorough public review and vetting.

Sincerely,

Sacha Stephens-Avery
Portland, Oregon

Parsons, Susan

185612

From: Kaya Singer [mail@change.org]
Sent: Sunday, August 26, 2012 6:05 PM
To: Moore-Love, Karla
Subject: Public Review of Portland Water Supply Fluoridation

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Sincerely,

Kaya Singer
Portland, Oregon