



# Dental Mercury Amalgam Fillings

## An Environmental and Health Issue

### DENTAL SILVER MERCURY AMALGAM CONTAINS



### WHEN IS MERCURY RELEASED FROM AMALGAMS FILLINGS?



**chewing, clench or grind**



**with increases in temperature**  
(eg. coffee or tea)



**brushing your teeth**

### SOURCES OF MERCURY FOR HUMANS ASSESSED BY THE WORLD HEALTH ORGANISATION (WHO)

<b>1   Dental Amalgam</b>	3.0-17 mcg/day (Hg vapour)	<b>3   Other Food</b>	0.3 mcg/day (Hg Inorganic)
<b>2   Fish and Seafood</b>	2.3 mcg/day (Hg Methyl)	<b>4   Air and Water</b>	Negligible amounts

### HOW DOES MERCURY AFFECT OUR HEALTH?

Mercury is released from dental amalgam as vapour and particles. Mercury vapour is invisible, odourless, tasteless and 80% is absorbed through the lungs into the bloodstream.

Mercury interferes with normal biological processes in the body and is primarily stored in the kidney, liver and brain. It can adversely affect important biological compounds called thiols which are found in hormones, enzymes, amino acids, red blood cells and more.

Within the body the so-called inorganic harmless mercury undergoes methylation making it bioavailable and potentially more toxic.

### SYMPTOMS OF MERCURY POISONING CAN OCCUR IN:

- Muscles, skeleton and joints
- The immune system
- Oral cavity, pharynx, nasal cavity, middle ear
- Airways, heart, blood supply
- Reproductive system
- Spinal cord and brain including olfactory (smell), auditory (hearing) and visual (sight) lobes.

### TOXIC WASTE - DISPOSE OF WITH CARE

If a dentist uses dental mercury amalgam fillings, the Environmental Protection Agency (EPA) legislates that they are not allowed to dispose of the scrap (*i.e. left-over material*) in the garbage, toilet or sink. It must be disposed of as toxic waste as it poses a threat to our environment. At SHDC we recognise the potential for mercury to adversely affect your health as well as the environment.

## OUR APPROACH

At SHDC we have not used dental mercury amalgam fillings since 1987 and have recognised since that time the importance of care in their safe removal. Whenever amalgam is removed it is recommended by the National Health & Medical Research Council (NHMRC 2002) that a rubber dam is used, copious water, additional suction, separate nasal air mask and a special removal procedure is employed.

*We take extreme care in the removal of mercury amalgam fillings, whether large or small.* We achieve this by routine use of rubber dam, copious water, tungsten carbide burs, high-speed suction, separate air source and air filters.



## RUBBER DAM USE IS IMPORTANT BECAUSE IT..

- Protects your airway** from debris associated with removing old restorations so you don't swallow or inhale the mercury.
- Guards soft tissue** by protecting tongue, lips and cheeks.
- Allows you to **truly relax**.
- Improves access and visibility** – making it much easier for the dentist and assistant to see what they are doing
- Allows for a **better and cleaner placement of the restoration**.

## THE ALTERNATIVES

Ceramic is the most biocompatible, strongest and longest lasting alternative to dental mercury amalgam. If the filling is not too large, a composite resin is also a good alternative.



## MERCURY DETOX

Following removal of the amalgam fillings, removing the mercury from the body is achieved through various dietary, supplementary and lifestyle means. This can be done through our surgery or more often in consultation with your referring health practitioner or medical practitioners, naturopath, chiropractor or osteopaths with whom we work.