

Some facts and figures

Mercury is toxic to human health and environment

Dental amalgam is composed of approximately 50% elemental mercury and of 50% silver-zinc-tin-copper alloy

An estimated 250-350 metric tonnes of mercury was used for dental amalgam in 2005, representing approximately 10% of global consumption, or 20% of total global mercury consumption in products

Dental amalgam is often the largest source of mercury in municipal wastewater: in the soil via wastewater sludge, land disposal and the burial of deceased persons with fillings. It is also an important source of mercury air pollution from wastewater sludge incineration and cremation due to the amalgam retained in the teeth of the deceased

Mercury-free dental restoration materials reduce mercury pollution and contribute to preserve our ecosystems for future generations

Contacts:

World Health Organization (WHO)
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Switzerland
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United Nations Environment Programme (UNEP)
Division of Technology, Industry & Environment
Chemicals Branch
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For further information, please visit:
www.who.int/oral_health
www.unep.org/hazardoussubstances

This brochure was developed as part of the East Africa Dental Amalgam Phase-down Project.

Dental amalgam and its impact on the environment

Information for National Dental Associations

Major responsibilities

Information dissemination on dental care and materials

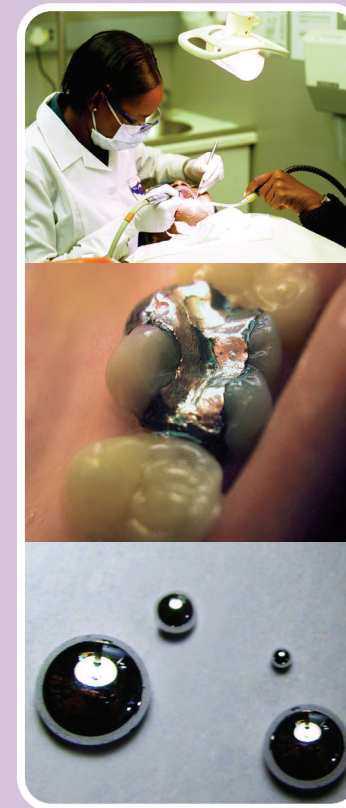
Support dentists in the provision of preventive dental care

Contribute to environmental preservation

Research and development

Capacity building

Dental caries is a major public health problem in many countries, despite much effort in health promotion and disease prevention





Information dissemination on dental care and materials

- Dental materials are often needed to restore teeth to normal function following dental caries
- Encourage dentists to adopt a minimal intervention approach (MIA) to dental care of the patient, such as remineralization of non-cavitated lesions, minimal operative intervention of cavitated lesions, repair of defective restorations and patient education
- Advocate for the availability and use of the full range of quality and affordable materials appropriate to the restoration required through effective collaboration with the research community, governments, manufacturers, educators and oral health practitioners
- Disseminate information about the importance of oral health promotion and disease prevention as the most effective manner of maintaining oral health and reducing the need for dental restoration

Support dentists in the provision of preventive dental care

- Assist dentists in building oral health care capacity and infrastructure

Contribute to environmental preservation

- Increase awareness and recognition of the environmental implications of mercury
- Adopt best management practices (BMP) that have been developed to manage waste, in particular amalgam, and adhered to in dental practices

Research and development

- Encourage scientists to do research on new alternative dental materials
- Promotion of research is needed to assess the safety and adverse effects of all dental restorative materials
- Enhance cooperation between material scientists, clinical scientists, public health scientists, toxicologists and the private sector

Education and capacity building

- Conducting Continuing Professional Development (CPD) on dental restorative waste, Best Management Practice (BMP) and emphasize the consequences of improper management of dental waste
- Collaborate with government agencies and inform dentists about BMP and their implementation in clinical practice

Minamata Convention on Mercury

The Minamata Convention on Mercury is a global legally binding instrument, which aims to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

The Convention was adopted by governments during a conference in Minamata, Japan in October 2013.

For further information, please visit:
www.mercuryconvention.org
www.unep.org/hazardoussubstances