

Effect of Iodine on Mercury Concentrations in Dental-unit Wastewater

Dental amalgam is a mixture of mercury, silver, tin, and copper. Mercury typically makes up about 50% of it. The amalgam is used to provide the dental patient with a strong durable filling. Some of the dental amalgam may end up in the dental wastewater along with the water used for rinsing. Iodine is often used to control bacteria in dental-unit fresh waterlines. Could iodine effect mercury concentrations in the wastewater?

ISTC partnered with researchers at the Naval Institute for Dental and Biomedical Research to answer that very question. The team found a linear correlation between mercury and iodine. Mercury levels were three times higher than the controls (no iodine) after just 24 hours. The researchers suggest that the data shows that iodine can increase dissolved mercury concentrations in dental wastewater.



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