

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 901
(I-19)

Introduced by: Medical Student Section

Subject: Health Impact of Per- and Polyfluoroalkyl Substances (PFAS) Contamination in Drinking Water

Referred to: Reference Committee K
(_____, Chair)

1 Whereas, The Environmental Protection Agency (EPA) determines whether a contaminant
2 should have an enforceable regulatory standard for water contamination based on three criteria
3 including: a) adverse effect on the health of persons, b) the contaminant is known to occur in
4 public water often enough at levels of concern, c) regulation provides a meaningful opportunity
5 for health risk reductions¹; and

6 Whereas, Polyfluoroalkyl chemicals (PFAS) are chemicals used in the manufacturing of
7 thousands of industrial and consumer products and are recognized by the Centers for Disease
8 Control and Prevention (CDC) as substances toxic to human health²; and

9 Whereas, PFAS are non-biodegradable chemicals that accumulate in the human body with
10 elimination half-lives up to 12 years and as of July 2018 PFAS have been detected at 172 sites
11 in 40 states and have resulted in more than 3000 environmental and health related publications
12 since 2000²⁻⁶; and

13 Whereas, PFAS' negative health effects include but are not limited to increased risk of
14 hypertension, pre-eclampsia, and low birth weight during pregnancy, endocrine disruption,
15 increased risk of thyroid and kidney disease, and association with various cancers^{2,7,8}; and

16 Whereas, PFAS cross the placental barrier, are detected in cord blood, are transmitted through
17 breast milk, and are negatively associated with fetal and postnatal growth, immune function, and
18 reproductive health⁹⁻¹²; and

19 Whereas, Children are particularly at risk due to differences in PFAS dosimetry, impact on
20 physical and cognitive development, and in particular, dose-dependent immunomodulatory
21 effects which dampen responses to vaccines^{9,13,14}; and

22 Whereas, The EPA found PFAS in water and soil nationwide, labeled PFAS an "emerging
23 contaminant," and in May 2016 released non-enforceable lifetime health advisories for two
24 specific PFAS chemicals: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS)
25 of 70 ppt, above this level the EPA recommends that drinking water systems takes steps to
26 assess contamination, inform consumers, and limit exposure^{15,16}; and

1 Whereas, In November 2016, the American Public Health Association stated that all exposures
2 to PFAS should be reduced, and in June 2018, the CDC's Agency for Toxic Substances and
3 Disease Registry (ATSDR) recommended reducing the minimum risk levels of PFAS ten-fold,
4 from 70 ppt to 7 ppt due to the chemicals' significant negative health effects^{2,17}; and
5
6 Whereas, The International Agency for Research on Cancer (IARC), a part of the World Health
7 Organization (WHO) has classified PFOA as possibly carcinogenic to humans¹⁸; and
8
9 Whereas, The EPA sets Maximum Contaminant Level Goals (MCLG) at zero for contaminants
10 that may cause cancer¹; and
11
12 Whereas, The EPA maintains the Integrated Risk Information System (IRIS), an electronic
13 database that contains information on human health effects from exposure to various
14 substances in the environment, in which PFOA is not classified as to its carcinogenicity^{19,20}; and
15
16 Whereas, In February 2019, the EPA published its PFAS Action Plan which included as
17 priorities initiating processes for listing PFOA and PFOS as hazardous substances and
18 organizing efforts for water supply clean-up, but does not commit to setting maximum
19 contaminant levels (MCLs)^{21,22}; and
20
21 Whereas, A Congressional PFAS Task Force was established in January 2019 to educate and
22 draft policies on PFAS based on the latest research, and a Senate bill in March 2019, calls for
23 PFAS to be designated as a hazardous chemical within a year and require cleanup of
24 contaminated sites^{23,24}; and
25
26 Whereas, Despite the CDC's recommendations, urging from various U.S. senators, and
27 examples from various states which have established their own PFAS water guidelines, no
28 federal PFAS drinking water standards have yet been implemented^{16,25-28}; and
29
30 Whereas, The CDC blood lead level limits are based on a reference blood lead level based on
31 the 97.5th percentile of the blood lead level distribution among children 1-5 years old in the
32 United States, which is currently a 5 ug/dL lead level in children²⁹; and
33
34 Whereas, A similar reference blood PFAS level to aim to reduce average PFAS blood levels in
35 US children to as low a level as possible could be based on the 95th percentile of total serum
36 concentration of PFAS in U.S. children, which as per the most recent study of National Health
37 and Nutritional Examination Survey would be 11 ng/dL (0.11 µg/L) with a limit of detection is 0.1
38 ng/dL (0.001 µg/L) in children ages 3-11 from 2013-14³⁰; and
39
40 Whereas, In 2006, the EPA announced a Product Stewardship agreement with 8 global
41 manufacturing companies who pledged to reduce PFOA emissions and product content by 95%
42 in 2010 and work towards its elimination by 2015, and as of February 2017 all participating
43 companies state they met the PFOA Stewardship Program goals^{31,32}; and
44
45 Whereas, The European Union has phased out contamination from PFAS by severely limiting
46 the use of PFAS and PFAS derivatives in manufacturing via the REACH Regulation³³; and

