c.e. article
Esthetic replacement of maxillary premolar with immediate implant placement

events
AAID presents conference on ‘Managing Bone Deficiencies’

industry
The iSy system offers ‘true flexibility’ for variety of treatments
| c.e. article |
| 04 | Esthetic replacement of maxillary premolar with immediate implant placement and metal ceramic crown over CAD/CAM abutment  
    _Larry R. Holt, DDS, FICD |
| 08 | Fixed and removable implant restorations: A solution for every arch  
    _Paresh B. Patel, DDS |

| events |
| 16 | AAID presents conference in June on ‘Managing Bone Deficiencies’ |

| industry |
| 18 | The iSy system approach offers ‘true flexibility’ for wide variety of treatments |
| 20 | Dentsply Sirona introduces the INTEGO Transcendental Treatment Center |

| about the publisher |
| 22 | Imprint |

| on the cover |
| Cover image provided by Dr. Paresh B. Patel. See his article on page 8. |
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Esthetic replacement of maxillary premolar with immediate implant placement and metal ceramic crown over CAD/CAM abutment

**Author**: Larry R. Holt, DDS, FICD

This article describes treatment to solve a common dental complication (loss of tooth due to vertical root fracture). Contemporary implant therapy and subsequent CAD/CAM laboratory procedures provide an elegant solution to this patient’s dental emergency. Treatment was accomplished during a period of approximately six months.

The patient is a healthy, 52-year-old female with an unremarkable medical history. Her dental history and general dental health are excellent. Unfortunately, she suffered a vertical fracture of tooth #5, which necessitated its extraction (Fig. 1).

The treatment plan was for extraction and immediate implant placement with concurrent bone grafting as required. A temporary partial was planned to provide esthetic replacement and to support and shape tissue during the healing process. Final restoration was to be a cemented PFM crown supported by an Atlantis gold hue abutment.

Material selection was based on patient’s cross bite occlusion that transitions from normal to cross bite across this particular tooth’s occlusal table. Crown and abutment could potentially be subject to occlusal stress due to this transitional relationship.

A restoration that provides maximum strength was desirable for long-term stability of the restoration. The patient has a thin biotype, and the gold hue abutment provides both strength and the gold color that provides a more natural tissue color. The gold color provides “warmth” of color in the critical transmucosal region. Titanium abutments provide strength but can telegraph a greying affect on thin tissues.

Treatment began with a preoperative appointment to take necessary records (impressions of both arches, facebow transfer, shade taking, bite registration and clinical photography). Prescription to lab was provided ordering a partial denture fabricated from duracetyl resin and to develop a tooth born surgical guide. Lab was instructed to simulate the extraction site by removing the tooth from the study cast provided. This model was duplicated for fabrication of the two appliances.

Laboratory product was provided to surgeon. Atraumatic extraction was accomplished and immediate implant (Legacy Three, Implant Direct) placed with facial bone grafting (Figs. 2-3).

There was a healing screw placed and site was closed with appropriate membrane and suturing techniques. The unilateral partial was not delivered at time of surgery. Patient was seen in restorative office, and the partial (Duratek, Drake Precision Laboratories) was modified to provide tissue support.
and begin development of an ovate tissue site. Partial was delivered uneventfully. These appliances are extremely retentive and not subject to dislodgement or pressure over the implant site during function. Patient was seen at one week for postoperative check and adjustment of temporary appliance (Fig. 4).

Patient was instructed to return to surgical clinic in approximately four months for final evaluation prior to restorative procedures.

Four months after surgery, the patient was seen by surgeon to uncover the implant, remove the healing screw and place a temporary abutment. The temporary partial was adjusted to accommodate the added height of the healing abutment (Fig. 5). Patient was

**Fig. 3.** Bone grafting and membrane placement.

**Fig. 4.** Temporary Duratek partial.

**Fig. 5.** Healed implant site with healing abutment.

**Fig. 6.** Well-healed mucosa.

**Fig. 7.** Placement of impression coping.

**Fig. 8.** Final PVS impression.
instructed to return to restorative office for definitive restoration of the implant in approximately three weeks.

