

110TH CONGRESS  
1ST SESSION

# H. R. 2101

To prohibit after 2008 the introduction into interstate commerce of mercury intended for use in a dental filling, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MAY 1, 2007

Ms. WATSON (for herself and Mr. BURTON of Indiana) introduced the following bill; which was referred to the Committee on Energy and Commerce

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## A BILL

To prohibit after 2008 the introduction into interstate commerce of mercury intended for use in a dental filling, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Mercury in Dental Fill-  
5       ings Disclosure and Prohibition Act”.

6       **SEC. 2. FINDINGS.**

7       (a) GENERAL FINDINGS.—The Congress finds as fol-  
8       lows:

1           (1) Elemental mercury and mercury compounds  
2           are known to be toxic and hazardous to human  
3           health and to the environment.

4           (2) Mercury is number three on the 2003  
5           CERCLA Priority List of Hazardous Substances,  
6           behind arsenic and lead.

7           (3) A dental amalgam, commonly referred to as  
8           a “silver filling”, consists of 42 to 58 percent mer-  
9           cury.

10          (4) Consumers may be deceived by the use of  
11          the term “silver” to describe a dental amalgam,  
12          which contains substantially more mercury than sil-  
13          ver.

14          (5) Dentists purchase 34 tons of mercury per  
15          year, the Nation’s third largest purchaser of mer-  
16          cury. Dentists place millions of amalgam fillings in  
17          children each year, even though interchangeable sub-  
18          stitutes of non-toxic materials could also fill those  
19          cavities. Each amalgam filling contains  $\frac{1}{2}$  to  $\frac{3}{4}$  of  
20          a gram of mercury.

21          (6) The mercury contained in dental amalgam  
22          is continually emitted in the form of mercury vapor,  
23          and the total amount of mercury released depends  
24          upon the total number of fillings; their age, composi-  
25          tion, and surface area; the intra-oral presence of

1 other metals; dietary and lifestyle habits; and other  
2 chemical and metabolic conditions affecting the  
3 mouth.

4 (7) When mercury vapors are inhaled, most of  
5 the mercury (about 80 percent) enters the blood-  
6 stream directly through the lungs and then rapidly  
7 deposits preferentially in the brain and kidneys as  
8 well as other parts of the body.

9 (8) Mercury toxicity is a retention toxicity  
10 (total body burden) that builds up over years of ex-  
11 posure, and is therefore dependent on all sources of  
12 mercury to which an individual may be exposed.

13 (9) The National Institutes of Health has con-  
14 cluded that when inorganic mercury is located in  
15 brain tissue, researchers are unable to demonstrate  
16 an appreciable half-life, or decrease, of mercury over  
17 time (more than 120 days). The implications of this  
18 conclusion are that dental amalgam exposure will  
19 permanently increase mercury body burden.

20 (10) According to the World Health Organiza-  
21 tion, the estimated average daily intake and reten-  
22 tion of mercury from dental amalgam ranges from  
23 3 to 27 micrograms per day, and is greater than all  
24 other sources combined.

1           (11) The California Dental Association, by  
2           court order, requires postings of warnings about  
3           mercury fillings in California Dental Offices as of  
4           March 9, 2003. The warnings read “NOTICE TO  
5           PATIENTS: PROPOSITION 65 WARNING: Den-  
6           tal Amalgam, used in many dental fillings, causes  
7           exposure to mercury, a chemical known to the state  
8           of California to cause birth defects or other repro-  
9           ductive harm”.

10          (12) United States consumers and parents have  
11          a right to know, in advance, the risks of placing a  
12          product containing a substantial amount of mercury  
13          in their mouths or the mouths of their children.

14          (13) According to the Agency for Toxic Sub-  
15          stances and Disease Registry, the mercury from  
16          amalgam passes through the placenta of pregnant  
17          women and through the breast milk of lactating  
18          women, increasing health risks to both unborn chil-  
19          dren and newborn babies.

20          (14) The National Academy of Sciences esti-  
21          mated that “over 600,000 children are born each  
22          year at risk for adverse neurodevelopmental effects  
23          due to in utero exposure to methyl mercury”. This  
24          report urged the need to understand the relative

1 amount of mercury attributable to dental amalgam  
2 and to thimerosal in vaccines.

3 (15) Studies show that a variety of commonly  
4 found human intestinal and oral bacteria can meth-  
5 ylate mercury. In this way, the mercury vapor from  
6 fillings biotransforms into the highly neurotoxic and  
7 teratogenic methylmercury.

8 (16) The use of mercury in any product being  
9 put into the body is opposed by many health groups,  
10 such as the American Public Health Association, the  
11 California Medical Association, and Health Care  
12 Without Harm.

