

The Role of Heavy Metals in the Development of Chronic Health Conditions

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Abstract: *While many heavy metals have biotoxic effects on human biochemistry, other heavy metals are nonetheless important as trace components. Therefore, it's important to comprehend the mechanisms such as concentrations and oxidation states that lead to their deleterious effects. In addition, because the environment fundamentally sustains life, it is critical to understand their origins, leaching procedures, chemical transformations, and patterns of deposition. According to literature sources, these metals are released into the environment by both natural and man-made processes, including industrial and mining operations as well as vehicle emissions. They either wash away via run-off into surface waters, resulting in water and subsequently soil contamination, or they leach into the subterranean fluids, traveling along water routes and finally depositing in the aquifer. Exchange and coordination processes are often the cause of poisoning and toxicity in ecosystems. They damage their structures and impede the bioreactions that carry out their activities when consumed, forming stable biotoxic chemicals. This essay examines a few heavy metals, their effects, and how biotoxic they are to humans*

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