



## **Elemental Profile and Hb Content in Whole Blood of Adolescents from Baramati Region, Pune, Maharashtra**

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Accepted on 12<sup>th</sup> July 2016

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### **ABSTRACT**

*Levels of Ca, Mg, Zn, Fe and Cu were determined in whole blood samples of 147 adolescent participants aged between 13 and 16 years from Baramati region, Pune. The analyses were done using Atomic Absorption Spectroscopy and ICP-AES techniques. Haemoglobin content was analysed using Sahli's method. It is observed that 80% of the subjects suffered from various degrees of anaemia. From the Fe and Cu levels in whole blood, it was observed that 94 % and 81.9 % of the participants were deficient in iron and copper respectively. Zn, Mg and Ca levels were found to be higher than the reference range among 47.5 %, 54% and 59.5 % of the subjects. The obtained data was analysed using the software IBM SPSS Version 20. Fe and Cu showed significant correlation ( $r=0.353$  at  $p<0.05$ ). The study reveals that the subjects suffer from iron deficiency and will be prone to subsequent nutritional disorders.*

**Keywords:** Major elements, Trace elements, SPSS, Haemoglobin.

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