

Clinical Indications With The Certain[®] PREVAIL[™] Implant



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Clinical Indications Demonstrating Bone Preservation With The Certain PREVAIL Implant

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Clinical Indications Demonstrating Bone Preservation With The Certain® PREVAIL™ Implant

By Richard J. Lazzara, DMD, MScD



We recently published a paper discussing the theory behind and some clinical findings relating to the concept of Platform Switching™.¹ This paper discusses some of the dental literature describing the dynamics of biologic width development around implants. Platform Switching is defined as a protocol that includes smaller diameter restorative components that have been placed onto larger diameter implant restorative platforms, i.e.,

a 4.1mm diameter abutment on a 5mm diameter implant (Figure 1).

The concept of Platform Switching is unique to the 3i Implant System since it is the only major system with uniform hex and screw sizes for implants greater than 3.75mm in diameter. This provides maximum flexibility to surgeons and restorative dentists in that the surgeon can choose to platform switch at the time of implant placement. With the 3i System, it is up to the surgeon and/or restorative dentist to choose the configuration of the interface and the dimension of the abutments in relation to the size of the restorative platform of the implant. Other systems force the clinician to use abutments that match the diameters of the implants.

Platform Switching has provided clinicians with many benefits and has been used to improve treatment outcomes for some time. This protocol evolved anecdotally when wide diameter implants were first manufactured and placed in 1991 and the corresponding restorative components were not yet available. The dimensional mismatch between implants and restorative components created either a 0.45mm (4.1mm prosthetics/5mm implant platform) or a 0.95mm (4.1mm prosthetics/6mm implant platform) circumferential horizontal difference in dimension between the implant seating surface and the abutment restorative platform. In the publication noted above, bone loss at up to 10 years post occlusal loading was significantly less in and around the implants with Platform Switching than one would have expected to see with conventional implant restorations (bone loss to the first thread). The prevailing theory as to why Platform Switching decreases bone loss is that by moving the implant/abutment junction medially on the implant restorative platform, the overall effect of the abutment inflammatory cell infiltrate (ICT) may be reduced and thus decrease the resorptive effect on the adjacent crestal bone.

There are numerous clinical benefits to Platform Switching including:

- Optimal management of the prosthetic space—the amount of restorative volume available for an optimally contoured, physiologic implant restoration;
- Improved bone support for short implants—bone remodeling around a platform switched implant is minimized, therefore there is potentially greater bone/implant contact for short implants, thus opening the possibility of treating more patients with less extensive therapy;
- Potentially preserving bone that supports the overlying soft tissue—less recession of the interdental papillae and facial gingival margins for optimal aesthetics, especially in the anterior aesthetic zone.

Optimal management of the prosthetic space and correcting implant positions with Platform Switching provides significant flexibility for clinicians. Platform Switching can reduce the cervical diameter of the restoration, relative to the size of the implant, when surgical requirements dictate a wide diameter implant (ie, extraction site, immediate implant placement) but the prosthetic space demands a smaller size for the restoration.

Despite the benefits of Platform Switching, there are potential technical drawbacks i.e., confusion in the dental laboratory when ordering restorative components. If implant clinicians wanted to platform switch, precise instructions had to be written for dental laboratory technicians for implementation of the protocol. Often, this would result in multiple

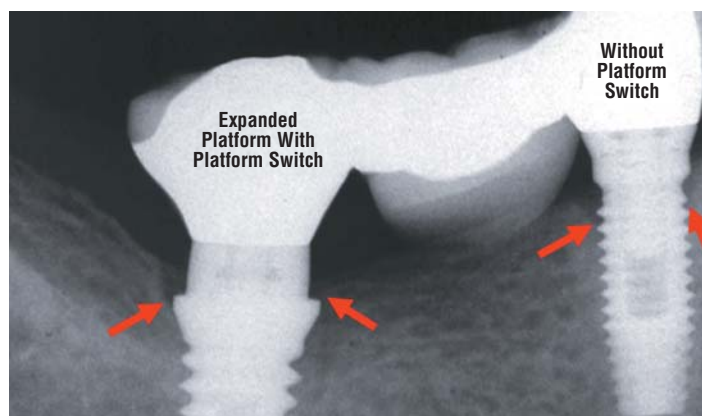


Figure 1

communications between restorative dentists and technicians until the proper components were ordered and implemented. The color coding that was an integral part of the OSSEOTITE® Certain® Implant System would not be applied by the clinician in order for Platform Switching to occur. Also, Platform Switching could not be performed on standard diameter (4mm) implants. Currently available implant systems do not offer smaller diameter restorative components for standard implants with a 4.1mm restorative platform, as the wall thickness of the abutments would be too thin to accommodate the diameter of the abutment screw.

