Immediate implant placement in the esthetic zone using the OsseoSpeed® Profile EV implant

**Patient:** A 42-year-old male patient with excellent general health, excellent dental and periodontal health and minimally restored dentition presented at our clinic. Due to childhood trauma, tooth 11 was restored with root canal treatment and a crown. Crown and core had fractured due to secondary trauma.

**Challenge:** Preservation of the buccal bone cortex after tooth extraction to achieve a nice esthetic final restoration without recession of the gingiva.

**Treatment:** Post and core with crown restoration vs. extraction and an implant supported restoration. The aim of the treatment was a permanent replacement with minimal risk for future intervention and an esthetic restoration with a full ceramic crown.

1. CBCT scan plan for placement of a 4.8 x 13 mm OsseoSpeed Profile EV implant. Note the excellent ridge width and height – suitable for immediate implant placement at the day of tooth extraction.

2. The occlusal view after tooth extraction showed an intact extraction socket.

3. Root and crown of the fractured tooth after extraction.

4. The osteotomy was prepared according to the manufacturer’s drilling protocol and a 4.8 x 13 mm OsseoSpeed Profile EV implant was installed.

5. The implant was installed in a flapless procedure. The orientation of the slope of the implant is indicated by a flat side with a dimple on the implant driver.

6. The OsseoSpeed Profile EV placed palatally for preservation of the buccal bone cortex.
7. A Direct Abutment EV for immediate temporary restoration was installed into the implant.

8. A temporary acrylic crown was fabricated on a Direct Abutment EV Heal Cap. The temporary was kept clear of centric and protrusive contacts.

9. Healthy healed soft tissue 12 weeks after implant placement.

10. An Implant Pick-Up Design Profile EV with flowable composite was used to capture soft tissue architecture before impression taking.

11. Impression with impression component and composite.

12. Planning of the Atlantis Abutment and final tooth shape in the Atlantis VAD software - lateral view.

13. Overview of the Atlantis Abutment design in the 3D Editor.

14. An Atlantis Abutment in zirconia with concave emergence profile was produced and tried in on the master cast.

15. The abutment margin following the soft tissue contour after placement.

16. The final restoration with an all-ceramic crown showing a nice esthetic outcome and healthy soft tissue.

17. Baseline radiograph confirms excellent restorative fit and marginal bone levels.

18. Final esthetic result 6 months after insertion.