Patient was appointed with restorative office for evaluation and to develop necessary records for laboratory fabrication of the definitive restoration. Implant site was evaluated and deemed adequately healed to proceed with restorative procedures (Fig. 6).

Healing abutment was removed and a closed tray impression coping was fitted onto the implant (Fig. 7). Radiograph was taken to confirm complete seating of the impression coping. A full-arch impression was taken with heavy body PVS impression material (Panasil Tray Soft, Heavy Body Regular Set, Kettenbach GmbH) (Fig. 8).

Healing abutment was replaced once impression was taken. A bite registration (Futar D Fast Set Kettenbach GmbH), new opposing impression (Silginate plus Panasil Light Body Fast Set, Kettenbach GmbH) and shade map were taken. All clinical product was sent to laboratory along with shade photography and a complete written prescription. A PFM high noble crown and Atlantis gold hue custom abutment were prescribed. The abutment was ordered as tissue contouring with 1 mm deep margin placement circumferentially (Atlantis, Dentsply Implants).

The use of a custom abutment allows modification of transmucosal tissue profile and to ideally position margins. Tissues were previously shaped with the ovate pontic of the temporary partial. The final crown was planned to be chairside custom stained. Lab was cautioned that occlusion on this restoration was in the path of patient’s crossbite transition from normal to crossbite. The laboratory (Drake Precision Dental Laboratories, Charlotte, N.C.) partnered with Atlantis (DENTSPLY Implants) for abutment design and milling and then fabricated the PFM crown (Figs. 9–10). The patient was appointed for definitive restoration delivery.

Delivery appointment was uneventful. Healing abutment was removed and the Atlantis abutment was placed (Fig. 11). Because of positive tissue pressure from tissue contouring, the abutment was slowly placed with incremental turns of the retention screw. Tissue blanching was carefully observed.

The abutment was fully seated and, within five minutes, tissue blanching had disappeared. The Atlantis abutment was torqued to manufacturer’s specifications (30 Ncm). A radiograph was taken to confirm final seating of the abutment.

The PFM crown was tried on and interproximal contacts adjusted to allow complete seating of the crown. Occlusion was marked with appropriate articulation ribbon and adjustments were accomplished, with particular attention to functional path and centric contacts.

The final occlusion respected the cross bite while providing a light occlusal contact that became normal in intensity upon biting force. All functional contact was adjusted to be in minimal contact during excurs-
Adjacent teeth provided partial group function.

Once all clinical adjustments were done, a laboratory technician was consulted for final shade matching. The initial shade was very close to ideal. The technician accomplished minor modifications (minimal characterization staining and reduction in final surface gloss). Proximal contacts and occlusal table were polished after final glazing.

The crown was lined with silicone tape and then bite registration material was injected into the crown to fabricate a cementation jig (Fig. 12). This step is very important to avoid excess cement extrusion during final seating of the restoration. All pre-cementation procedures were completed, including approval by patient of both esthetics and bite comfort. Abutment screw access hole was sealed with silicone tape, respecting the external contours of the abutment to allow complete seating of the restoration. This is a critical step to maintain patency for future access to retention screw.

The crown was steam cleaned and thoroughly dried. Intraorally, the abutment was thoroughly cleaned and dried in preparation for cementation procedures. Attending dental assistant maintained cheek retraction and dry field.

The walls of the crown were lined with implant cement (Dental Implant Cement, radiopaque, Premier). The crown was then seated on the previously fabricated cementation jig to extrude excess cement. Cement adaptation to internal walls of crown was confirmed and the crown was seated over the custom abutment. Excess cement was removed by combination of hand instrumentation and dental floss after initial cement setting.

The crown was left under biting pressure with cotton roll over occlusal table for five more minutes to allow for cement to fully set. Mettulous inspection of sulcus was accomplished to remove any vestige of implant cement. Postoperative radiograph was taken to evaluate complete seating of crown and to confirm removal of any excess radiopaque cement. Occlusion was confirmed and patient was dismissed. One-week recall was accomplished to confirm occlusion and to reevaluate soft-tissue response to the restoration.

