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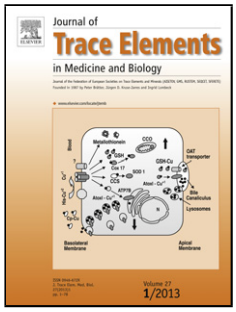


Title: High serum selenium levels are associated with impaired fasting glucose and elevated fasting serum glucose in Linyi, China

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# High serum selenium levels are associated with impaired fasting glucose and elevated fasting serum glucose in Linyi, China

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Highlights

- This is a large observational study about the association among high serum selenium, impaired fasting glucose and elevated fasting serum glucose which contains 8142 participants in China.
- This study takes basic information, physical examination and laboratory detection information as concomitant variable and is special to add dietary information as concomitant variable.

Background
The relationship between selenium level and impaired fasting glucose or elevated fasting serum glucose remains controversial. This study aimed to evaluate these associations in China.
Methods
This observational population study adopted a cluster sampling approach to enroll participants. Baseline information on selenium categories was tested using one-way analysis of variance and Kruskal–Wallis equality-of-populations rank tests. Multivariable logistic regression was used to investigate the association between serum selenium level and impaired fasting glucose or elevated fasting serum glucose.
Results
The mean serum selenium concentration was 121.5 μg/L which in a relatively high baseline Se status. Differences were observed among individuals with normal,