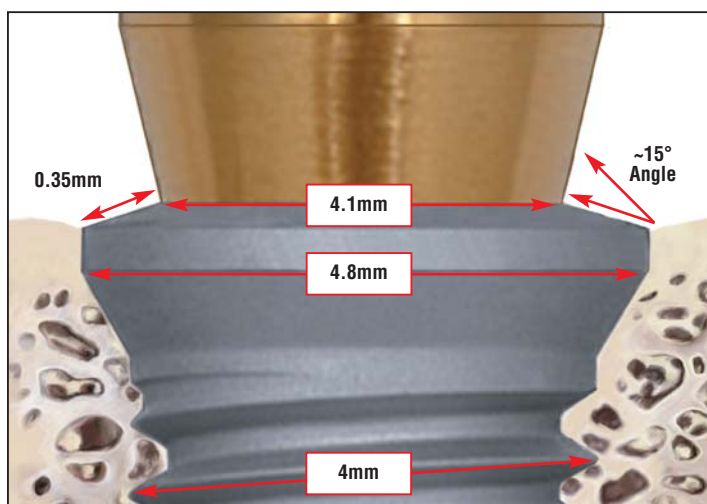


Figure 2

Research on crestal bone loss around dental implants has largely focused on implant systems with matching diameter implant seating surfaces and restorative components. With the typical design, the junction of the outer edge of the abutment and the outer edge of the implant seating surface positions the inflammatory cell infiltrate at the outer edge of the implant/abutment junction and in direct approximation to crestal bone.

In order to simplify Platform Switching™ options, the Certain® PREVAIL™ Implant System incorporates a modified design in the coronal region of the implant (Figure 2). Implants in this system have an expanded collar diameter and were designed to provide better engagement in the bone crest, more complete sealing of extraction sockets and improved primary stability. The collar bevels medially into a smaller-diameter prosthetic platform. Restoring the 4.8mm diameter collar (implant restorative platform) with the 4.1mm prosthetic component medializes the implant/abutment junction – moving the inflammatory cell infiltrate away from the surrounding bone and potentially reducing bone loss. Color-coding of the surgical and prosthetic components of this system reduces the possibility for confusion. This is particularly desirable in three clinical situations.

SHORT IMPLANTS

One application for the Certain PREVAIL Implant is where a short implant is required, i.e., the posterior mandible with minimal bone height above the inferior alveolar canal. A higher failure rate has been reported for short implants^{2,3}. A potential explanation for this phenomenon is that after traditional implant placement, typical post-restorative crestal bone loss occurs and the shorter implant is left with less than ideal bone/implant contact. However, with

placement of a Certain PREVAIL Implant, there may be less bone loss because the implant/abutment junction has been moved medially, away from the crestal bone. This offers the possibility of preserving more bone at the coronal aspect of the short implant and may increase the amount of bone/implant contact.

THE ANTERIOR AESTHETIC ZONE

The anterior aesthetic zone presents many challenges, especially when placing implants that will replace two adjacent natural teeth. Placement of two Certain PREVAIL Implants and Platform Switching the restorative components in this type of clinical situation may preserve more of the interproximal bone and the overlying soft tissue than one would normally expect with conventional implant designs (vertical implant/abutment junction). This may increase the likelihood of a better aesthetic result since the interproximal height of bone (IHB) will be more occlusal than the IHB would be after the 1-2mm of crestal bone loss typically seen with conventional implant/abutment connections.

Tarnow et al in 2000 demonstrated that the anticipated bone loss around implants also has a lateral component in addition to the commonly recognized vertical component.⁴ This phenomenon appears to account for the loss of papillae that so often results between adjacent implants. In order to increase the chances for preserving the papillae, the recommendation has been made to place adjoining implants in the anterior maxilla no closer than 3mm. Placement of Certain PREVAIL Implants may eliminate or reduce horizontal (as well as vertical) bone loss. Therefore, this may allow implants to be placed closer together and offer an improved probability of maintaining interdental papillae.

