

## Full Mouth Rehabilitation with Minimal Tooth Preparation

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### ABSTRACT

**Background:** The conservation of irreplaceable tooth structure is paramount in any dental treatment. Even though full mouth rehabilitation is concerned with replacing what is lost, it is important not to further sacrifice what is present. Newer crown and bridge materials as well as more recent bonding systems are enabling the operator to be conservative in tooth reduction thus preserving more natural tooth structure.

**Keywords:** Full mouth, rehabilitation, emax, laminates, zirconia, cast partial, onlay clasp.

### INTRODUCTION

Due to wear and tear of teeth over the years, many patients require full mouth rehabilitations in their old age. Most restoring dentists focus on restoring vertical dimension and providing a stable occlusion but sacrifice natural tooth structure in the process. This case report shows a full mouth rehabilitation is possible without preparing all the teeth. Metal free restorations were chosen for the upper arch where the molars that showed no attrition were not selected for restoration. The lower arch showed a Kennedy's Class II modification 1 edentulous span. An onlay clasp was designed for the distal abutment of the modification space to avoid preparation of the tooth for a full coverage crown with a rest seat.

### CASE REPORT

The patient reported to the Department of Prosthodontics with a chief complaint of multiple missing teeth and yellow teeth requesting whitening for the same. On examination, generalized attrition and erosion was seen along with multiple missing teeth. A full mouth rehabilitation was proposed to the patient to address the yellowness as well as the attrition which the patient agreed to. After consideration, a decision was made to involve only the teeth that required restoration and also to limit the number of

tooth surfaces to be prepared. It was decided to restore the upper anterior teeth with laminates, upper posterior teeth with monolithic zirconia crowns not including the molars, and lower arch with a PFM bridge and CPD with an onlay clasp on the 37.



Fig 1: Pre-operative smile.



Fig 2: Pre-operative smile.

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Fig 3: Pre-operative maxillary occlusal view.



Fig 4: Pre-operative mandibular occlusal view.

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Fig 5: Maxillary tooth preparation through Gurel's Technique



Fig 6: Completed maxillary preparations.

The maxillary teeth were prepared using Gurel's technique to ensure reduction of only what is required keeping the final result in mind. The Anterior teeth were restored with eMax laminates and the posteriors with zirconia restorations.



Fig 7: Final metal free maxillary restorations.



Fig 8: Final metal free maxillary restorations occlusal view.



Fig 9: Mandibular cast framework with onlay clasp.



Fig 10: Final mandibular occlusal view.

A night guard was provided to the patient to prevent and ceramic fracture from nocturnal parafunction.



Fig 11: Post operative photograph.

## DISCUSSION

Bonded restorations usually require less tooth reduction and therefore are ideal to rehabilitate anterior teeth when required. Though Lithium Disilicate restorations have been used for posterior teeth, monolithic zirconia can provide acceptable aesthetics with the advantage of having much higher tensile strength. Thus this was chosen for the posterior teeth in this case. In situations where the bite has been raised but certain teeth show no occlusal wear, an onlay clasp can be used to avoid preparation of teeth for a full coverage crown.

## CONCLUSION

Before proceeding with any restorative prosthetic treatment, importance should be given to preserving the patients natural tooth structure. As much as modern research has provided us with cutting edge dental materials, there is no flawless replacement for natural tissue.

## CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interests regarding this article.

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