

# **Arsenic and diabetes and hypertension in human populations: A review**

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摘要

## **Abstract**

Long-term exposure to ingested arsenic from drinking water has been well documented to be associated with an increased risk of diabetes mellitus and hypertension in a dose-response relationship among residents of arseniasis-endemic areas in southwestern Taiwan and Bangladesh. An increased risk of self-reported hypertension but not diabetes was reported in a community-based study of residents who consumed drinking water with a low level of arsenic. Increased glycosylated hemoglobin level and systolic blood pressure were observed in workers occupationally exposed to arsenic. Inconsistent findings of arsenic and diabetes in occupational studies may result from the healthy worker effect and the variation in exposure measurement, age composition, number of patients, accuracy in diagnosis and classification of underlying causes of death, competing causes of death, and method to detect diabetes. The dose-response relationship and toxicological mechanisms of arsenic-induced diabetes and hypertension need further elucidation.