1 Whereas, Existing AMA policy addresses water contamination by lead (H-135.928, H-60.918),
2 pharmaceuticals (D-135.993), and chlorine (H-135.956), but does not address contamination of
3 drinking water by PFAS chemicals specifically; and
4
5 Whereas, Blood screening for water contamination is supported by H-60.924, but no similar
6 policy exists for PFAS; therefore be it
7
8 RESOLVED, That our American Medical Association support legislation and regulation seeking
9 to address contamination, exposure, classification, and clean-up of Per- and Polyfluoroalkyl
10 substances. (New HOD Policy)

Fiscal Note:

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RELEVANT AMA POLICY

Safe Drinking Water H-135.928

Our AMA supports updates to the U.S. Environmental Protection Agency's Lead and Copper Rule as well as other state and federal laws to eliminate exposure to lead through drinking water by:

- (1) Removing, in a timely manner, lead service lines and other leaded plumbing materials that come into contact with drinking water;
- (2) Requiring public water systems to establish a mechanism for consumers to access information on lead service line locations;
- (3) Informing consumers about the health-risks of partial lead service line replacement;
- (4) Requiring the inclusion of schools, licensed daycare, and health care settings among the sites routinely tested by municipal water quality assurance systems;
- (5) Creating and implementing standardized protocols and regulations pertaining to water quality testing, reporting and remediation to ensure the safety of water in schools and child care centers;
- (6) Improving public access to testing data on water lead levels by requiring testing results from public water systems to be posted on a publicly available website in a reasonable timeframe thereby allowing consumers to take precautions to protect their health;
- (7) Establishing more robust and frequent public education efforts and outreach to consumers that have lead service lines, including vulnerable populations;
- (8) Requiring public water systems to notify public health agencies and health care providers when local water samples test above the action level for lead;
- (9) Seeking to shorten and streamline the compliance deadline requirements in the Safe Drinking Water Act; and
- (10) Actively pursuing changes to the federal lead and copper rules consistent with this policy.

Citation: Res. 409, A-16; Modified: Res. 422, A-18; Reaffirmed: BOT Rep. 29, A-19

Chemical Analysis Report of Public and Commercial Water D-440.999

Our AMA: (1) requests the appropriate federal agency to require analysis and appropriate labeling of the chemical content, including fluoride, of commercially bottled water, as well as of the water supplies of cities or towns; (2) urges the FDA to require that annual water quality reports from bottled water manufacturers be publicly accessible in a readily available format; and (3) urges the FDA to evaluate bottled water for changes in quality after typical storage conditions.

