Mineral elements are important for fetal growth Calcium and magnesium are necessary for skeletal development and fetal mineralization . They have many metabolic functions .

Iron is required for cellular growth and multiplication . It is essential to maintain hematopoietic system .

The aim of this study is to evaluate the effect of essential trace elements on anthropometric measurements .

The present study included 100 newborns (24 of weight less than 2500 gm , 58 of weight from 2500 to 4000 gm and 18 of weight more than 4000 gm) .

All infants were subjected to :-

* Maternal history .
* Clinical examination .
* Anthropometric measurements (weight , length , head circumference & midarm circumference)
* Collection of cord blood samples to measure plasma calcium , magnesium and iron .

This study revealed a statistically positive correlation between Ca , Mg and Fe with anthropometric measurements .

Levels of Ca , Mg and Fe were significantly lower in preterm group than fullterm infants .

It also showed a relation between levels of Ca and Mg .