

## Is there a relationship between serum vitamin D with dysmenorrhea pain in young women?

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### **Abstract**

Dysmenorrhea, also known as painful periods, or menstrual cramps, is pain during menstruation. This study was done in young women that assess the association of serum vitamin D concentration and severity of dysmenorrhea pain. This descriptive-analytic study conducted on young girls referred to Shahid fakuri clinic in Tehran. Eligible girls completed the visual analog scale (VAS) and 372 participants with mild, moderate and severe dysmenorrhea completed the study. In order To measure the serum concentration of 25-hydroxy vitamin D, 5 ml of blood was be taken from participants. Most of the participants (53.22%) described their menstrual pain as moderate, while 24.73% and 22.04% of participants reported severe and mild dysmenorrhea respectively. About 37% of women had Vit D insufficiency, 36.55% had moderate Vit D deficiency, and 26.34% had severe deficiency. There was a negative correlation between the serum levels of 25(OH) D and pain indices (PV: 0.044). Positive relationship between pain intensity and waist circumference, hip circumference, fat percentage, and fat mass was observed, but between pain intensity with BMI and WHR no significant relationship was observed. According to these results supplementation with Vit D may be useful to girls for decreasing of dysmenorrhea pain.

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### **KEYWORDS:**

Dysmenorrhea; Pain intensity; Painful menstrual cramps; Painful menstruation; Vitamin D

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