This case study reveals the potential for implant-supported tooth replacement. Esthetic result was excellent, and final gingival contours were consistent with adjacent dentition. The tissue color was natural and did not reveal any hint of the underlying implant or abutment. Restoration margins were concealed within the gingival sulcus. This treatment provided an elegant solution for this all-too-common dental emergency. The patient was extremely pleased with the result (Figs. 13-15). _Note: The author would like to express gratitude to Drake Precision Dental Laboratories (Charlotte, N.C.) for all services provided for this treatment. In addition, Dr. Todd Engle, DDS, (Charlotte, N.C.) provided extraordinary care during extraction and immediate placement of implant._

References


Fig. 13, Final patient lateral smile.
Fig. 14, Final restoration retracted.
Fig. 15, Final restoration occlusal view.

_About the Author_

Larry R. Holt, DDS, FICD, graduated from the UNC School of Dentistry in 1978. He was in private practice from 1978-2008. Since 2008, he has been the director of clinical education and research at Drake Precision Dental Laboratories in Charlotte, N.C.
Fixed and removable implant restorations: A solution for every arch

Author: Paresh B. Patel, DDS

When a patient presents with an edentulous arch or terminal dentition, implant treatment can be provided that improves not only form and function but also quality of life. For patients desiring better chewing capability, stability, esthetics and comfort than a traditional denture can offer, both removable and fixed implant restorations are superior alternatives. While the appropriate implant solution can vary depending on the patient's oral health, anatomy, quality and quantity of bone, and financial resources, full-arch prosthetics have progressed to the point where virtually every patient can be restored.

Although fixed, implant-supported restorations offer the highest levels of stability, function and patient satisfaction, removable overdentures are a dramatic improvement over conventional complete dentures as well. Both treatment options effectively mitigate the bone resorption that occurs following the loss of teeth, helping to preserve the oral and facial structures and, by extension, the self-confidence of the fully edentulous patient.

Determining which solution is appropriate requires a careful evaluation of the individual patient’s circumstances and desires. Even when an implant overdenture is delivered, the prosthesis can eventually be converted to a fixed restoration.

As evidenced by the case that follows, in which one arch is restored with an implant overdenture and the other with a BruxZir® Full-Arch Implant Prosthesis, practitioners today have a great deal of clinical flexibility. Whatever prosthetic approach is adopted, immediate, life-changing relief can be provided to patients suffering from terminal dentition or an uncomfortable, poorly functioning traditional denture. Further, the dramatic overhaul of this patient’s oral health demonstrates the life-changing capabilities of implant therapy, which helped him overcome severe functional and esthetic challenges that were impacting practically every facet of his life prior to treatment.

Case presentation

A 47-year-old male presented with terminal dentition in both arches resulting from periodontal disease and severe caries (Figs. 1a–1c). The patient had already lost many of his teeth, and the dentition that remained had been rendered unstable by his periodontal condition (Fig. 2). He had saved up enough money for a fixed implant restoration for his upper arch, for which he desired the most functional, lifelike prosthesis possible. While he couldn’t afford such a restoration for both arches, he wanted a retentive appliance for his mandible, with the option of later upgrading to a fixed prosthesis.

The patient accepted a treatment plan in which his maxilla would be restored with a BruxZir Full-Arch Implant Prosthesis and his mandible with an Inclusive® Locator Implant Overdenture. Fabricating his maxillary restoration from monolithic zirconia would ensure maximum long-term durability. This was important given the relatively young age of the patient, who would not have to worry about his upper prosthesis succumbing to fractures, chips or stains.

His lower appliance would be held in place by connecting to the implants via Locator® attachments (Zest Anchors; Escondido, Calif.), which are an economical means of improving prosthetic retention and stability. The overdenture caps that connect to the Locator attachments would be incorporated in the prosthesis chairside, though it should be noted that many clinicians elect to have the laboratory handle this step.