13 (17) Highly effective and durable alternatives to  
14 mercury-based dental fillings exist, but many pub-  
15 licly and privately financed health plans do not allow  
16 consumers to choose alternatives to dental amalgam.

17 (b) ENVIRONMENTAL FINDINGS.—In addition to the  
18 findings of subsection (a), the Congress finds as follows:

19 (1) Mercury wastewater released from dental  
20 clinics has been shown to fail the Environmental  
21 Protection Agency's toxicity characteristic leaching  
22 procedure and, therefore, is regulated as hazardous  
23 waste.

24 (2) Research from the Naval Dental Research  
25 Institute indicates that, when discharged to the envi-

ronment, conditions may be right for waste dental mercury to methylate, become bioavailable, and subsequently biomagnify in fish as methyl mercury, the most toxic form of mercury.

(3) Forty-eight States, the District of Columbia, and the United States Territory of American Samoa have issued 2,362 fish consumption advisories to their residents due to mercury contamination.

(4) The Food and Drug Administration has issued fish consumption advisories due to levels of mercury in commercially-caught fish and, in January 2001, warned pregnant woman and young children not to eat certain marine fish.

(5) According to the Environmental Protection Agency, United States dentists use approximately 34 tons of mercury per year.

(6) A report issued on June 5, 2002, by the Mercury Policy Project, the Sierra Club, Health Care Without Harm, Clean Water Action, and the Toxics Action Center stated that, because of mercury fillings, dental offices are now the leading source of mercury in the Nation's wastewater.

(7) Mercury from dental amalgam can enter the environment during any point of the product's life-

1 cycle. This includes placement or removal of fillings;  
2 through bodily excretions; when sewage sludge is in-  
3 cinerated, spread on crops, or dumped in land fills;  
4 when vapor is released or land filled; when vapor is  
5 released directly from the filling (which increases  
6 with brushing, chewing, and consuming hot foods or  
7 salt); and during cremation. Currently there are no  
8 requirements for mercury capture before or during  
9 cremation.

10 (8) The Association of Metropolitan Sewerage  
11 Agencies reported human wastes from individuals  
12 with dental amalgam fillings to be the most signifi-  
13 cant source of domestic mercury entering publicly  
14 owned treatment works, greater than 80 percent of  
15 the total contributing factors.

16 (9) According to the Association of Metropoli-  
17 tan Sewerage Agencies, removal of mercury from  
18 publicly owned treatment works has been shown to  
19 cost \$10,000,000 to \$100,000,000 for every pound  
20 removed.

21 (10) Mercury use by the dental industry in-  
22 creased from 2 percent in 1980 to 22 percent of the  
23 total use of mercury in the United States in 2001,  
24 because of drastic declines in mercury use by other  
25 industries over that period.

1           (11) Amalgam restorations were estimated to  
2           be 55 percent of the total mercury product reservoir  
3           in 2004 by the Environmental Protection Agency,  
4           and will therefore be a source of environmental con-  
5           tamination into the future.

6           (12) According to a joint study by the Environ-  
7           mental Protection Agency and the Cremation Asso-  
8           ciation of North America, approximately 238 pounds  
9           of mercury, mostly from dental amalgam fillings,  
10          were released from crematoria nationally in 1999.

11          (13) Cremation is chosen in approximately 30  
12          percent of all deaths, and this percentage is expected  
13          to increase every year.

14          (14) According to industrial hygiene surveys, 6  
15          to 16 percent of dental offices exceed the exposure  
16          levels for air mercury permitted by Occupational  
17          Safety and Health Administration standards.

18 **SEC. 3. PROHIBITION ON INTRODUCTION OF DENTAL**  
19 **AMALGAM INTO INTERSTATE COMMERCE.**

20          (a) PROHIBITION.—Section 501 of the Federal Food,  
21          Drug, and Cosmetic Act (21 U.S.C. 351) is amended by  
22          adding at the end the following:

23          “(j) Effective January 1, 2009, if it contains mercury  
24          intended for use in a dental filling.”.



1       (b) TRANSITIONAL PROVISION.—For purposes of the  
2 Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301  
3 et seq.), effective December 31, 2007, and subject to the  
4 amendment made by subsection (a), a device that contains  
5 mercury intended for use in a dental filling shall be consid-  
6 ered to be misbranded, unless it bears a label that provides  
7 as follows: “Dental amalgam contains approximately 50  
8 percent mercury, a highly toxic element. Such product  
9 should not be administered to children less than 18 years  
10 of age, pregnant women, or lactating women. Such prod-  
11 uct should not be administered to any consumer without  
12 a warning that the product contains mercury, which is a  
13 highly toxic element, and therefore poses health risks.”.

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