In the case of immediate implant placement post extraction of a natural tooth, Certain PREVAIL Implants offer clinicians another alternative to seal the occlusal aspects of extraction sites. A wide diameter implant can be utilized to maintain the buccal contours and completely fill the occlusal aspect of the extraction socket when the implant is placed immediately after extraction. The abutment configuration of the Certain PREVAIL Implant will help maintain the often thin buccal bone, thus perhaps minimizing the potential for bone loss while maximizing the potential to maintain the soft tissue volume in order to achieve a high level of aesthetics. With the crestal bone preserved both vertically and horizontally, support is thus retained for the papillae. Mid facial bone levels may also be maintained more predictably and therefore support the facial gingival tissues.

IMPLANTS ADJACENT TO TEETH

Implants adjacent to natural teeth will more likely than not, have better success in maintaining interdental papillae because the interproximal height of bone (IHB) generally is higher next to natural teeth than it would be between two

adjacent implants. Interproximal bone obtains its blood supply from the fine vascular network within the bone, periosteum and periodontal ligament adjacent to the natural tooth. Inter-implant bone has less blood supply because it does not have a periodontal ligament. The integrated Platform Switching™ of Certain® PREVAIL™ Implants may minimize vertical bone loss and provide clinicians with more success in the aesthetic zone than conventional implant configurations.

CONCLUSIONS

The Certain PREVAIL Implant System incorporates a unique design feature—Platform Switching. Recently, the biologic width around dental implants has been the subject of much discussion. We now know that 1-2mm of bone loss adjacent to implants in the first year of function does not have to occur. We also know that the biologic width forms within the first six weeks after the implant/abutment junction has been exposed to the oral cavity (Figure 3). Bone loss is dependent on the three dimensional location of the implant/abutment junction and by moving the interface medially, bone loss may be significantly minimized or eliminated. Platform Switching potentially allows a greater degree of implant/bone contact and therefore may be used in situations that might be contraindicated for conventional dental implants, i.e., when short implants would not be appropriate to use.

Platform Switching may increase the number of patients who elect implant treatment because grafting procedures, with their requisite morbidities, would not be required prior to implant placement. More bone around the occlusal aspects of implants should lead to less problems associated with loss of facial tissue height and interdental papillae—especially important in the aesthetic zone. Certain PREVAIL Implants may also be better suited for use in immediate implant placement post extraction because these can more completely obliterate the occlusal aspects of large extraction sites and also better support the thin, fragile walls of certain alveolar processes.

In certain instances, Certain PREVAIL Implants offer clinicians greater flexibility with increased biologic predictability. Use of the Certain PREVAIL Implant is not indicated for all implant procedures and has limitations. Proper case selection and case management are necessary to ensure a successful outcome. Since the biologic width is known to be approximately 2-3mm in both vertical and horizontal dimensions, preservation of crestal bone with Certain PREVAIL Implants will work best when there is at least 2-3mm of soft tissue surrounding the implants. If this 2-3mm of soft tissue height is not available, then it is necessary to place the implant at least 1mm subcrestal with the aid of a specially designed countersink drill. Otherwise, the position of the implant would not be ideally positioned for obtaining maximum bone/implant

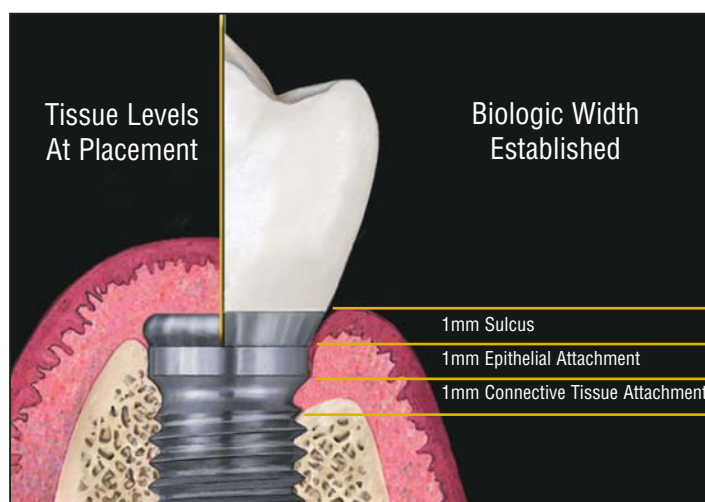


Figure 3

contact. Precise, optimal, surgical technique is extremely critical in placing Certain PREVAIL Implants. The three dimensional design and location of the osteotomy, including but not limited to countersinking, is critical to the overall increased bone/implant contact when compared to conventional implant designs. There also must be adequate buccal bone present in order for bone preservation around Certain PREVAIL Implants to potentially occur. Bone will not grow simply because a Certain PREVAIL Implant has been placed. Bone levels and bone loss in and around dental implants is a multi-factorial phenomenon. Some of the other factors that may play a role in bone levels around dental implants include occlusal overload, off-axis occlusal forces, loose implant restorative components and multiple procedures that require repeated insertions of implant components. Long-term clinical studies are currently underway to further define parameters critical to success when Platform Switching.