Citation: (Res. 427, I-98; Reaffirmed: CSAPH Rep. 2, A-08; Modified: CSAPH Rep. 3, A-12)

Lead Contamination in Municipal Water Systems as Exemplified by Flint, Michigan H-60.918

1. Our AMA will advocate for biologic (including hematological) and neurodevelopmental monitoring at established intervals for children exposed to lead contaminated water with resulting elevated blood lead levels (EBLL) so that they do not suffer delay in diagnosis of adverse consequences of their lead exposure.
2. Our AMA will urge existing federal and state-funded programs to evaluate at-risk children to expand services to provide automatic entry into early-intervention screening programs to assist in the neurodevelopmental monitoring of exposed children with EBLL.
3. Our AMA will advocate for appropriate nutritional support for all people exposed to lead contaminated water with resulting elevated blood lead levels, but especially exposed pregnant women, lactating mothers and exposed children. Support should include Vitamin C, green leafy vegetables and other

calcium resources so that their bodies will not be forced to substitute lead for missing calcium as the children grow.

4. Our AMA promotes screening, diagnosis and acceptable treatment of lead exposure and iron deficiency in all people exposed to lead contaminated water.

Citation: Res. 428, A-16

The Health Risks of Hydraulic Fracturing H-135.931

1. Our AMA encourages appropriate agencies and organizations to study the potential human and environmental health risks and impacts of hydraulic fracturing.
2. Our AMA: (A) supports the full disclosure of chemicals placed into the natural environment during the petroleum, oil and natural gas exploration and extraction process; and (B) supports the requirement that government agencies record and monitor the chemicals placed into the natural environment for petroleum oil and natural gas extraction and the chemicals found in flowback fluids, to monitor for human exposures in well water and surface water, and to share this information with physicians and the public.
3. Our AMA supports research on the implementation of buffer zones or well set-backs between oil and gas development sites and residences, schools, hospitals, and religious institutions, to determine the distance necessary to ensure public health and safety.

Citation: Res. 405, A-13; Appended: Sub. Res. 508, A-15; Appended: Res. 908, I-17

Contamination of Drinking Water by Pharmaceuticals and Personal Care Products D-135.993

Our AMA supports the EPA and other federal agencies in engaging relevant stakeholders, which may include, but is not limited to the AMA, pharmaceutical companies, pharmaceutical retailers, state and specialty societies, and public health organizations in the development of guidelines for physicians and the public for the proper disposal of pharmaceuticals and personal care products to prevent contamination of drinking water systems.

Citation: (Sub. Res. 42, I-74; Reaffirmed: CLRPD Rep. C, A-89; Reaffirmed: Sunset Report, A-00; Reaffirmed: CSAPH Rep. 1, A-10

Reducing Lead Poisoning H-60.924

1. Our AMA: (a) supports regulations and policies designed to protect young children from exposure to lead; (b) urges the Centers for Disease Control and Prevention to give priority to examining the current weight of scientific evidence regarding the range of adverse health effects associated with blood lead concentrations below the current "level of concern" in order to provide appropriate guidance for physicians and public health policy, and encourage the identification of exposure pathways for children who have low blood lead concentrations, as well as effective and innovative strategies to reduce overall childhood lead exposure; (c) encourages physicians and public health departments to screen children based on current recommendations and guidelines and to report all children with elevated blood levels to the appropriate health department in their state or community in order to fully assess the burden of lead exposure in children. In some cases this will be done by the physician, and in other communities by the laboratories; (d) promotes community awareness of the hazard of lead-based paints; and (e) urges paint removal product manufacturers to print precautions about the removal of lead paint to be included with their products where and when sold.
2. Our AMA will call on the United States government to establish national goals to: (a) ensure that no child has a blood lead level $>5 \mu\text{g}/\text{dL}$ ($>50 \text{ ppb}$) by 2021, and (b) eliminate lead exposures to pregnant women and children, so that by 2030, no child would have a blood lead level $>1 \mu\text{g}/\text{dL}$ (10 ppb).
3. Our AMA will call on the United States government in all its agencies to pursue the following strategies to achieve these goals: (a) adopt health-based standards and action levels for lead that rely on the most up-to-date scientific knowledge to prevent and reduce human exposure to lead, and assure prompt implementation of the strongest available measures to protect pregnant women and children from lead toxicity and neurodevelopmental impairment; (b) identify and remediate current and potential new sources of lead exposure (in dust, air, soil, water and consumer products) to protect children before they are exposed; (c) continue targeted screening of children to identify those who already have elevated blood lead levels for case management, as well as educational and other services; (d) eliminate new sources of lead introduced or released into the environment, which may entail banning or phasing out all remaining uses of lead in products (aviation gas, cosmetics, wheel weights, industrial paints, batteries, lubricants, and other sources), and the export of products containing lead, and setting more protective limits on emissions from battery recyclers and other sources of lead emissions; (e) provide a dedicated funding stream to enhance the resources available to identify and eliminate sources of lead exposure, and

