

## عنوان مقاله:

The potential risk of heavy metals on human health due to the daily consumption of vegetables

## محل انتشار:

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## نویسندگان:

Amir Hossein Baghaie - *Department of Soil Science, Arak Branch, Islamic Azad University, Arak, Iran*

Mohammad Fereydoni - *Department of Soil Science, Arak Branch, Islamic Azad University, Arak, Iran*

## خلاصه مقاله:

Background: Vegetables are one of the most important components of daily food. Thus, this research was done to evaluate the potential risk of heavy metals on human health due to the consumption of vegetables distributed in the fruits and vegetables central market of Arak, Iran. Methods: In this study, a total 45 samples from edible parts of parsley, mint, chard, fenugreek, cress, basil, coriander, lettuce, and cabbage distributed in the fruits and vegetables central market of Arak were randomly collected and the concentration of heavy metals including lead (Pb), cadmium (Cd), and arsenic (As) in these crop plants was measured using atomic absorption spectrophotometer (AAS). The non-carcinogenic risk of heavy metals intake through the consumption of the studied vegetables was evaluated for male and female using the Environmental Protection Agency (EPA) method. Results: The highest and lowest Pb daily intake and Pb risk index was related to the consumption of cabbage and basil, respectively. And the highest daily intake of Cd and As was related to lettuce consumption, while the lowest daily intake of these metals was related to the consumption of coriander. Among the studied heavy metals, As had the highest hazard quotient (HQ) for non-carcinogenic diseases. The highest HQ belonged to As through lettuce consumption and the lowest one belonged to As through coriander consumption (58 g/day). The HQ for female was higher than that for male. Conclusion: According to the results, the total hazard quotient (THQ) of non-carcinogenic diseases from the total studied .vegetables was above the standard level. On the other hand, the HQ for female was higher than that for male

## کلمات کلیدی:

Human, Vegetables, Risk Factor, Arsenic, Lead

## لینک ثابت مقاله در پایگاه سیویلیکا:

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