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2. Elkhoury J, McGlumphy E, Tatakis D, Beck F. Clinical parameters associated with success and failure of single-tooth titanium plasma-sprayed cylindrical implants under stricter criteria: a 5-year retrospective study. *Int J Oral Maxillofac Implants* 2005;20:687-694.
3. Wheeler SL. Eight-year clinical retrospective study of titanium plasma-sprayed and hydroxyapatite-coated cylinder implants. *Int J Oral Maxillofac Implants* 1996;11(3):340-350.
4. Tarnow DP, Cho SC, Wallace SS. The effect of inter-implant distance on the height of inter-implant bone crest. *J Periodontol* 2000;71(4):546-549.

Clinical Indication: Short Implants In The Posterior Region

Clinical Treatment By Dr. Alan Meltzer (USA)

INITIAL PATIENT PRESENTATION

A 50-year-old female patient presented with bone loss in the mandibular right posterior quadrant. The teeth in this quadrant presented with questionable-to-hopeless long term prognosis. The patient desired a fixed restoration to replace her soon-to-be missing teeth.

DIAGNOSIS

- Severe periodontitis with advanced bone loss, teeth #'s 29 and 31
- Normal soft-tissue contours #'s 29 and 31
- Inadequate bone volume for implant placement

TREATMENT PLAN

- Atraumatic extraction of teeth #'s 29 and 31, debridement of extraction sockets and placement of FDMB allograft and OSSIX™ Membrane
- Healing (five months)
- Placement of two OSSEOTITE® Certain® (internally interfaced) Implants and placement of EP® (Emergence Profile System) healing abutments (5mm diameters) in a flapless, single-stage surgical protocol
- Eight weeks following implant placement, removal of healing abutments and implant level impressions
- Placement of a definitive metal-ceramic fixed partial-denture

SURGICAL TREATMENT

The hopeless teeth #'s 29 and 31 (Figure 1) were carefully extracted and particulate bone graft material placed into the extraction sockets. Healing was uneventful over the next five months. Two OSSEOTITE Certain (internally interfaced) Implants were placed in a single-stage protocol (punch technique). Tooth position #29 received a 4mm platform diameter x 10mm length Certain PREVAIL™ Implant and tooth position #31 received an 8.5mm length 5/6 OSSEOTITE XP® Certain Implant. Consistent with the single stage protocol, an EP (Emergence Profile System) Healing Abutment (4mm implant restorative platform x 5mm EP Flare x 4mm trans tissue height) was placed onto the implant (with an audible and tactile sense of complete seating) in tooth position #29. An EP Healing Abutment (5mm implant restorative platform x 5mm EP Flare x 4mm trans tissue height) was placed on the implant in tooth position #31. Since there was minimal bone volume superior to the inferior alveolar canal apical to tooth #31, an implant that was 8.5mm in length was placed to avoid the need for nerve repositioning or vertical augmentation. The clinician also chose to perform Platform Switching™ of the implant by placing a smaller diameter healing abutment onto the

