

Calcium status of adolescent girls in relation to economic background

■ VIBHA BHATNAGAR, RICHA SONI AND NIDHI KALRA

Received: 18.04.2015; Revised: 21.04.2015; Accepted: 03.05.2015

■ **ABSTRACT** : Adequate intake of calcium is important for skeletal growth. Low calcium intake during adolescence may lead to decreased bone mass accrual thereby increasing the risk of osteoporotic fractures in later stages of life. The aim of the present study was to assess dietary calcium and serum calcium of adolescent girls from different economic background. One eighty adolescent girls (10-15years) were selected from government and private schools. 24 hour dietary recall and food frequency questionnaire were used to evaluate intake of calcium and Calcium Arsenazo Reagent Kit was used to measure serum calcium. The mean calcium intake was significantly different in all three groups with maximum intake in girls from High Income Group (HIG) (1238.81 mg/day) and lowest in Low Income Group (LIG) girls (447.87 mg/day). Although the main source of calcium in all three groups was dairy products, the quantity of intake differed considerably. Despite low calcium intake, serum calcium was found normal in the subjects from LIG. Measures need to be taken to rectify low calcium intake in LIG. Bone mineral density is better indicator of calcium status than serum calcium.

■ **KEY WORDS**: Adolescent, Osteoporosis, FFQ, BMD, HIG, LIG

■ **HOW TO CITE THIS PAPER** : Bhatnagar, Vibha, Soni, Richa and Kalra, Nidhi (2015). Calcium status of adolescent girls in relation to economic background. *Asian J. Home Sci.*, 10 (1) : 174-179.

See end of the paper for authors' affiliations →

RICHA SONI

Department of Foods and
Nutrition, College of Home
Science, Maharana Pratap
University of Agriculture and
Technology, UDAIPUR
(RAJASTHAN) INDIA
Email : richasoniricha@gmail.com