

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.

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

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-

1 ronment, conditions may be right for waste dental
2 mercury to methylate, become bioavailable, and sub-
3 sequently biomagnify in fish as methyl mercury, the
4 most toxic form of mercury.

5 (3) Forty-eight States, the District of Colum-
6 bia, and the United States Territory of American
7 Samoa have issued 2,362 fish consumption
8 advisories to their residents due to mercury contami-
9 nation.

10 (4) The Food and Drug Administration has
11 issued fish consumption advisories due to levels of
12 mercury in commercially-caught fish and, in Janu-
13 ary 2001, warned pregnant woman and young chil-
14 dren not to eat certain marine fish.

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

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

24 (7) Mercury from dental amalgam can enter the
25 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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