

# Clinical Benefits of Custom Healing Abutments in Immediate Implant Placement for Peri-Implant Soft-Tissue Management: A Case Series.

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## INTRODUCTION

Immediate loading of implants provides a fixed temporary tooth replacement throughout osseointegration. While they allow for improved patient aesthetics and the maintenance of soft tissue dimensions, some factors such as primary stability, occlusion, and implant design may prevent the clinician from immediately loading an implant. Considering such conditions, custom healing abutments can be effective in peri-implant soft tissue management when immediately loading is not possible.

## CASE SERIES

Three otherwise healthy patients requiring hopeless tooth extraction and immediate implant placement were selected to take part of this case series at the postgraduate periodontology clinic at Nova Southeastern University.

Case 1 | Tooth #28



Case 2 | Tooth #6



Case 3 | Tooth #8



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## Case 1 | Tooth #28

81M presented with a coronal fracture of #28.

- Tooth was extracted and an implant was placed at 35 Ncm.
- The buccal gap was grafted with xenograft bone particulate.
- Custom healing abutment was fabricated with acrylic resin, due to the high occlusal forces associated with a posterior tooth.



Pre-Op



Extraction



Custom Healing Abutment



Immediate Post-Op



4-Month Follow-Up

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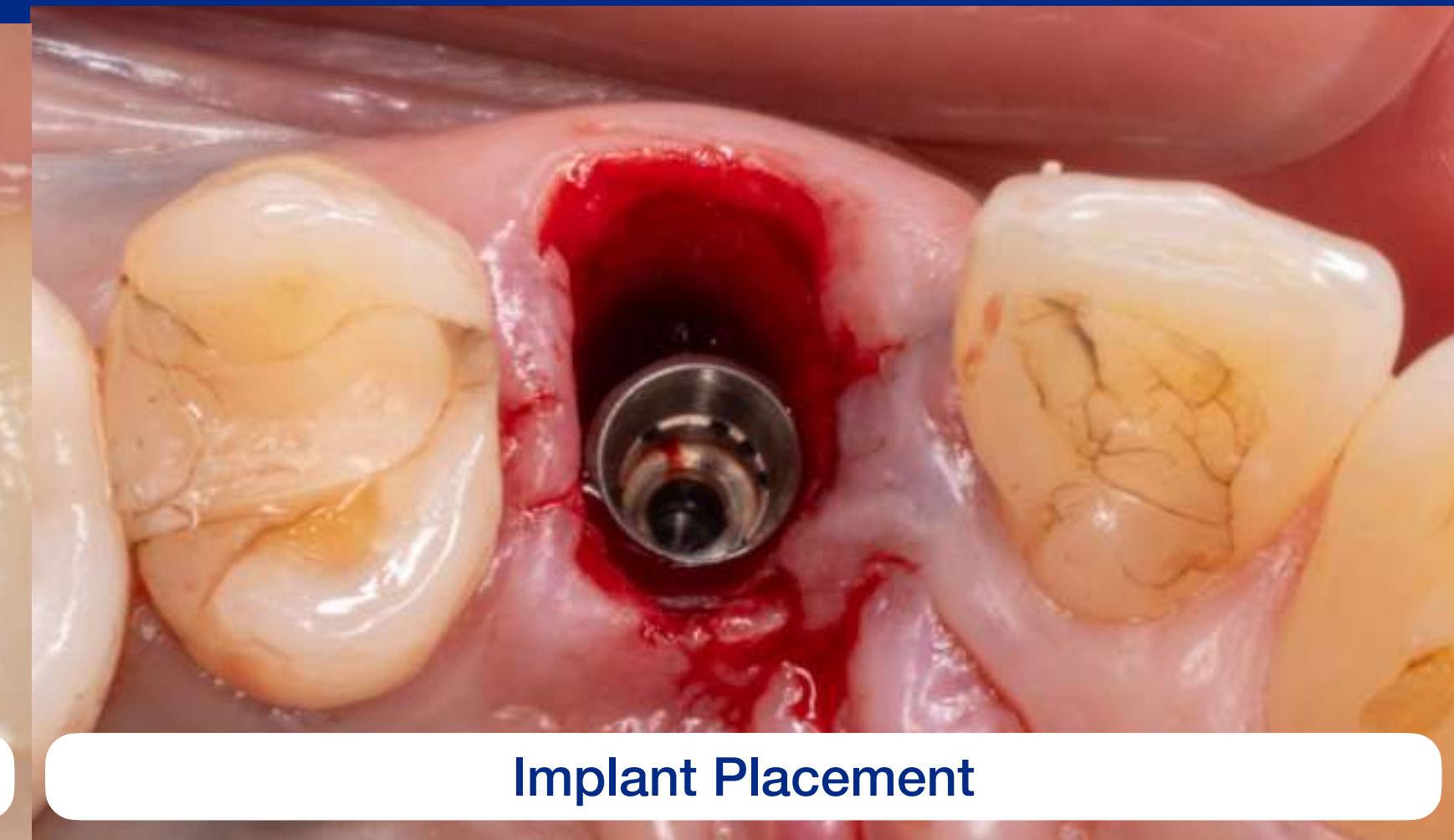
## Case 2 | Tooth #6

57M presented with a root fracture of #6

- #6 was extracted, implant placed at >40 Ncm.
- The buccal gap was grafted with allograft and xenograft bone particulate.
- Custom healing abutment was fabricated with flowable composite due to the high occlusal forces associated with a canine and the patient's deep bite. An essix retainer was provided for esthetics.



