

Single-Tooth Replacement on an Existing Tooth: Procera Crown Alumina

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A 20-year-old male presented with a trauma to tooth No. 7, which had occurred 3 weeks earlier while he was traveling abroad.

A preoperative radiograph (Figure 1) revealed a major fracture to tooth No. 7, with no peri-apical pathology or changes to the alveolus. A pulp test was normal, and there appeared to be no periodontal concerns. The patient was healthy, with no medical concerns or contraindications for dental treatment.

Treatment options were presented to the patient. As he had very unique, characterized teeth, he was concerned about the difficulty of matching a single tooth to the rest of his dentition. The option of veneering the rest of his teeth to provide a better color match was discussed. However, the patient chose initially to try for a match to a single tooth, and an all-ceramic restoration was planned.

Before preparation of the tooth, a shade match was taken (Figure 2). Drilling may cause dehydration of the adjoining teeth and subsequent problems with achieving an accurate match, therefore the shade should be taken prior to work.

After shade selection, the patient was anesthetized and tooth No. 7 was prepared for a Procera™ all-ceramic restoration. Preparation margins were refined after cord packing, and the final impression was made using polyvinyl siloxane impression material. A provisional was fabricated and cemented with non-eugenol temporary cement.

Several weeks after tooth preparation, when the tissues were healed, the patient returned for delivery of the final restoration (Figure 3 and Figure 4). A NobelProcera alumina crown was placed and cemented using resin-modified glass ionomer cement. The final results satisfied the patient's requirements (Figure 5 through Figure 7).

Because of the ceramic core, this is the superior choice for restorations in the esthetic zone. With four different shades available for the core, it is easier to begin with a base shade that matches more closely, and shade matching is more straightforward for the laboratory technicians.

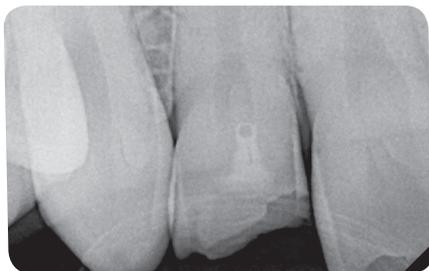


Figure 1 Preoperative radiograph showing fractured tooth No. 7.



Figure 2 Before tooth preparation, a shade tab was used to take a match.



Figure 3 Several weeks after tooth preparation, the patient returns for the crown.



Figure 4 Lateral view of prepared tooth No. 7 at the seating appointment.



Figure 5 Lateral view of final restoration.



Figure 6 Close up of the final restoration.



Figure 7 Full mouth retracted view.