

# Copying Is Not Cheating: The Use of Copy Dentures In The Digital Denture Process

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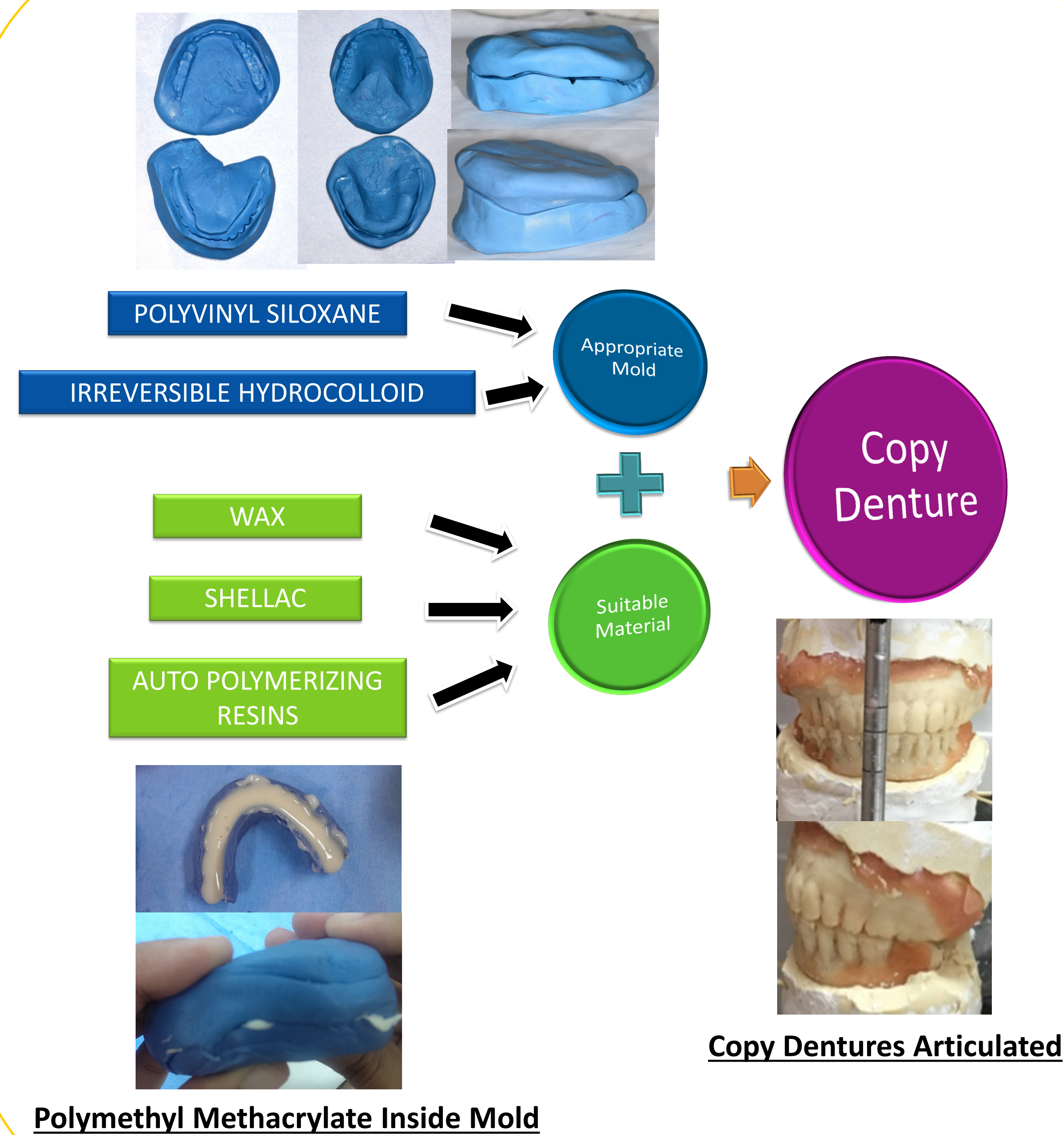
## INTRODUCTION

