

An index for the measurement of normal maximum mouth opening

PURPOSE: The aim of this study was to evaluate the relationship between the width of 3 or 4 fingers of one hand and maximum mouth opening (MMO) in healthy subjects. **METHODS:** One hundred and forty dental students (age 21 to 42 years, mean 27.4 years) participated in the study. The ability of each subject to position 3 or 4 fingers, vertically aligned, between the upper and lower central incisors up to the first distal interphalangeal folds, was documented. Measurements of MMO and the width of 3 fingers (index, middle and ring fingers) and 4 fingers (index, middle, ring and little fingers) were recorded. **RESULTS:** All subjects were able to position 3 fingers (of both the right and left hands) between the upper and lower central incisors. Only 12 subjects were able to position 4 fingers (both right and left) in this way. There were no significant differences among the measurements of MMO (mean 48.8 mm), 3 fingers of the right hand (mean 47.3 mm) and 3 fingers of the left hand (mean 47.0 mm) ($p > 0.05$). However, MMO was significantly different from the width of 4 fingers of the right hand (mean 58.1 mm) and 4 fingers of the left hand (mean 57.5 mm) ($p < 0.001$). Moreover, there was a strong positive correlation between MMO and the 3-finger measurements ($p < 0.0001$). **CONCLUSIONS:** These findings strongly suggest that the ability to position 3 fingers in the mouth during dental examination is a convenient index for assessing normal MMO.