

## Clinical Case: Restoration of Anterior Sectors

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The case refers to a young patient who suffered a fracture while swimming.

The fracture, as we can observe in the initial shots, concerns the entire incisal edge even with a cervical flute-beak fracture (Photo 1)



Photo 1

After physical and electrical vitality tests were performed (pulp tester), two impressions were taken for diagnostic wax-up's to reconstruct the patient's teeth, both functionally and aesthetically. (Photo 2, 3 and 4)



Photo 2

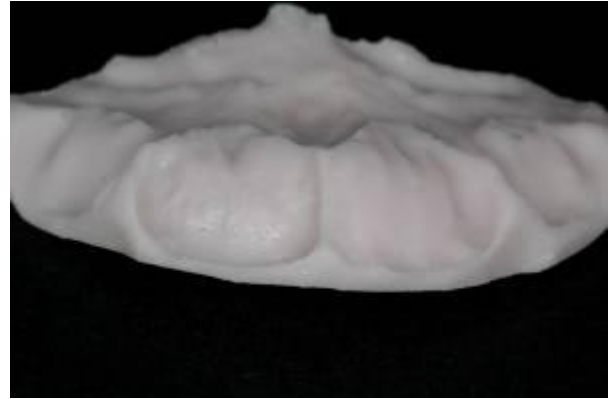


Photo 3



Photo 4

We examined the patient two days later, checked pulp vitality and used fluoride free Cleanic<sup>®</sup> prophylaxis paste on the surface of the preparations, together with water spray to avoid dehydration that would interfere with shade selection. We then conducted a morphological and colorimetric study of the dentition requiring reconstruction.

On completion of the study, the case did not appear too difficult, except for a hint of orange in the central area, and several white spots on the incisal edge.

We selected Herculite<sup>®</sup> XRV Ultra<sup>™</sup> A2 Enamel, A2 and A3 Dentin & Universal

Incisal, and Ochre and White Kolor + Plus® to be applied in a pictorial technique.

The Palatal wall is constructed with A2 Enamel, followed by the application of a small amount of A3 Dentin on the most coronal part of the preparation. A layer of A2 Dentine was then applied to cover the previous layer and then the mamelons were sculpted. (3). (Photo 5-9)



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9

The incisal composite is placed, both around and between the mamelons, to create a translucent effect, and to highlight the dentine anatomy. (Photo 10)



Photo 10

The most coronal aspect is slightly pigmented with Ochre, while whitish areas are replicated with White Kolor + Plus®. (Photo 11)



Photo 11

At this point we coated it all with a very fine layer of A2 Enamel, also considering the enamel mass' limited translucency. (Photo 12)



Photo 12

A 40 micron diamond was used to finish the anatomy, while the initial polishing was achieved using silicon polishers with decreasing abrasive grades. (Photo 13)



Photo 13

After checking the occlusion, the patient's treatment was completed; the final polishing and shade confirmation was postponed for 10 days. At the next appointment the structure surface was replicated and the restoration was polished using Occlubrush<sup>®</sup> which is impregnated with Silicon carbide and aluminium oxide paste applied with felt pads. (Photo 14)



Photo 14

The patient was pleased with the final result, but we reminded him that, considering the extent of the injury, he should attend periodic pulp vitality checks, and that the need for endodontic treatment should not be ruled out.

Herculite<sup>®</sup> XRV Ultra<sup>™</sup> performed a significant mimetic feature and, with the addition of Kerr Kolor + Plus<sup>®</sup> for the incisal characterizations, a highly aesthetic value end result.