

Health Effects of Metals and Related Substances in Drinking Water

Metals are inorganic substances that occur naturally in geological formations. Naturally occurring metals are dissolved in water when it comes into contact with rock or soil material. Some metals are essential for life and are naturally available in our food and water. Trace amounts of metals are common in water, and these are normally not harmful to your health. In fact, some metals are essential to sustain life. Calcium, magnesium, potassium, and sodium must be present for normal body functions. Cobalt, copper, iron, manganese, molybdenum, selenium, and zinc are needed.

However many of the metals and metalloids that are found in drinking water can have an adverse impact on human health. This book provides a state-of-the-art review of the health implications of metals and metalloids in drinking water and is a key reference in the risk assessment and management of water supplies. The increased urbanization and increased water demand in industrial areas has amplified the metals

problem in groundwater sources. In fact the contamination of our water resources by poisonous metals occurs largely due to human activity. These activities include industrial processes, such as electronics industry and mining activity, agricultural activities, and the dumping of wastes in landfills.

The International standard references concerning water resources are various and, though they are based on WHO guidelines, they are extremely diversified in relation to local issues and emerging problems. This report pulls the information together to provide an important reference source.

Contents:

Metals and drinking water; Metals and water resources; Metals and health; Toxic metals; Mutagenic and genotoxic metals; Carcinogenic metals; Magnesium (mg); Calcium (ca); Silicium (si); Barium (ba); Lithium (li); Sodium (na); Potassium (k); Beryllium (be); Cadmium (cd); Lead (pb); Mercury (hg); Arsenic (as); Aluminum (al); Zinc (zn); Nickel (ni); Copper (cu); Iron (fe); Silver (ag); Vanadium (v); Manganese (mn); Chromium (cr); Cobalt (co); Tin (sn); Strontium (sr); Selenium (se); Bismuth (bi); Tungsten (w); Uranium (u) and depleted uranium (du); Radon (ra); Metals Regulations And Guidelines to Some Countries.

Also available as part of your Water Intelligence Online subscription

Publication Date: 15/11/2013
ISBN13: 9781780405971
eISBN: 9781780405988
Pages: 150

Print:
Standard price: £126 / €158 / \$189
Member price: £95 / €118 / \$142

eBook:
Standard price: £126 / €158 / \$189
Member price: £95 / €118 / \$142

