NEW YORK, USA/LEIPZIG, Germany: Scientists in the US have warned of the risks of exposing young children to large amounts of fluoride. In a study published in the October edition of the Journal of the American Dental Association they claim that an increased intake of the mineral fluoride can lead to a higher risk of developing fluorosis, a condition that discolors and weakens teeth.

The findings confirm earlier evidence indicating a link between dental fluorosis and greater intake of fluoride in early life. The latest study, conducted by researchers from the University of Iowa in the United States, found that a greater fluoride intake can lead to reconstituted powder, a popular choice for infant food in the US, and other beverages with added water increased fluorosis risk in children between the ages of three and nine months. They suggested avoiding the ingestion of additional fluoride through consumption of these mixtures in order to reduce the prevalence of the condition nationwide.

According to the US Centers for Disease Control and Prevention, one-third of children between the ages of 12 to 15 years in the US suffer from some form of fluorosis. The country also has the highest occurrence of fluoridated water in the world.

New evidence links mercury to Alzheimer’s disease, researchers associated with universities in Boston (USA), Freiburg/Berlin and Frankfurt (Oder), both in Germany, claim that symptoms of the condition were reproduced or accelerated when brain tissue was exposed to inorganic mercury, the main ingredient of amalgam.

Earlier studies of low-dose human exposure, such as to dental amalgam, and their staff, have shown that exposure to mercury is correlated with long-term neurological or psychological harm. The new review is one of the first that has found a systematic link between mercury found in Alzheimer’s patients. According to Prof. Harald Walth, Viadrina European University in Frankfurt (Oder), patients with silver fillings are exposed to 1 to 22 µg mercury per day, of which the majority accumulates in the brain. The metal binds with selenium, a substance responsible for preventing oxidative stress, which can lead to cell death and early ageing. Removing mercury from medical and ecological cycles could slow down cell death and prevent the development of dementia and possibly other forms of neurological disorders, including Parkinson, he added.

“The situation is similar to the early 1970s regarding smoking: substantial experimental evidence existed, but human studies were inconclusive at the time and were under attack by groups with a vested interest,” Prof. Walth told Dental Tribune Asia Pacific. “To wait until irrefutable evidence has accumulated is not the best option in view of what we already know about the toxic potential of mercury.”

Amalgam is still the most common type of filling used by dentists worldwide. It is banned in Sweden and restricted in Norway and Denmark.

(Edited by Daniel Zimmermann, DTT)