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**LAMYAA ABOUZAIID**  
KING FAHAD MEDICAL CITY, Saudi Arabia

## **AGE AND MILK CONSUMPTION ARE ASSOCIATED**

### **Abstract:**

Background: There is little evidence published on prevalence of vitamin D deficiency among Saudi women, in spite of the widespread food fortification and the excellent opportunity of available sun light all over the year. The present cross-sectional study aims to determine the prevalence and risk factors of vitamin D deficiency among premenopausal women visiting commercial centers in Riyadh City. Materials and Methods: A quasi-random technique was employed in the recruitment of subjects from various commercial Malls in Riyadh last May-November, 2012. A total of 256 subjects filled a general questionnaire, height and weight were measured and blood extracted ascertaining total 25-hydroxyvitamin D, calcium, phosphorous and alkaline phosphatase from a vitamin D External Quality Assessment (DEQAS)-certified laboratory. Results: Vitamin D deficiency ( $< 50$  nmol/L) was noted in 200 (77.6%) of subjects. Age and milk consumption were the significant predictors of vitamin D status, with 33.9% of variance perceived ( $p < 0.001$ ). Increased BMI, being married and the presence of muscle pain were all significantly associated with vitamin D deficiency. Conclusion: Nearly 4 out of 5 premenopausal Saudi women shoppers harbor vitamin D deficiency and this is influenced not by sun exposure, but by age and milk consumption. It is clear that general female public faces an imminent threat of vitamin D deficiency-related diseases unless aggressive public awareness is conducted.

### **Keywords:**

Vitamin D, vitamin D deficiency, milk consumption, ages