



INFORMATION

Mercury and Dental Workers

Dental workers come into contact with mercury daily. Amalgam used during tooth reconstruction is a mixture of silver and mercury. The mercury is in the form of liquid metal, finely dispersed throughout the silver. Freshly mixed amalgam still releases some mercury. Dental workers can have severe health effects due to overexposure.

What Mercury Can Do To You

Victims of mercury exposure often become irrational, excitable, unable to concentrate, indecisive or depressed. They may describe the symptoms as tiredness, weakness, headache, loss of memory, drowsiness or insomnia. Tremors in hands, lips, head, tongue or jaw are common. There may also be effects on digestion, eyesight and the urinary system. A mother may expose her unborn child because the metal passes through the placenta.

How You Can Protect Yourself

Prevent absorption through the skin

- Wear medical gloves licenced by Health Canada.
- Use sealed, premixed, disposable capsules of amalgam preparation. Pour the combined metals onto a transfer dish after mixing and handle using a transfer probe. Making amalgam by putting silver and mercury into a reusable capsule should be avoided because of the high risk of spillage or exposure.
- Avoid the squeeze cloth technique because it requires too much handling and unprotected hands may receive a high dose of mercury.
- Avoid skin contact when cleaning the traps of suction equipment because amalgam may be present.

Prevent mercury from being inhaled

- Prevent mercury from touching hot surfaces because an increase in temperature causes a rapid increase in mercury vapour.

- Avoid accumulation of amalgam debris by routine cleaning of operatory drawers, amalgam mixers, and chairs. Carpets in the operatory are not advised because it is almost impossible to remove spilled mercury or amalgam fragments from them.
- Store unused amalgam under liquid (mineral oil, glycerin or commercial preparations are recommended) to minimize vapour release.
- Wear dust masks to prevent inhaling fragments.
- Don't overlook the vacuum cleaner as a potential source of exposure. Amalgam or pure mercury trapped in the bag is exposed to heat from the motor that causes any mercury present to be vapourized at a faster rate. If a household style vacuum cleaner is used, the bag should be changed frequently.

Prevent ingestion

- Avoid eating in areas of possible contamination.
- Wash your hands before eating or smoking.
- Store food and cigarettes away from the work area.

How Do You Handle Spills?

Mercury spills will occur. Equipment and procedures should be in place to handle clean ups. Visible droplets can be removed by a suction probe or mercury vacuum. If a spill gets into floor cracks or under baseboards, there are commercial products that will change mercury to a less hazardous form that can be easily cleaned up with water. Equal parts of lime and flowers of sulfur made into a paste with water and left for 24 hours on the spill area will produce the same effect. If spills occur frequently, special mercury vacuum cleaners are available that will eliminate vapour from the exhausted air. Porous surfaces such as carpets and furnishings are the hardest to clean up. Cleaning methods will likely be ineffective and may discolour or ruin the surface.

For more information, contact the Occupational Health and Safety Division:

Regina Inquiry: 787-4496

6th Floor, 1870 Albert Street, S4P 3V7

Toll Free: 1-800-567-7233

Saskatoon Inquiry: 933-5052

8th Floor, 122-3rd Avenue North, S7K 2H6

Toll Free: 1-800-667-5023

