

# Cusil Denture – An Approach to Conserve Remaining Teeth

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## Abstract

Edentulism affects the patient's oral health, impairing their functional, esthetic, and psychosocial demands. When only a few natural teeth remain in the oral cavity, prosthetic rehabilitation can be accomplished with an overdenture, immediate denture, transitional denture, or complete denture after the remaining teeth have been extracted completely. When a patient does not want extraction, the cusil denture is a good option for him, which helps preserve teeth and bone. This helps the patient as natural teeth help in good proprioception and mastication. It has an elastomeric gasket that helps to hold the teeth.

**Keywords:** Bone, Cusil denture, Extraction, Macroglossia, Periodontitis, Retention, Stability.

## INTRODUCTION

Today's dentistry focuses on the preservation of oral structures, as stated by "Muller De van," who stated that the perpetual preservation of what remains is more important than the meticulous replacement of what is missing. Thus, preserving teeth and, eventually, bone can help improve the prosthesis's condition.<sup>[1]</sup> However, in developing countries, the percentage of complete edentulism is higher than the percentage of partial edentulism.<sup>[2]</sup> The consequences of tooth loss, such as bone resorption, sensory perception loss, functional and esthetic impairment, and reduced food intake, expose the patient to physiological and psychosocial challenges.<sup>[3]</sup>

In their studies, Va Crum and Rooney demonstrated that when some teeth are present, there is significantly less alveolar bone resorption than in edentulous patients.<sup>[1]</sup> Another advantage of preserving natural teeth is that it preserves the periodontium's proprioceptive ability and provides psychological benefit to the patient.<sup>[4]</sup>

Overdentures, immediate dentures, and transitional dentures are treatment options for such arches with few remaining teeth. Transitional dentures are an excellent treatment option for patients who do not want to undergo extraction or endodontic procedures. Cusil denture is a transitional denture used in dental practice but can be a simple and inexpensive treatment option.

Sometimes, a complete denture can lead to failure due to resorbed ridges, macroglossia, and knife edge ridge, hence

preserving a single tooth help in good retention of the denture. A cusil denture is a type of complete denture with holes in it to fit into the sound teeth for good retention.

## Indications

1. There are very few natural teeth left
2. Periodontally weakened teeth
3. Patients who refuse extractions or other treatments
4. When a transitional denture is required
5. Single isolated tooth.

## Contraindications

1. When there are too many natural teeth remaining
2. When there are severe soft- and hard-tissue undercuts
3. Patients with a prominent smile line
4. Bruxism.

## CASE REPORT

A 56-year-old man came to the department of prosthodontics. His chief complaint was masticatory insufficiency due to missing teeth. His medical history was not relevant. Patient teeth were extracted due to mobility caused due to

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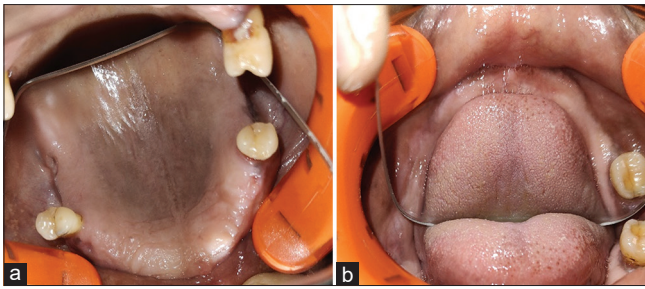
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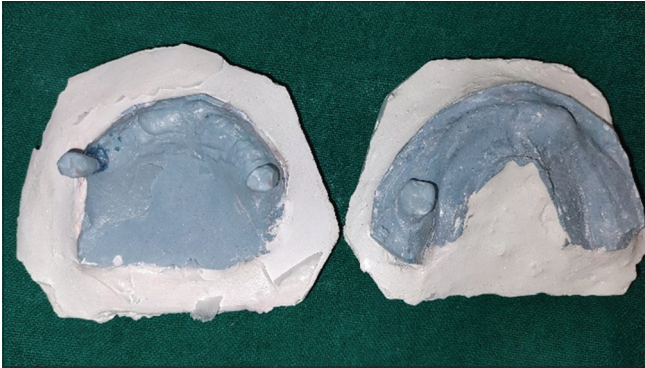
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**Figure 1:** (a and b) Maxillary and mandibular arches with 14, 24 present in the maxillary arch, and 36 present in the mandibular arch



**Figure 2:** Master cast obtained after final impression



**Figure 3:** Try in of maxillary and mandibular teeth arrangement



**Figure 4:** Denture positioned in the mouth

periodontitis. The patient presented with only two teeth in the maxillary arch (14 and 24) and only one standing tooth in the

mandibular arch 36. All the other teeth were extracted before 1 year. 14, 24, and 36 are periodontally sound.

### Treatment procedure

1. The patient presented with only two teeth in the maxillary arch (14 and 24) and one tooth in the mandibular arch 36 (Figure 1)
2. The final impression was made by border molding using a low fusion impression compound (green stick) and Zinc oxide eugenol for the final impression
3. Master casts were poured with dental stone (Figure 2)
4. The denture base was constructed and the wax rim was prepared
5. Jaw relation and bite registration were done and mounted on a mean value articulator
6. Teeth arrangement was done in both maxillary and mandibular arch
7. Try-in of both the maxilla and mandible was done in the patient's oral cavity (Figure 3).
8. Fabrication of the denture was done conventionally
9. The denture was retrieved consisting of holes in it for the emergence of natural teeth and was finished and polished in the usual manner (Figure 4).
10. Post-operative instructions were given to patients about the use of the denture, maintenance, and hygiene.

### DISCUSSION

Cusil dentures are intended to protect the remaining natural teeth and, as a result, the alveolar bone. They affect denture retention and stability. Furthermore, it provides the patient with the psychological satisfaction of retaining their natural teeth as they were. Natural teeth that have been preserved maintain vertical dimension and proprioception. Attachment devices are not permitted entirely. This treatment method does not necessitate any tooth preparation or additional patient visits. It does not necessitate any special equipment or materials. If a tooth falls out in the future, the existing denture can be adjusted to take its place. They serve as a solution for single-standing or isolated teeth in the dental arch. They are not recommended for patients who have a large number of teeth evenly distributed across the dental arch.<sup>[5-7]</sup>

It provides better retention and stability than any other denture by preserving natural teeth and bone in the best of circumstances. Dentures provide retention and stability by preventing lateral displacement of remaining teeth and by firmly holding the neck of the teeth with an elastomeric gasket, as in a complete denture, which flushes food over it. Its benefit is that the patient's vertical dimension, proprioception, esthetic demand (no metal clasp), and psychological stability are all preserved. Its limitations include the need for frequent corrections and plaque accumulation, because the entire cervical region of the tooth is covered.<sup>[8-10]</sup> If any teeth fall out in the future, this denture can be adjusted to include the missing teeth.

### CONCLUSION

Cusil denture is the best option for patients who have few teeth remaining and those who do not want to undergo extraction. It

preserves bone and teeth which help in increasing the retention and stability of the denture.

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