

Implant Dentistry Update

Dr. Smith and Domingue

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What's New?

I asked a patient recently, "So what's new with you?" Her reply was "nothing new and thank God". To some extent I secretly felt a little jealous. I mean she's just sitting in my operatory chair with a "blank slate" during these rapidly changing times on all levels and she offers me, "nothing new and thank God". At least for me, I often find myself in "**Information overload**", a term popularized by Alvin Toffler in his bestselling 1970 book **Future Shock**. It refers to the difficulty a person can have understanding an issue and making decisions that can be caused by the presence of too much information. I realize that some of us were born with bigger and better operating harddrives than others, and some of us have more **RAM** (random access memory) than others. I'm pretty sure that mine is about maxed out. When Carl Breau and I heard the comedian **Rich Schieder perform at the Holiday Inn** some 20 years ago, he relented to the crowd that his brain was full-maxed out. Therefore when the plumber comes over to fix the broken toilet, Rich doesn't want to understand the mechanics of what went wrong with the toilet causing it to overflow with foul smelling liquid that would have to be steam cleaned from the shag carpet. His concern—"if I take in that information, that knowledge will displace something important like where I left my wallet, my parents names, or where I last parked my car."

In **Future Shock**, Toffler writes, "When the individual is plunged into a fast and irregularly changing situation, or a novelty-loaded context ... his predictive accuracy plummets. He can no longer make the reasonably correct assessments on which rational behavior is dependent." So he was a famous author as well as a prophet. Think about what was going on in 1970 compared to today!

"The resulting abundance of – and desire for more (and/or higher quality) – information has come to be perceived in some circles, paradoxically, as the source of as much productivity loss as gain." **Information Overload** can lead to "**information anxiety**," which is the gap between the information we understand and the information that we think that we must understand. As people consume increasing amounts of information in the form of news stories, emails, blogs, posts, Facebook statuses, Tweets, and other new sources of information, they become their own editors, gatekeepers and aggregators of information. One concern in this field is that massive amounts of information can be distracting and negatively impact productivity and decision making. Another concern is the "contamination" of useful information with information that might not be entirely accurate (Information Pollution). Research done is often done with the view that information overload is a problem that can be understood in a rational way. At a personal level, information pollution will affect the capacity of the individual to evaluate options and find adequate solutions. In the most extreme case it can lead to information overload and this in turn to anxiety, decision paralysis and stress. There also seem to be some negative effects on the learning process. Work interruptions caused by e-mail and instant messaging can also add considerably to wasted time and efficiency losses **Are your office personnel logging into Facebook, searching on the Internet during office hours, being bombarded by text messages?**

Back in the "good old days", we had pegboards, Smith-Corona typewriters (and correction fluid) amalgam, gold and a handful of composite resins that we could use. We also had **zinc phosphate, polycarboxylate, and Super EBA cements**. We had gold crowns and porcelain fused to metal crowns. All ceramic crowns were coming of age, but were very fragile. **Fast forward to 2013—holy Toledo.** Sometimes I feel like a "**lost ball in the high weeds**". So much out there that it is becoming just about impossible to stay on the forefront of it all. When I pick up a copy of **Dentistry Today** or **Dental Products Report** I'm completely blown away at the vast amount of "dental stuff" that is out there on the market waiting

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What's New? (continued)

for us to purchase and “improve our practices and the quality of treatment for our patients”.

Just within the past 10 years or so, in the literature and in dental advertisements, we're seeing much info about the following:

CTCB Scanners—standard of care or not?

CT Guided Surgery—fabricating surgical guides using CTCB technology in conjunction with specialized software programs.

Platform Switching—a concept in abutment-implant designs to prevent bone loss and maintain soft tissue around implants.

All on Four—screw-retained fixed hybrid prosthetics

Removable Prosthetics—Locator attachments (individual and bar retained)

Platlet Rich Fibrin and Platlet Rich Plasma—what's the difference and is it worth the trouble. Answer: yes

Custom abutments—using Cerec or commercial labs such as Zimmer, Inc.

Zirconium abutments vs Titanium abutments—strength issues, long term results, esthetics.

Mini implants—good idea or not? Depends..... Long term success? Case selection? Bone type dependent?

Treating Peri-implantitis—the new periodontal disease. From prevention to early intervention.

Immediate implant placement—advantages versus inherent risks.

So what's my point in all of this. Because we've been so focused in implementing implant dentistry in our practice since 1985, I have “been there and done that”, have had some nice successes and some miserable failures. I've learned my from those failures and the failures of other practitioners as well. I've seen implant designs, concepts, instrumentation, etc. come and go. I'm no longer emfatuated by the “latest greatest” simply because for the most part, it's all about “market share”. Whether it's bone grafting materials, membranes, dental implants, CT machines, and other associated adjuncts to this rapidly growing field in tooth replacement, there is a whole lot of stuff out there and there is a lot of money on the line! Back in 1985 when I got started there was the **Branemark implant** and the **Corevent** implant in the USA. Drs. Randy Malloy and Mark Welch were introducing the **ITI implant**, but were having problems getting implants and restorative parts in from Switzerland. We only did one case together on my wife's aunt. The implant is still going strong and that was done in 1985. Fast forward to today—more than 300 dental implant companies worldwide and most claim to be superior to their competition.

