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## **Evaluation of Optimum Vertical Dimension at Occlusion by a Proposed Formula Using Cephalometric Method - An In Vivo Study**

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### **ABSTRACT**

**AIM:** This study was conducted to cephalometrically analyse and verify the proposed formula to predict the Lower Facial Height(LFH).


**SETTINGS AND DESIGN:** The LFH normally is 47 degrees with a clinical deviation of 4 degrees and does not change significantly with age.<sup>7</sup> However; it will be difficult in prosthetic treatment to apply a fixed average value to all patients with reduced OVD whereas it will be more practical to evaluate the same individually.

**METHODS AND MATERIAL:** This study was conducted in Indian population for whom cephalometric tracings and various cephalometric analysis were done to predict the LFH using computer software NemoCeph ver.10.2, (NEMOTECH, Madrid, Spain). Multiple linear regression analysis with a stepwise forward approach was used to develop a prediction formula for the LFH using other measured parameters as independent variables.

**RESULTS:** The mean value of  $2.33^0 \pm 1.71^0$  difference between measured and predicted LFH was observed.

**CONCLUSIONS:** Within the limitations of this study prediction formula for Indian population is valid in every LFH range (36 to 59°), and it may also be applicable to patients in whom the LFH has deviated greatly from the average value.

**KEYWORDS:-** Occlusal vertical dimension; XI Point; Lower Facial height; Multiple linear regression analysis.

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