



Figure 2. Available abutment/implant configurations, IMZTwinPlus implant system.



Figure 5. Impression posts engaged at second-stage surgical appointment.

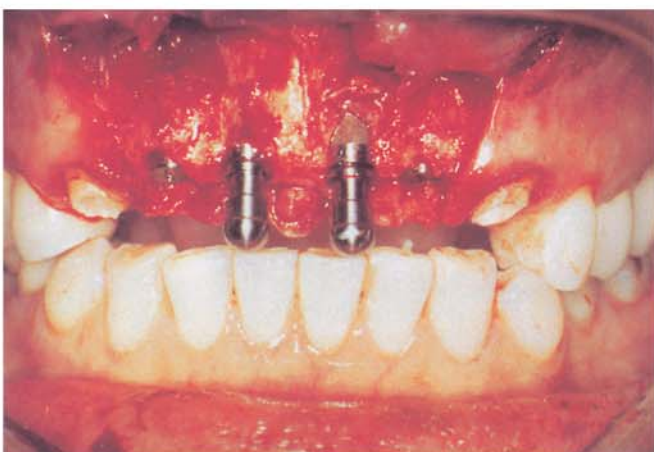


Figure 3. Four IMZTwinPlus implants in place. Tilt-off placement heads revealing healing screw.



Figure 6. Laboratory view of customized standard 0° abutments.

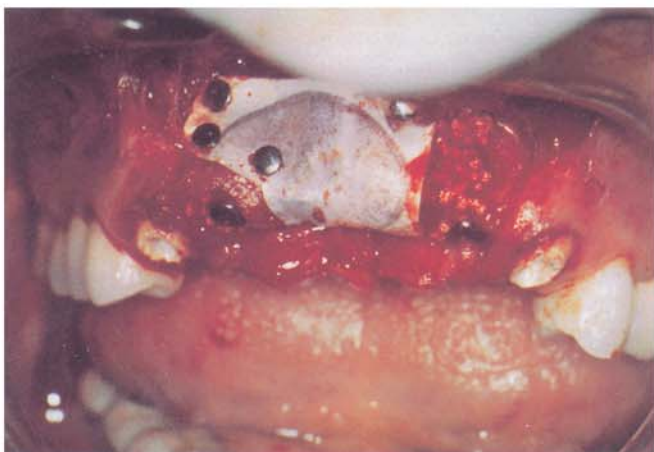


Figure 4. Implants in place with sheltered bone formation membrane and titanium tack fixation.

commodate the classic IMZ abutments that employ an intramobile element as a resilient component between the implant and abutment for use in multiple unit implant or implant-tooth splinted cases.

The IMZTwinPlus implant and Esthetic Line abutment system (IMZ, 1995) was chosen to optimize mechanics, biomechanics, and esthetics in the case of report.

Report of Case

The 53-year-old patient of Asian descent presented with a failed six-unit bridge. The failed bridge was the third to fail to restore an area with a history of traumatic injury. Teeth adjacent to the three incisors, teeth 8, 9, and 10, that had been originally extracted were suspected to have been internally weakened in the original injury. Teeth 6, 7, and 11 presented broken off at the gingival level. Root canal treatments were performed on teeth 6 and 11



Figure 7. Laboratory view of custom porcelain-fused-to-metal restorations.

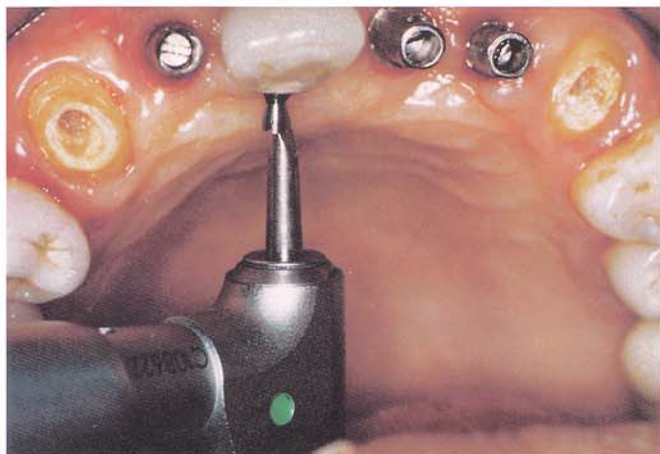


Figure 8. Lingual screw fixation of individual porcelain-fused-to-metal restorations.



Figure 9. Lingual clinical view of six custom porcelain-fused-to-metal restorations.



Figure 10. Anterior clinical view of six custom porcelain-fused-to-metal restorations.

to preserve the canines and bony canine eminences. Following root canal treatment at the same appointment, tooth 7 was extracted and implants were placed in sites 7, 8, 9, and 10. Tooth 7 was removed in consideration of its inadequate crown/root ratio and a compromised long-term endodontic-prosthetic prognosis due to the history of traumatic involvement.

A full-thickness muco-periosteal flap was reflected from a horizontal incision placed lingual to the crest of the ridge, and two vertical releasing incisions were placed mesial to the interdental papillae of teeth 6 and 11. Four IMZTwinPlus implants were placed, 4.0×11 mm in the central incisor sites and 3.3×13 mm in the lateral incisor sites, with the aid of a surgical jig to assure exact position and angulation (Fig. 3).

The internally notched IMZTwinPlus implants were oriented visually with the orientation dimple (located on the side of the implant body toward the apical end) oriented to the labial and perpendicular to the centerline of the teeth or residual ridge (Fig. 2). This user-friendly feature orients the internal notches in a favorable alignment to facilitate the use of manufactured rotation-specific abutments. The implant design includes a unique tilt-off placement head. The placement head tilts-off toward the placement dot milled into the head. The placement head is press-fitted into the screw slot of the first-phase sealing screw already installed in the implant body.

Proper angulation of the implants in the case of this report yielded slight apical perforation on the labial aspect of site 7 at the level of the vestibule. This perforation and a slight fenestration of the crestal bone of site 9 was corrected with the use of a membrane to induce sheltered bone formation (Dahlin *et al*, 1989; Nyman *et al*, 1990). A Gore-tex