

## **A-31 A new approach to determine surface area of a dental restoration**

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The main objective of this study was to develop a more accurate method to assess the surface area of a dental restoration.

The first step was to develop a tooth chart. For this purpose impressions were taken from the upper and lower dental restorations from 20 volunteers. The impressions were cast with dental stones. The horizontal and vertical dimensions of the teeth were measured and the tooth chart was designed according to the mean values obtained. In the second study, 20 volunteers with class I amalgam restorations were selected and the outline of the restorations were drawn on the tooth chart accurately. Thereafter surface areas of the restored tooth surfaces and the restorations were measured using graticular paper.

To assess the accuracy, impressions of the restored teeth were taken and cast with epoxy resin. These casts were used to measure the surface more objectively by using a microscope with a graticular eye piece.

The correlation between assessment of surface areas clinically and objectively were statistically significant.