Pre-Op



Implant Placement



Custom Healing Abutment



Immediate Post-Op



6-Week Follow-Up

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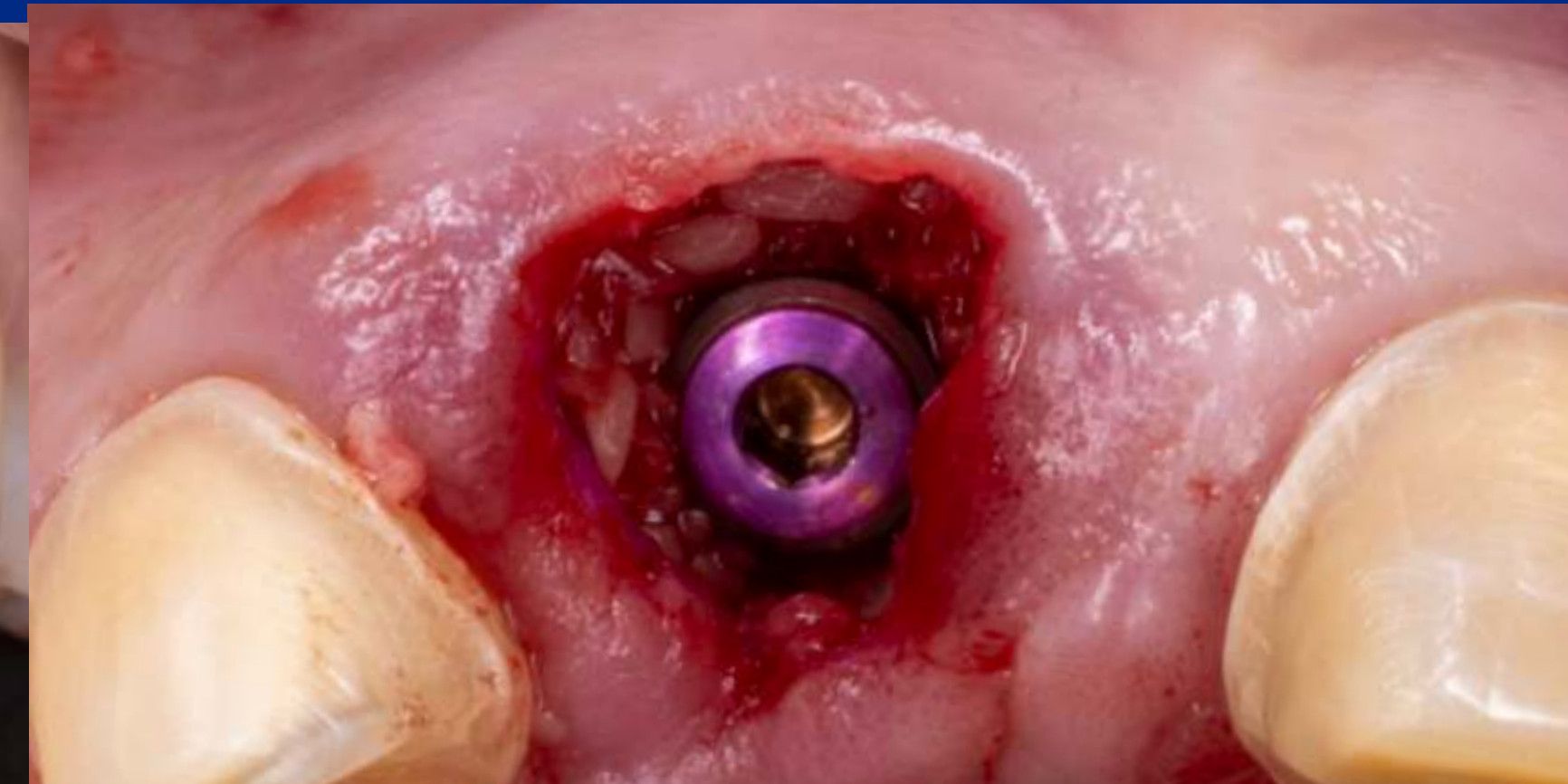
## Case 3 | Tooth #8

45F presented with a defective restoration on #8

- #8 was extracted, implant placed at 15 Ncm.
- Buccal gap was grafted with allograft bone particulate, a CTG was tunneled on the buccal.
- Custom healing abutment was fabricated with flowable composite due to poor stability and the presence of temporary bridge pontic over the site.



Pre-Op



Implant Placement with Bone Graft



Custom Healing Abutment



Immediate Post-Op



1-Month Follow-Up

## RESULTS

At follow-up, the peri-implant soft tissue dimensions, both bucco-lingually and mesio-distally, were similar in appearance to the original tooth's, when comparing the pre-operative and post-operative pictures.



## CONCLUSION

In cases where immediate loading is not possible due to certain factors such as occlusion and implant primary stability being unfavourable, custom healing abutments appear to be beneficial in maintaining peri-implant soft tissue dimensions.