Workshop on
Mercury-Free Dentistry

July 20, 2025 | Raipur, Chhattisgarh

Toxics Link
for a toxics-free world

Workshop on Mercury-Free Dentistry – Raipur, Chhattisgarh

July 20, 2025, Babylon International, Raipur
Organised by: *Toxics Link in collaboration with the Indian Dental Association (IDA), Chhattisgarh State Branch*

Introduction

A meeting to push 'Phase Out of Mercury Amalgam' was organised by Toxics Link, in collaboration with the Indian Dental Association (IDA) Chhattisgarh State Branch on July 20, 2025 at Babylon International, Raipur. The meeting aimed to raise awareness among dental professionals about the health and environmental risks posed by mercury in dental amalgam and promote the transition towards mercury-free alternatives in dentistry.

Inaugural Session

The meeting was opened, on behalf of Toxics Link, by Ms. Priti Mahesh, Senior Environment and Public Health Consultant, who welcomed the participants and provided a brief background on the issue of mercury use in dentistry. She introduced Toxics Link's work and emphasised the need for sustained awareness and collaboration for successful mercury phase-out.

Mr. Satish Sinha, Associate Director, Toxics Link, then set the broader context. In his address, he highlighted the serious public health and environmental concerns related to mercury exposure. Citing examples, he emphasised that while mercury has been phased out in many sectors, dentistry remains a lagging area. He added that the current dental curriculum continues to include amalgam-based training, which conflicts with global trends.

Technical Sessions

Session 1: Minamata Convention & Paradigm Shift in Conservative Dentistry

Mr. Satish Sinha continued with the first technical session, where he elaborated on the hazards of mercury. Drawing on Toxics Link's extensive work in the area of mercury exposure, he traced the history of mercury use in India, referencing incidents such as mercury thermometer accidents, legacy contamination in Kodaikanal from thermometer manufacturing, and the continued use of mercury in unregulated products like skin- lightening creams. These examples underscored how mercury can have devastating effects when not managed appropriately.

He provided an overview of the global and national context of mercury regulation, with a specific focus on the Minamata Convention. He explained the rationale behind the global move towards mercury-free alternatives and discussed the evolution of India's position under the Minamata Convention and emphasised that safe disposal and management of dental amalgam waste remains a huge concern. He explained that the Convention calls on Parties to phase down the use of dental amalgam, and India has committed to this goal. He expressed concern over the slow pace of transition in dentistry, particularly when other sectors such as thermometers and sphygmomanometers have largely moved to mercury-free alternatives.

He highlighted the various health and environmental hazards associated with mercury use in dental amalgam and emphasised the importance of transitioning to mercury-free alternatives. He also stressed the need for regulatory action, curriculum updates, and continued engagement with dental associations and institutions to ensure long-term change. He also discussed the lack of effective waste segregation and disposal protocols for mercury waste in

dental clinics, which adds to environmental contamination. Mr. Sinha called for multi-stakeholder collaboration—between policymakers, dental educators, regulatory bodies, and civil society—to ensure a structured and inclusive path forward.

Session 2: Occupational Safety & Alternatives to Mercury Amalgam

Dr. Neeraj Kumar Chandrakar delivered an insightful presentation focusing on the **occupational health risks** faced by dental professionals due to prolonged exposure to mercury vapours. He noted that while amalgam has been valued for its durability and cost-effectiveness, its risks to practitioners and patients are not always well-communicated. Mercury vapour can be inhaled during mixing, placement, and removal of fillings, posing a danger especially in clinics lacking adequate ventilation or protective measures.

He provided compelling evidence on **chronic exposure symptoms**, which may include fatigue, tremors, neurological issues, and immunological disorders, especially with cumulative long-term contact. He urged dental professionals to adopt mercury-safe practices—such as the use of amalgam separators, personal protective equipment, and proper storage and disposal of mercury waste.

Importantly, Dr. Chandrakar showcased a wide array of **mercury-free restorative materials**, including resin composites, glass ionomer cements, and newer bioactive materials that are not only safer but offer aesthetic and functional benefits. He also presented clinical case studies from his own practice, demonstrating the effectiveness and patient satisfaction with mercury-free alternatives.

He emphasised the need to **sensitise both current practitioners and dental students** about these alternatives and encouraged IDA and academic institutions to proactively revise clinical guidelines, advocate for change in the DCI curriculum, and host regular workshops and training sessions on mercury-free practices.

Vote of Thanks

The meeting concluded with a vote of thanks by Dr. Vivek Lath, Secretary, IDA Chhattisgarh State Branch, who appreciated the efforts of Toxics Link and reiterated the branch's support for similar awareness programs in the future.

Way Forward

The workshop underlined the urgency of phasing out mercury-based dental amalgam in India in line with global trends. It also emphasised the role of dental associations, regulatory bodies, and educational institutions in pushing for curriculum change, enabling practitioner awareness, and adopting safer, environmentally friendly alternatives. Toxics Link and IDA Chhattisgarh committed to continued dialogue and capacity building to support this transition.