The surgical phase of treatment called for the ex-
traction of the patient’s remaining teeth followed by the immediate placement of eight dental implants. CBCT scans were taken to help determine the optimal placement of the implants within the available bone and away from the patient’s vital oral anatomy. Evaluation of the CBCT scan determined that there was sufficient height, width and quality of bone to place the implants in the appropriate locations and angulations via freehand surgery. Four 3.7 mm Inclusive Tapered Implants (Glidewell Direct; Irvine, Calif.) would be placed in each arch to support the fixed maxillary restoration and the removable mandibular prosthesis.

At the surgical appointment, the patient’s remaining teeth were removed, and a flap was raised to visualize the socket sites and areas of implantation. Bone leveling was performed on the patient’s maxillary arch to elevate the patient’s smile transition line above the upper lip.

The maxillary osteotomies were positioned to facilitate an All-on-4 configuration, with the posterior implants tilted to maximize the anterior-posterior (A-P) spread, avoid the sinuses and accommodate the patient’s bone limitations (Fig. 3). Osteotomies were created for the placement of four mandibular implants, as opposed to the minimum of two required for a Locator overdenture. This would enhance retention of the overdenture while affording the possibility of upgrading to a fixed restoration at a later time.

Following creation of the osteotomies, the implants were placed (Figs. 4a–4c). Inclusive Multi-Unit Abutments (Glidewell Direct) were attached to the maxillary implants, correcting for the divergent angulation of the implants. This would both position the restorative platform in a manner that would situate the screw access holes of the eventual prosthesis toward the lingual aspect and allow for a molar-to-molar restoration (Fig. 5).

Note that when patients present for treatment with terminal dentition, they are commonly anxious about losing their teeth and the effect this
will have on their speech and chewing capabilities. For this reason, it is important to make every effort to ensure that the patient leaves with functional appliances in place.

Thus, traditional dentures were fabricated from preliminary impressions in advance of the surgical appointment for modification and delivery following placement of the implants (Fig. 6).

Having achieved sufficient primary stability, the Inclusive Tapered Implants placed in the patient’s maxilla could be immediately loaded. Thus, the upper denture was trimmed and modified chairside to connect to the multi-unit abutments through temporary cylinders (Figs. 7a, 7b).

This would satisfy the patient’s desire to leave the surgical appointment with a fixed, fully functional maxillary prosthesis in place. Note that the two distal-most molars were removed to minimize the cantilevers and the forces transmitted to the implants during osseointegration. Healing abutments were placed in the mandibular implants to begin developing the transmucosal passages. The lower immediate denture was then modified and relined to seat over the implants during healing.

This approach provided the patient with same-day temporary restorations, and he walked out of the office with properly functioning teeth for the first time in many years. The effect this had on the patient’s comfort, function and appearance was immediate and profound (Figs. 8a, 8b). The final radiograph taken after seating the temporary appliances confirmed excellent positioning of the implants (Fig. 9).

The patient returned after three and a half months of healing so the stability of the implants and health of the soft tissue could be evaluated. Removal of the temporary appliances revealed excellent tissue health around the healing abutments of the mandible and multi-unit abutments of the maxilla (Figs. 10a, 10b). Vinyl polysiloxane (VPS) impressions were taken to begin the restorative process (Figs. 11a–11c). Because multi-unit abutments and healing abutments were placed on the day of surgery, the restorative process began above the tissue level, without any need for secondary surgery or anesthetization.

The restorative protocol for both prostheses included wax rims and setups, which the lab produced on the working casts fabricated from the impressions (Figs. 12a, 12b). The maxillary wax rim incorporated temporary cylinders through which screws could connect to the dental implants. The lower wax rim was designed to seat over Locator attachments.

At the next appointment, the wax rims were seated, the jaw relationship was recorded using conventional denture technique, and a bite registration was taken (Figs. 13a, 13b). A VPS “wash” impression of the mandibular arch was also taken with the wax rims and Locator impression caps in place (Fig. 14). This would aid the lab in designing an overdenture that fully rests on the tissue instead of the implants.