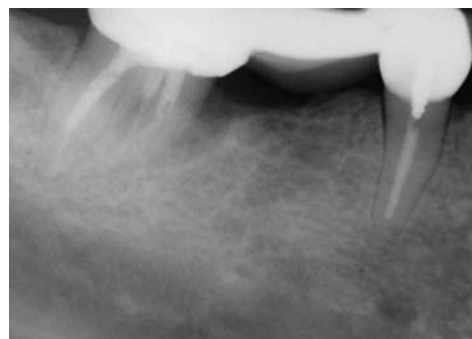


Figure 1

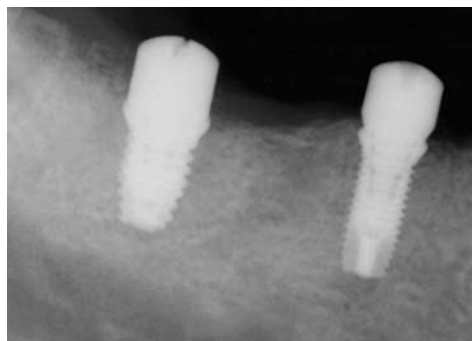


Figure 2

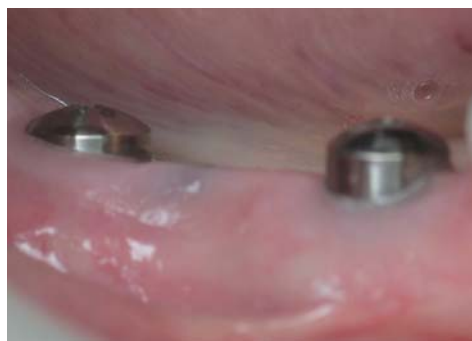


Figure 3



Figure 4

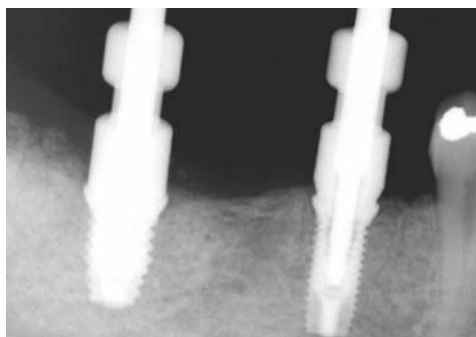


Figure 5

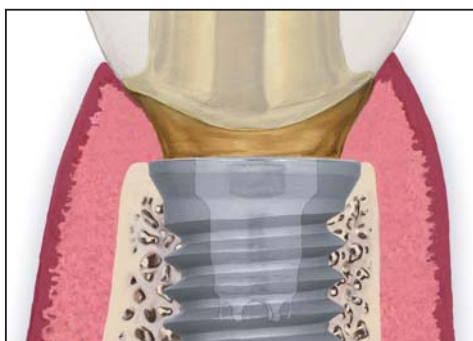


Figure 6



Figure 7

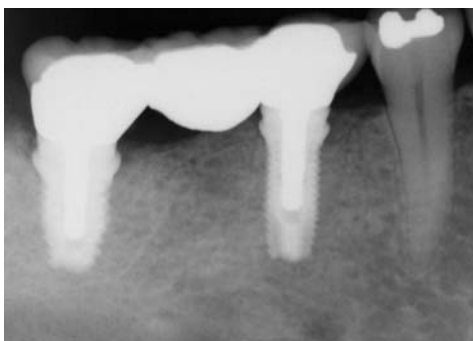


Figure 8

larger diameter implant seating surface, to attempt to preserve the crestal bone around the short implant. Since there was no incision and subsequent need for soft tissue closure with sutures, healing was relatively painless and uneventful. Radiographic verification of full seating of the healing abutments to the implants was noted (Figure 2) and the patient was discharged with antibiotic and anti-inflammatory prescriptions.

RESTORATIVE TREATMENT

Eight weeks following implant placement, the healing abutments (Figure 3) were removed (Figure 4) and the implants were confirmed to be stable. An implant level impression was made using appropriately sized Pick-Up type implant impression copings. The impression copings were inserted into the internal interface of the implants with an audible and tactile “click” that ensured complete seating. An intraoral radiograph was taken to verify complete seating of the impression copings (Figure 5) and a definitive implant level impression was made. The healing abutments were placed back into the implants. An impression of the opposing arch, interocclusal registration and shade selection were sent to the commercial dental laboratory for fabrication of custom UCLA Abutments and a PFM three-unit cement retained fixed partial denture, as illustrated in Figure 6.

The healing abutments were removed and the custom abutments were placed onto the implants. The abutments were secured with Gold-Tite® Abutment Retaining Screws and tightened to 20Ncm of torque. Screw tightness was verified with a Restorative Torque Indicator. The screw access holes of the custom abutments were filled with a protective material (composite resin over cotton) and the three-unit PFM FPD (Fixed Partial Denture) was tried in. Following radiographic verification that the retainers of the FPD were completely seated onto the custom abutments, the FPD was adjusted for optimal occlusion and secured to the abutments with Durelon™ cement (Figures 7 and 8). The patient was instructed on proper self-care and dismissed.

CLINICAL OVERVIEW

Extraction of the hopeless teeth and immediate grafting with bone was performed prior to implant placement due to the minimal amount of available bone for implant placement above the inferior alveolar canal. The clinician’s choice of performing a single-stage surgical protocol and tissue punch technique for implant placement reduced post-operative discomfort and promoted faster healing. This case demonstrates crestal bone preservation in a mandibular posterior quadrant, in an area of limited bone height above the inferior alveolar canal. In order to preserve the height of the existing bone, the clinician chose to platform switch an expanded platform implant in tooth position #31 and place a Certain® PREVAIL™ Implant in tooth position #29. At the try-in appointment, both implant sites demonstrated radiographic preservation of the crestal bone. The unique benefits of the new Certain PREVAIL Implant include having Platform Switching™ built into the coronal aspect of the implant. This feature avoids confusion in selecting mismatched sized components at the surgical, restorative and laboratory phases.