Dental practitioners often encounter patients who want to replace an old pair of complete dentures. There are many factors and inherent challenges involved in providing a new pair of dentures which are not only technically and clinically acceptable, but also acceptable to the patient. These challenges can prove to be particularly difficult, when the replacement denture is for an elderly patient, or patients with systemic disorders such as Parkinson's, Dementia, Alzheimer's or the physically frail. Previous denture use enables a patient to adapt more quickly to a new set of dentures, as compared with a patient who has never worn dentures before. However, when patients are wearing old and inadequate prosthesis over long periods, the necessary muscular control develops, which enables them to still function. Therefore, the difficulty arises if major changes are made in the new denture, and a lot of muscular adaptation is required for control. In these cases, the advantage of a copy dentures would be the ease with which neuromuscular adaption to the new dentures can occur. (Vohra and Habib 2013)

The method described in this poster used materials readily available in a private practice to generate a pair of duplicate dentures which captured all of the features of the patients existing pair. These were modified chair-side and used to capture vital information on fit, occlusion and aesthetics, forming a template which was transferred to the laboratory and used to generate new dentures via the traditional laboratory process. The same template was also used to generate a pair of "AVADENT Digital Dentures" for comparison.

## METHODS & MATERIAL

### Upper & Lower Heavy Body Polyvinyl Siloxane Molds



### C. Traditionally Fabricated Dentures



### D. Digital Dentures



## DISCUSSION

The case patient wore the traditionally made dentures and the AvaDent digital dentures, which were both fabricated from the same copy denture. The patient wore the conventionally made denture first, and was pleased with the outcome as it replicated many of the features he liked from his old denture. The patient was also very pleased with AvaDent digital denture, because of the fit and aesthetics.

Digital dentures are becoming more popular now when fabricating complete dentures. One of the most common advantages of a digital denture, when compared to a conventionally made denture for the same patient, is that there is a significant increase in retention. (Kattadiyil et al 2015) The case patient had a similar experience, as he expressed greater satisfaction with retention, weight, aesthetics and overall comfort of the denture similar to Bidra et al 2016 and Kattadiyil et al 2015. Important to note is that less clinical time was required for fabrication of the digital dentures, and could have been further reduced by removing the template trial step as no modifications were made at this stage.

Schwindling and Stober described that there was no significant difference in phonetics between digital dentures and other types of complete dentures. Similarly, the case patient described that there was no noticeable difference in phonetics. At the two week review, the most noticeable difference was that the digital denture was much lighter, and as a result more comfortable to wear.

## CONCLUSION

The results of this pilot study show that this simple chairside method of fabricating duplicate dentures can be incorporated successfully into the Digital Denture Fabrication process to generate a pair of dentures with comparable if not superior fit and aesthetics to a pair fabricated from the same template via the traditional laboratory process.

## REFERENCES

1. Vohra FA, Habib SR. Copy denture, Existing dentures Replacing Technique Geriatric patient. J Pak Dent Assoc 2013;
2. Kattadiyil MT, Jekki R, Goodacre CJ, Baba NZ. Comparison of treatment outcomes in digital and conventional complete removable dental prosthesis fabrications in a predoctoral setting. Journal of Prosthetic Dent 2015;114:818-25.
3. Schwindling FS, Stober T. A comparison of two digital techniques for the fabrication of complete removable dental prostheses: a pilot clinical study. J Prosthet Dent 2016 May.
4. Bidra AS, Farrell K, Burnham D, Dhingra A, Taylor TD, Kuo C. Prospective cohort pilot study of 2-visit CAD/CAM monolithic complete dentures and implant-retained overdentures: clinical and patient-centered outcomes. J Prosthet Dent 2016;115:578-86.

## CLINICAL CASE

### A. Old Maxillary & Mandibular Dentures



### B. Copy Dentures



Copy Denture in Mouth

CD Prepped for Scanning

Digitized Design from CD



Milled Digital Templates from Copy Dentures