The case was returned to the lab, and wax setups...
were produced (Figs. 15a–15c). During the try-in appointment, the wax setups were evaluated to confirm the vertical dimension of occlusion, interocclusal relationship, phonetics, esthetics, midline, teeth arrangement, tooth color and shape, incisal edges, and function (Figs. 16a–16c).

After final approval of the wax setups, the restorative protocols for the two prostheses diverged, as the lab moved directly to the final implant overdenture from the approved wax setup, while the process for the BruxZir Full-Arch Implant Prosthesis included an implant verification jig, custom final impression, and provisional implant prosthesis. These extra measures were taken to make absolutely certain that the definitive prosthetic design was accurate before milling the final restoration from monolithic zirconia.

The implant verification jig was attached to the implants so a precise final impression could be taken (Figs. 17a–17c). The custom tray provided by the lab was filled with VPS material and seated over the implant verification jig. As the VPS material set, the relative positions of the implants represented by the verification jig remained fixed, ensuring an extremely accurate final impression.

The approved wax setups and final maxillary impression were returned to the lab so the final mandibular implant overdenture and maxillary provisional implant prosthesis could be produced. The final lower appliance was fabricated on the master cast and included recess wells in which metal housings with overdenture caps would be cured chairside (Figs. 18a, 18b). These denture caps provide retention and stabilize the prosthesis by seating over the Locator attachments and keeping the appliance in place during function.

A new master cast of the maxilla was produced based on the custom open-tray final impression. The new master cast and final-approved wax setup were scanned. A virtual model was generated upon which the fixed monolithic prosthesis was designed using CAD software (Figs. 19a, 19b). Because this digital model was based on the final impression containing the verification jig, screw access holes were created in precise alignment with the positions of the maxillary implants.

The CAD design was used to mill a provisional implant prosthesis from poly(methyl methacrylate) (PMMA) (Figs. 20a, 20b). This appliance was tried in and worn for a trial period, thus ensuring an accurate prosthetic design. The provisional implant prosthesis is an essential element of the restorative process, as significant adjustments cannot be made to the final restoration once it has been milled from BruxZir Solid Zirconia.

At the following appointment, the Inclusive Locator Implant Overdenture was seated and checked for proper fit, function and support from the soft tissue. Then the provisional implant prosthesis was screwed into place, and its teeth positioning, function and
For the recording of jaw relations, the lower wax rim was designed to seat over the Locator attachments, while a screw-down wax rim was created for the upper.

Upper wax rim was screwed into place through the temporary cylinders while lower wax rim was seated over Locator impression caps.

A VPS wash impression was made of the mandibular arch, capturing the positions of the Locator attachments as well as the gingival contours and vestibules.

The lab produced wax setups for try-in. The upper included temporary cylinders so setup could be attached to the implants during evaluation. The lower setup included recess wells so it could be seated over the Locator attachments and soft tissue.

The upper and lower wax setups were tried in to evaluate fit, esthetics, occlusion and function.

Individual sections of the implant verification jig were seated and luted together before being picked up in the open-tray final impression, which was made using a custom tray and Capture VPS material (Glidewell Direct).

Final lower implant overdenture was designed to seat over Locator attachment analogs situated in the mandibular cast. This would allow the overdenture caps that engage the Locator attachments to be picked up chairside.

CAD software was used to design the definitive prosthesis for the patient’s maxilla based on the final impression and approved wax setup. Access holes were created in the precise positions needed for passive fit.

The provisional implant prosthesis was milled and seated on the master cast to verify a proper fit as well as the interocclusal relationship with the opposing implant overdenture.
esthetics were verified (Figs. 21a, 21b). With both appliances in place, the interocclusal relationship was checked (Figs. 22a, 22b). Minor occlusal adjustments were made directly to the maxillary provisional implant prosthesis, as PMMA is easily modified.

Slight alterations were also made to the lower implant overdenture. Then, blockout shims and the retentive overdenture caps were seated over the Locator attachments (Figs. 23a, 23b). Quick Up self-cure material (VOCO America; Indian Land, S.C.) was added to the recess wells of the overdenture before seating the appliance over the metal housings.