Clinical Indication: The Anterior Aesthetic Zone

Clinical Treatment By Dr. Roberto Cocchetto (ITALY)

INITIAL PATIENT PRESENTATION

A 28-year-old male patient presented with nonrestorable maxillary central incisors that had previously been treated endodontically before being fractured by trauma. The patient desired a fixed restoration.

DIAGNOSIS

- Nonrestorable, fractured, maxillary central incisors
- Healthy, stable, soft-tissue
- Adequate bone to support placement of dental implants

TREATMENT

- Atraumatic removal of fractured, maxillary central incisors and debridement of extraction sockets
- Immediate placement of two 5mm x 13mm Certain® PREVAIL™ (internally interfaced) Implants and EP® Healing Abutments in a single-stage protocol
- Three days post implant placement, placement of two GingiHue® Posts and two immediate non-occlusal loaded acrylic resin provisional crowns
- Osseointegration
- Two months post implant surgery, placement of definitive metal-ceramic crowns

SURGICAL TREATMENT

The fractured, non-restorable maxillary central incisors (Figures 1 and 2) were carefully extracted and two 5mm platform diameter x 13mm length Certain Prevail Implants were placed in a single-stage protocol with the aid of a surgical guide. To facilitate the implant osteotomies, the surgical procedure was accomplished without an incision. This flapless approach was done in order to minimize trauma to the buccal cortical plate and interproximal height of bone, and to preserve the interdental papillae in this highly visible aesthetic zone. The specific implant diameters and lengths were selected based on the size and shape of the extraction sockets. A polyether impression was made and sent to the laboratory for the development of a master cast.



Figure 1

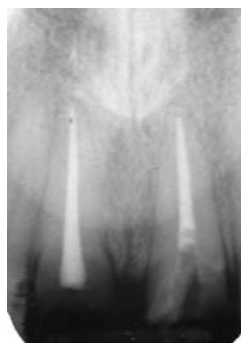


Figure 2



Figure 3

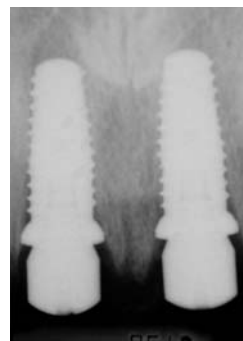


Figure 4



Figure 5



Figure 6



Figure 7

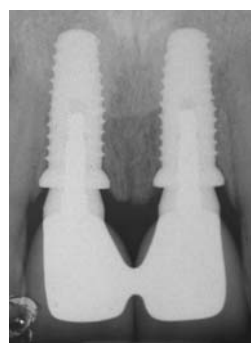


Figure 8

EP® (Emergence Profile System) Healing Abutments with 5mm emergence profiles and 4.1mm restorative platforms were placed onto the implants in lieu of cover screws (Figures 3 and 4). The patient was then discharged with antibiotic and anti-inflammatory medications.

RESTORATIVE TREATMENT

After three days, two 4.1mm GingiHue® Posts (with Emergence Profile diameters of 5mm) were placed. GingiHue Posts are manufactured with gold colored titanium nitride coatings to prevent a gray cast showing through at the soft tissue margin. These were prepared by the dental technician on the master cast. The prepared abutments were inserted into the internal interface of the implants with an audible and tactile “click” to ensure complete seating. Following radiographic verification, the abutment screws were torqued to 20Ncm. Two acrylic resin provisional crowns were fabricated without occlusal contacts (based on an immediate non-occlusal loading protocol) and secured to the abutments with temporary cement (Figures 5 and 6).

The patient was given instructions to perform twice daily gentle brushing with a toothpaste containing chlorhexidine and to avoid any functional loading on the crowns for eight weeks.

Following an uneventful two-month healing period, osseointegration was confirmed and two splinted metal-ceramic crowns were placed. The definitive crowns were constructed on duplicate abutments with a soft tissue transfer impression through the use of resin transfer copings. The pre-programmed buccal margin of the abutments, 1mm coronal to the implant platform, was 2mm below the facial gingival margin. The definitive crowns were splinted, at the request of the patient, who had the provisional crowns splinted and felt greater confidence and security (Figure 7). The prognosis for maintenance of the interdental papillae was excellent.

