

An approach to trace metals in milk

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Abstract

The consumption of cow's milk is very popular worldwide because of its medicinal and nutritional properties. Consumption of cow's milk in particular is associated with beneficial health effects in addition to its nutritional value. However, some essential metals can become "toxic" when their concentration is increased in the body, especially at levels 40 to 200 times higher. If intake via the food chain exceeds allowable levels, toxicity can become a serious problem. Cattle have the potential to be used as indicators of environmental contamination. Because they are poorly selective animals, cattle may become contaminated by chewing on objects containing these chemical elements or by ingesting contaminated water or food. Children are especially susceptible to the toxic effects of metal because they are highly absorbed and intoxicated with an element concentration of 50% lower than adults. Milk is known as an excellent source of Ca and provides less Zn and lower Fe and Cu contents. In recent years, milk contamination is considered as one of the most dangerous aspects. Despite increased concern and programs against pollution, very little is known about the distribution, behavior and effects of trace metals in cow's milk. This work aims to report on the presence of trace metals in milk.

Biography:

Vivianne Lúcia Bormann de Souza is a PhD. in Nuclear Energy. She has a Master degree in Biochemistry by The Federal University of Pernambuco (UFPE). She is graduated in chemical Engineering from UFRPE and in Veterinary medicine by UFRPE. She works in CNEN, Brazil.

Biography:

Dr. Wei-Kung Wang received his M.D. from National Taiwan University in 1986 and Sc.D. from Harvard School of Public Health in 1995. He is currently Professor at the Department of Tropical Medicine, Medical Microbiology and Pharmacology at the University of Hawaii at Manoa. His research focuses on dengue and other flaviviruses, virus-like particles, antibody response and vaccine development. He has published more than 65 papers in peer-review journals and has been serving on various panels of NIH grant review as well as guest editor of reputed journals as such PLoSNegl Trop Diseases.

Speaker Publications:

1. Fricke Dosimetry as a Tool to Quality Control of Photodynamic Therapy; Brazilian Journal of Radiation Science 2019 7(3), 1-10.
2. Methodology of trace metals analysis in reference, generic and similar medicines: a comparison; Brazilian Journal of Health Review 2019, 2(5), p. 3985-3993.
3. Environmental quality evaluation of soil from Pernambuco's recreational park; Brazilian Journal of Radiation Science 2018, 6(2-A), p. 1-17

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