After letting the material set for approximately three minutes, the overdenture was removed, picking up the denture caps in the prosthesis. The minor voids surrounding the denture caps were then filled with Quick Up light-cured pink composite (Fig. 24). The appropriate retentive inserts, which are available in a variety of strengths depending on the functional capabilities of the patient and the number of implants, were swapped into the metal housings (Fig. 25). The implant overdenture was reseated, providing excellent retention, stability and function for the patient.

With the final mandibular restoration in place, the patient wore the provisional full-arch implant prosthesis for a trial period of two weeks (Fig. 26). This opportunity to wear the appliance during actual day-to-day function instilled a high degree of confidence in the prosthetic design for the patient and doctor alike. Following patient approval, the provisional implant prosthesis was returned to the lab so it could serve as the blueprint for the final restoration and the minor adjustments made to the appliance could be included in the definitive prosthetic design.

Figs. 21a, 21b. After seating the final lower implant overdenture, the maxillary provisional implant prosthesis was tried in to verify fit, form and function.

Figs. 22a, 22b. The interocclusal relationship was verified with the final lower and provisional upper appliances in place.

Figs. 23a, 23b. The metal housings of the overdenture caps were seated over the Locator attachments.

Figs. 24. Quick Up cold-cure acrylic was used to pick up the metal housings in the overdenture and fill in the minor voids between the denture caps and recess wells of the prosthesis. Note: In many cases, the doctor elects to have the overdenture caps processed by the lab.

Fig. 25. The black processing inserts were replaced with the appropriate retentive caps, which are color-coded according to strength.

Fig. 2. Patient with the final Locator overdenture and the upper provisional implant prosthesis in place.

Fig. 27. The definitive maxillary restoration was milled from BruxZir Solid Zirconia, incorporating the slight adjustments that were made to the PMMA provisional appliance.
The final BruxZir Full-Arch Implant Prosthesis was digitally fabricated with precision (Fig. 27). As an exact reproduction of the test-driven provisional, the definitive prosthesis fit perfectly and offered the esthetics and function the patient had come to expect (Figs. 28a, 28b). The final restoration effectively addressed the unique circumstances of the case, providing the most durable, stable prosthesis possible for his upper and a lower restoration that greatly improves prosthetic retention and can be upgraded to a fixed prosthesis should the patient’s situation change.

**Conclusion**

Practitioners now have the clinical flexibility to offer patients a wide range of treatment options, from entry-level, economical restorations like the Inclusive Locator Implant Overdenture, to the fixed, highly durable BruxZir Full-Arch Implant Prosthesis. There is a viable means of treating nearly all patients, whatever their oral health, needs and finances. Provided the life-changing benefits of implant therapy and the straightforward restorative protocols of today, all patients should be offered this service to confront the challenges confronting the challenges presented by complete edentulism.

**References**


**About the Author**

Paresh B. Patel. DDS, graduated from the University of North Carolina at Chapel Hill School of Dentistry in 1996. He graduated from the Medical College of Georgia/American Academy of Implant Dentistry MaxiCourse in 2009. He has been in private practices in Lenoir and Mooresville, N.C., from 1996 through the present. Patel is a founding member and on the editorial board of Journal of the International Academy of Mini Dental Implants. He is a clinical instructor at the Reconstructive Dentistry Institute and a diplomate of American Academy of Small Diameter Implants. Patel was president of the Iredell County Dental Society in 2012; is a member of the American Dental Association, the North Carolina Dental Society and the American Academy of Implant Dentistry; and is a clinical consultant on dental implants and prosthetics. He lectures nationally on implant and restorative dentistry, and he has published numerous articles in leading dental journals.
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• “Maxillary Bone Expansion” with James W. Gibney, DMD, JD
• “Vascularized Ridge Split Procedure” with Rajiv Patel, BDS, MDS, FAAID, DABOI/ID
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• “Biologic Strategies to Enhance Bone Grafting Success in Oral Implantology” with Robert J. Miller, DDS, MA, FAAID, DABOI/ID
• “Dueling between Perspective & Point of View: Science and Practice of Implant Dentistry” with Touraj Ameli, MSc, DMD, FAAID, DABOI/ID
• “Restoring Atrophic Bone — Advanced Grafting Techniques and Short Implants” with Raul R. Mena, DMD, FAAID, DABOI/ID
• “When Titanium Becomes Toxic” with William Locante, DDS, FAAID, DABOI/ID

The two-day conference will conclude with the “Case Studies: You Decide” program. Various clinicians present a case history and attendees are split into small groups to discuss the treatment options. Each group reports its approach and concerns about potential complications to the full audience. The clinician discusses the actual treatment plan and results.

