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**Fruit and Vegetable Consumption and Their Association With the Indicators of Iron and Inflammation Status Among Adolescent Girls**

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**Abstract**

**Background:**The objective of this study was to identify an association among dietary components, iron, and inflammatory status among adolescent girls.

**Method:**Dietary information for 85 adolescent girls was collected through food frequency questionnaires. Biomarkers of iron and inflammatory status were analyzed.

**Results:**We found that 28.2% of adolescent girls had anemia and 65.9% girls were iron-deficient. Girls who did not consume guava had 3.8-fold (95% confidence interval =1.1-9.4; p = 0.020) increased the risk of having low serum iron levels. Girls who consumed amaranth had significantly (p = 0.024) higher serum hepcidin levels (n = 44; 129.7 ± 81.40 pg/mL vs n = 41; 94.6 ± 55.8 pg/mL) as well as ferritin levels (n = 44; 19.7 ± 16.4 µg/L vs n = 41; 14.0 ± 10.2 µg/L). Overall consumption of fruits and green leafy vegetables among girls significantly affects their iron status.

**Conclusions:**Regular consumption of vitamin C-rich fruits and green leafy vegetable intake are imperative for improvement of iron status among adolescent girls.

**Keywords:**Anemia; green leafy vegetables; hepcidin; iron deficiency; vitamin C.

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