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## Effect of Zinc supplementation on physical growth of school age children

Prof Ashraf mohammadzadeh<sup>1</sup> .Dr Ezaat Khodashenas<sup>2</sup> .Dr Mahdi Sohrabi<sup>3</sup> .Dr Ahmadshah Farhat<sup>2</sup> .Mr Jafar Mohammadi<sup>3</sup>

### Abstract:

Introduction Zinc is a trace element that necessary for growth and development, zinc deficiency is prevalent in many developing countries. The true prevalence of the mild zinc deficiency is not known because of the nonspecific symptoms and imprecise diagnostic methods. Few studies about zinc and its effects are in developing countries. The purpose of this study was to determine the effect of zinc supplementation on physical growth in school age children. Materials & Methods In a randomized, double-blind, placebo-controlled trial 45 boys at school age (7-9 year) were elected. They were supplemented with one dose 20 mg of zinc sulfate (case) or placebo (control) daily in one dose for 6 months. Weight, height, head circumference, and arm circumference were measured, before and after intervention. Nutritional states of children were controlled. Results Significant effects on height were seen, in the children after zinc supplementation over the 6 month period ( $p=0.008$ ) but there were no significant deference between weight, head circumference, and arm circumference before and after zinc supplementation between two groups ( $p=0.97$ ,  $p=0.21$ ,  $p=0.06$  respectively) Conclusion On the basis of this study, zinc supplementation improved height, in the children of primary school and should be considered for populations at risk for zinc deficiency.

**Keywords:** zinc supplement, physical growth

1) neonatal research center of Mashhad, University of medical science : mohammadzadeha@mums.ac.ir

2) Neonatal research center of Mashhad, University of medical science

3) Ferdowsi university of Mashhad