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The iSy system offers ‘true flexibility’ for wide variety of treatments

Author_Henry Schein Dental Surgical Solutions Staff

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1. Digital: A digital treatment workflow can be done with or without the implant base. Transgingival healing provides easy access to the final abutment and allows for optimal hard- and soft-tissue healing. When ready for impression, the multi-functional cap offers you the ability to use an intraoral impression scanner. The customized final restoration can be affixed to the implant base and delivered with minimal effort.

2. Conventional: A conventional treatment workflow can be done with or without the implant base. Submerged healing allows for undisturbed integration throughout the healing process. A gingiva former will sculpt the soft tissues. When ready for impressions, open or closed tray impression copings are available. The final restoration is completed using pre-made abutments with a traditional PFM crown.

3. Combined: The flexibility of iSy is showcased with this final example. Conventional and digital treatment workflows can be combined to provide a customized final result. The pre-mounted implant base with a multifunctional cap is used to take a traditional impression.

The dental lab will scan the iSy scan post within an implant analog or scan the implant base using the second multifunctional cap. The final result will be a customized restoration made iSy and designed to create satisfied patients.

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Dentsply Sirona, “The Dental Solutions Company™”, is proud to continue its tradition of innovation and award-winning design with its INTEGO Transcendental Treatment Center. Designed for easy expansion and integration of all current and future technologies, INTEGO sets the stage for the ultimate operatory experience for both clinician and patients at competitive pricing, the company asserts.

INTEGO allows practitioners to integrate all components of digital dentistry, including CAD/CAM tablet peripheral equipment, into one unit, streamlining workflow while increasing efficiency. Ergonomically built to ensure optimum patient comfort while maximizing clinical proficiency, INTEGO exceeds the industry standard for digital practice growth and performance, according to the company.

INTEGO is available in two flexible models, the INTEGO TS (Traditional Delivery) and INTEGO CS (Continental Delivery). Both the INTEGO TS and INTEGO CS are equipped with an EasyTouch user interface that provides complete control of all operatory instruments via the touch screen. A 22-inch medical grade monitor screen allows the clinician to better showcase patient treatment modules, including intra-oral and X-ray images, software and planning views, media player files and even PowerPoint presentations.

The dentist element offers standard features that allow for future upgrades and integrations. The units are pre-configured to accept three drill drives with up to two electric motors, an ultrasonic scaler and an intra-oral camera. They also allow for five instrument positions, all with light source capability. The dentist elements are height adjustable with pneumatic brake, and both versions are equipped to add a tray (included in the CS version.)

Both INTEGO TS and INTEGO CS offer the LEDview operating light, which provides illumination of the treatment area. In addition, a network interface, an SDHC memory card slot and a USB port allow the integration of new functions as well as immediate service technician communication.

INTEGO patient chairs are ergonomically designed to provide the most comfortable experience possible for both patient and clinician, according to the company. A double articulating headrest is fully adjustable to fit patients of all shapes and sizes as well as allowing optimal visibility in a wide range of treatment situations.

For additional information on Dentsply Sirona’s INTEGO transcendental treatment centers, dental professionals are encouraged to contact their Patterson representative or visit www.sironatc.com.

About Dentsply Sirona

Dentsply Sirona asserts it is the world’s largest manufacturer of professional dental products and technologies, with a 130-year history of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures and markets a comprehensive solutions offering including dental and oral health products as well as other consumable medical devices. Visit www.dentsplysirona.com for more information about Dentsply Sirona and its products.
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Clinical case and photography courtesy of Paresh B. Patel, DDS.

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