CLINICAL OVERVIEW

Atraumatic, flapless removal of fractured maxillary central incisors and debridement of the extraction sockets was performed to decrease surgical trauma and increase the potential to preserve the buccal plate of bone. The treating clinician’s decision to place two large diameter Certain® PREVAIL™ (internally interfaced) Implants was made to facilitate full engagement of the bony walls of the extraction sockets, completely obturate the occlusal aspect of the extraction sites, preserve crestal bone, as well as maintain the interdental papillae in this highly aesthetic smile zone. Twelve months post-implant placement (ten months post-occlusal loading), there was radiographic evidence of successful osseointegration and crestal bone preservation was observed (Figure 8).

Clinical Indication: Papilla Preservation Adjacent To Teeth

Clinical Treatment By Dr. Roberto Cocchetto (ITALY)

INITIAL PATIENT PRESENTATION

A non-smoking 45-year-old female patient in good health presented with a failing, maxillary right first bicuspid. The tooth had previously been treated with endodontic therapy and was restored with a PFM crown. There was a fistula present with mesial furcation involvement. The combined lesions and the presence of adjacent clinically acceptable PFM crowns eliminated the possibility of performing periodontal resective surgery, without compromising the adjacent teeth and overall aesthetics. The prognosis for retreatment of the tooth endodontically was poor. The patient desired a fixed restoration to replace her failed natural tooth. A treatment plan was developed that avoided compromising the adjacent dentition.

DIAGNOSIS

- Nonrestorable, failed, maxillary right first bicuspid (combined periodontal/endodontic lesion)
- Healthy, stable soft-tissue
- Inadequate bone volume for placement of a dental implant (grafting would be required)

TREATMENT PLAN

- Atraumatic removal of the maxillary right first bicuspid debridement of the extraction socket, placement of synthetic bone graft material and an OSSIX™ Membrane
- Osseous healing (four months)
- With a single-stage protocol, flapless placement of a 4mm x 13mm Certain® PREVAIL™ (internally interfaced) Implant, placement of a 4mm x 5mm Encode® Healing Abutment and impression of the Encode Healing Abutment
- Osseointegration (12 weeks)
- Placement of the definitive Encode Abutment and provisional crown
- Placement of the definitive PFM crown onto the Encode Abutment three months following abutment connection

SURGICAL TREATMENT

The hopeless maxillary right first bicuspid (Figure 1) was carefully extracted in a flapless procedure. Following socket debridement, synthetic bone graft material was placed into the extraction socket. An OSSIX Membrane was placed and a soft tissue graft was used to cover the membrane (Figures 2 and 3).

After four months of healing, (Figure 4) a 4mm platform diameter x 13mm length Certain PREVAIL Implant was placed in a single-stage protocol. A full thickness flap\