provide educational, social and clinical services to mitigate the harms of lead toxicity, particularly to protect and improve the lives of children in communities that are disproportionately exposed to lead; and (f) establish an independent expert advisory committee to develop a long-term national strategy, including recommendations for funding and implementation, to achieve the national goal of eliminating lead toxicity in pregnant women and children, defined as blood lead levels above 1 µg/dL (10 ppb).

4. Our AMA supports requiring an environmental assessment of dwellings, residential buildings, or child care facilities following the notification that a child occupant or frequent inhabitant has a confirmed elevated blood lead level, to determine the potential source of lead poisoning, including testing the water supply.

Citation: CCB/CLRPD Rep. 3, A-14; Appended: Res. 926, I-16; Appended: Res. 412, A-17

Expansion of Hazardous Waste Landfills Over Aquifers H-135.943

(1) recognizes that the expansion of hazardous waste landfills or the ~~construction~~ of new hazardous waste landfills over principal aquifers represents a potential health ~~risk~~ for the ~~public~~ water supply and is inconsistent with sound principles of public health policy, and therefore should be ~~opposed~~;
(2) will advocate for the continued monitoring of groundwater ~~sources~~, including ~~principal~~ aquifers, that may be contaminated by hazardous waste landfill or other ~~landfill~~ leachate; and
(3) supports efforts to improve hazardous waste treatment, recycling, and disposal methods in order to reduce the public health burden.

Citation: CSAPH Rep. 4, A-07; Reaffirmed: CSAPH Rep. 01, A-17

Human and Environmental Health Impacts of Chlorinated Chemicals H-135.956

(1) Our AMA encourages the Environmental Protection Agency to base its evaluations of the potential public health and environmental risks posed by ~~exposure~~ to an individual chlorinated organic compound, other industrial compound, or manufacturing process on reliable data specific to that compound or process;
(2) encourages the chemical industry to increase knowledge of the environmental behavior, bioaccumulation potential, and toxicology of their products and by-products; and
(3) supports the implementation of risk reduction practices by the chemical and manufacturing industries.

Citation: Sub. Res. 503, A-94; Reaffirmation I-98; Reaffirmed: CSAPH Rep. 2, A-08; Reaffirmation I-16

EPA and Green House Gas Regulation H-135.934

1. Our AMA supports the Environmental Protection Agency's authority to promulgate rules to regulate and control green house gas emissions in the United States.
2. Our AMA: (a) ~~strongly supports~~ evidence-based environmental statutes and regulations intended to regulate air and water pollution and to reduce greenhouse gas emissions; and (b) will advocate that environmental health regulations ~~should~~ only be modified or rescinded with scientific justification.

Citation: Res. 925, I-10; Reaffirmed in lieu of Res. 526, A-12; Reaffirmed: Res. 421, A-14; Appended: Res. 523, A-17

Guidance for Worldwide Conservation of Potable Water H-135.947

Our AMA favors scientific and cultural development of a plan for worldwide potable water conservation, especially in ~~countries~~ affected by natural disasters or other events that disrupt the potable water supply.

Citation: (Res. 406, A-04; Modified in lieu of Res. 906, I-11)