



OLR RESEARCH REPORT

December 23, 2011

2011-R-0501

USE OF MERCURY AMALGAM

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You asked if state law prohibits dentists from using mercury amalgam fillings.

SUMMARY

State law does not prohibit the use of mercury amalgam fillings by dentists provided it is used for dental purposes. In 2002, the legislature enacted the “Mercury Education and Reduction Act” ([PA 02-90](#), codified as [CGS § 22a-612 et seq.](#)), which among other things, bans the sale of mercury-added products containing more than 100 milligrams or 50 parts per million (ppm) of mercury. Other provisions of the law allow the continued use of elemental mercury (mercury in its pure form), but impose restrictions on its sale and distribution, including to dentists.

A 2005 declaratory ruling by Department of Energy and Environmental Protection (DEEP, formerly the Department of Environmental Protection) commissioner Gina McCarthy found that the ban on the sale of certain mercury-added products does not apply to dental amalgam because it contains elemental mercury, the use of which is allowed under certain conditions. She also found it was not the legislature’s intent to ban dental amalgam when enacting the law.

The law allows dentists to use mercury amalgam only for dental purposes and requires dentists to store, use, handle, and dispose of mercury according to state and federal law and DEEP best management practices. As part of its best management practices, DEEP requires all dental offices using mercury amalgam to provide a copy of a DEEP brochure to patients that explains the advantages and disadvantages to human health and the environment of the use of mercury amalgam fillings and alternative filling materials. (A copy of the brochure is attached.)

MERCURY AMALGAM

Mercury comprises between 40% and 50% of the dental amalgam used in silver fillings. It is used to bind together the mixture of silver, tin, copper and other metals that make up the rest of the filling. Some dentists, environmental organizations, other interest groups, and members of the public oppose the use of mercury amalgam because of the potential negative health and environmental affects. According to the U.S. Environmental Protection Agency, high levels of mercury exposure can harm the brain, heart, kidneys, lungs, and immune system.

MERCURY EDUCATION AND REDUCTION ACT

In 2002, the legislature enacted the “Mercury Education and Reduction Act,” which declares mercury to be a toxic pollutant that accumulates in the environment and calls for the virtual elimination of manmade mercury. The law, among other things, regulates the sale and distribution of mercury and products that contain it. It requires labeling of certain products to which mercury has been added, and prohibits people from selling or distributing mercury-added products unless the manufacturers have provided DEEP with plans for their collection.

The law bans the sale of mercury-added products containing more than 100 milligrams or 50 ppm of mercury. Other provisions of the law allow the continued use of elemental mercury, but impose restrictions on its sale and distribution.

The law allows dentists to use mercury amalgam only for dental purposes and requires dentists to store, use, handle, and dispose of mercury according to state and federal law and DEEP best management practices. The law also prohibits a vocational dental education or training school from using mercury amalgam unless it has developed and implemented a DEEP-approved plan. The plan must include best management practices that (1) prevent improper mercury discharge into

state waters; (2) include pollution abatement plants or sewage systems; (3) establish procedures to properly handle, recycle, or dispose of mercury and amalgam waste; and (4) educate students about mercury hazards and best management practices.

DEEP DECLARATORY RULING

On September 8, 2005, then-DEP commissioner Gina McCarthy issued a declaratory ruling on the use of dental amalgam containing mercury. This was in response to assertions made by public interest groups that the law bans the use of dental amalgams with mercury content exceeding 100 milligrams or 50 ppm.

The commissioner ruled that the law allows dentists to continue using dental amalgam. Among other things, she found that (a) legislators did not intend to ban the use of mercury when they approved the act; (b) the law specifically allows its use in dental schools and by dentists under certain conditions; and (c) it is properly considered elemental mercury rather than a mercury-added product, and therefore its sale or use is not banned by law.

RESOURCES

Connecticut Department of Energy and Environmental Protection website,
http://www.ct.gov/dep/cwp/view.asp?a=2708&q=323992&depNav_GID=1638, website last visited on December 21, 2011.

Connecticut Department of Energy and Environmental Protection, "The Environmentally Responsible Dental Office: A Guide to Proper Waste Management in Connecticut Dental Offices,"
http://www.ct.gov/dep/lib/dep/mercury/gen_info/NWF-CTdentalreport.pdf, website last visited on December 21, 2011.

Connecticut Department of Energy and Environmental Protection, "Fillings: The Choices You Have, Mercury Amalgam, and Other Filling Materials,"
http://www.ct.gov/dep/lib/dep/mercury/gen_info/fillings_brochure.pdf, website last visited on December 21, 2011.

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