Figure 1

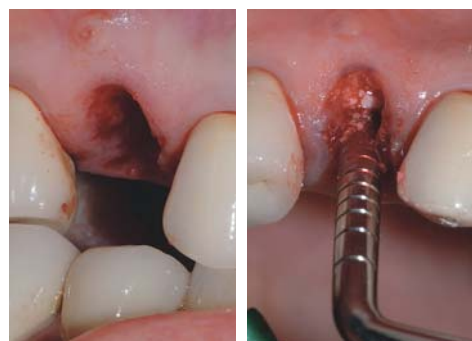


Figure 2

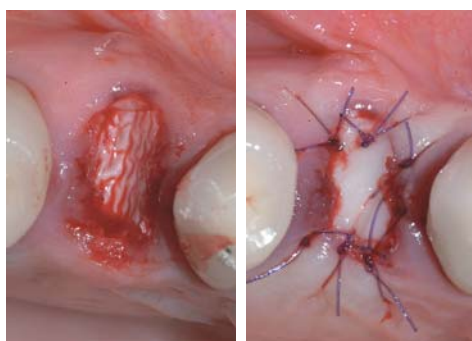


Figure 3



Figure 4



Figure 5

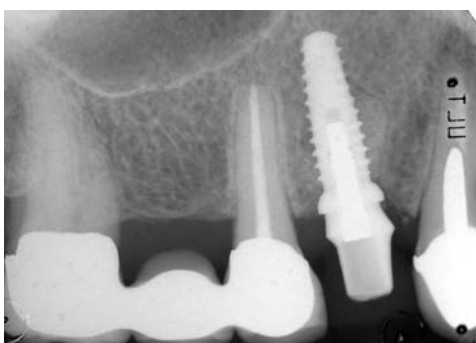


Figure 6



Figure 7

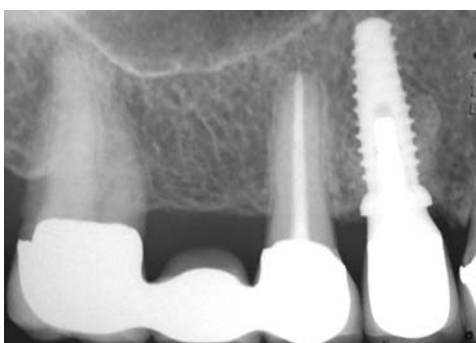


Figure 8

was not made in the soft tissue to facilitate implant placement, but rather, the clinician used a 5mm tissue punch to protect the integrity of the soft-tissue margins on the adjacent PFM crowns and expose the implant site. The specific implant diameter and length was selected based on the size and shape of tooth to be replaced and the adjacent natural dentition.

A 4mm tall transmucosal Encode® Healing Abutment was placed into the internal interface of the implant. An intraoral radiograph was taken for verification (Figure 5) and an impression was made of the Encode Healing Abutment. An alginate impression was also made of the opposing arch. The patient was discharged with antibiotic and anti-inflammatory prescriptions. The impressions, interocclusal registration and shade selection were sent to the dental laboratory. In the dental laboratory the master cast was articulated and sent to **3i** for fabrication of an Encode Abutment for a patient specific abutment.

RESTORATIVE TREATMENT

After 12 weeks, successful osseointegration was verified. The Encode Healing Abutment was removed and the definitive Encode Abutment was placed into the internal interface of the implant. A Gold-Tite® Hexed Abutment Screw was placed to secure the abutment to the implant and the screw tightness was verified at 20Ncm with a Restorative Torque Indicator. An intraoral radiograph was taken to verify complete seating of the abutment (Figure 6) and a laboratory processed provisional crown was tried in. The occlusion was verified and the provisional crown was cemented. The patient was given instructions for proper self care and discharged.

Three months post-placement of the Encode Abutment and provisional crown, the patient was seen for placement of the definitive PFM crown. The definitive crown was fabricated from a duplicated abutment following the clinician's original laboratory protocol. There was no need for an additional impression to be made because the facial gingival margins had remained stable after implant placement. An intraoral radiograph was taken that verified crown adaptation to the abutment and the patient was discharged with instructions for proper self care (Figures 7 and 8).

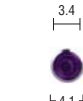
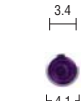








CLINICAL OVERVIEW

In this case, atraumatic removal of the failed maxillary right first bicuspid, was followed by grafting of the extraction site and healing for four months. An Encode® Healing Abutment was placed at the time of implant placement. The minimal surgical approach (single-stage, flapless protocol) minimized soft-tissue changes. The restorative protocol followed in this case saved chairtime and generated minimal post operative discomfort. From a biological point of view, placement of the Certain® PREVAIL™ (internally interfaced) Implant and Encode Healing Abutment facilitated maximum preservation of the crestal and facial bone, as well as the interproximal papillae. It has been demonstrated in the dental literature¹ that multiple abutment connections and disconnections can trigger inflammation and bone resorption.

1. Abrahamsson I, Berglundh T, Linde J. The mucosal barrier following abutment dis/reconnection. An experimental study in dogs. J Clin Periodontol 1997;24(8):568-572.

Product Information

Certain® PREVAIL™ Implants

					
	1.5mm	0.5mm	1.5mm	0.5mm	1.5mm
	2.4mm	2.6mm	2.6mm	3.1mm	3.1mm
Length	3/4/3mm (D)	4/3mm (D)	4/5/4mm (D)	5/4mm (D)	5/6/5mm (D)
8.5mm	IIOS3485	IIOS4385*	IIOS4585	IIOS5485*	IIOS5685
10mm	IIOS3410	IIOS4310*	IIOS4510	IIOS5410*	IIOS5610
11.5mm	IIOS3411	IIOS4311*	IIOS4511	IIOS5411*	IIOS5611
13mm	IIOS3413	IIOS4313*	IIOS4513	IIOS5413*	IIOS5613
15mm	IIOS3415	IIOS4315*	IIOS4515	IIOS5415*	IIOS5615
Flat Cover Screw (included)					
	IMCSF34	IMCSF34	ICSF41	ICSF41	ICSF50

All indicated measurements are in millimeters.

* Straight Collar Certain PREVAIL Implants will be available in the Fall of 2006.

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