With regard to all of this, we're here to help you whether it comes to helping with an implant restorative case that is problematic (functional or esthetic), to offer some opinions and guidance in restorative approaches to difficult cases, to help retrieve broken screws, fractured implants, broken bars, etc. **We take the “fleas with the dog”.** And, it great having my nephew and new partner, Danny Domingue in the practice to help with all of this. His three years of training at **Brookdale Hospital** in an **Implant Dentistry Fellowship** combined with his long list of certifications including his board certification with the **American Board of Implantology** offers an even broader base in our practice for diagnosis, treatment, and problem solving. They say that two heads are better than one.....we'll see!

Thank you for all of your referrals—it has helped us to advance in this field more than you could know.

Hope that you have a great 2013.

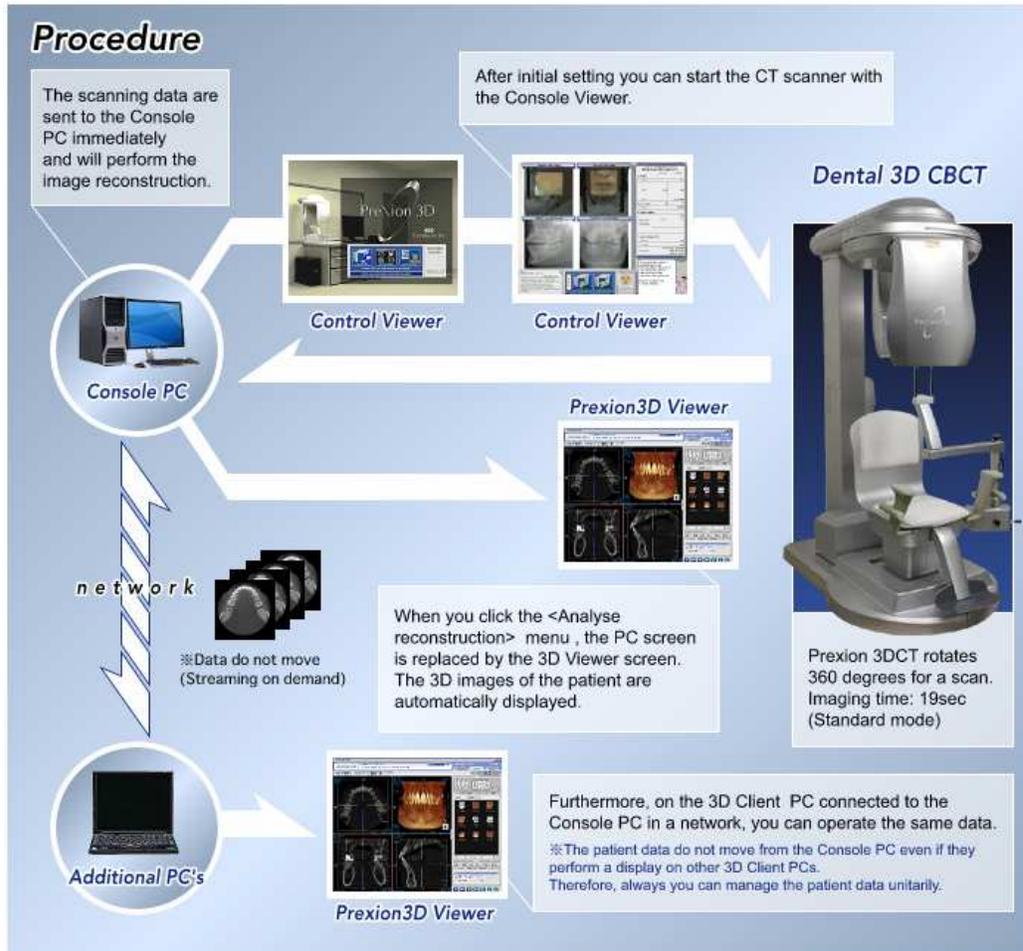
Sincerely,

PreXion CTCB Machine

PreXion 3D is a revolutionary X-ray system that provides high-resolution solutions in dental imaging. Powered by superior image reconstruction and volumetric image rendering technology, **PreXion 3D** provides sharper images with more information than the traditional dental X-ray unit. It's the ideal in-office imager for the specialist performing implants.

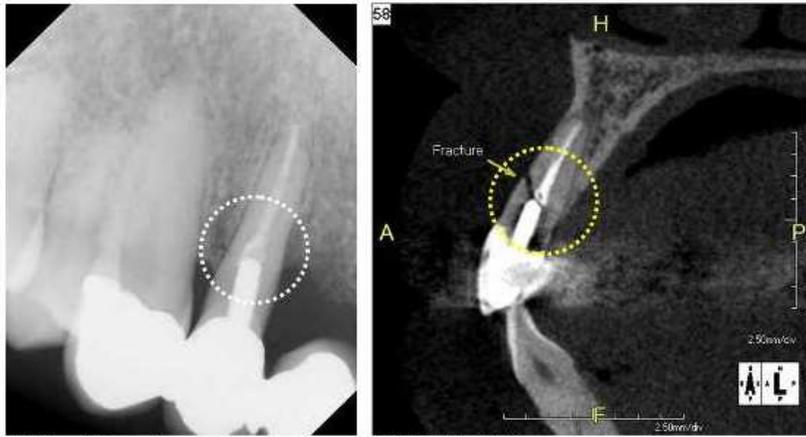
With **PreXion's clear and 1:1 scale images**, accurate measurements assure that the optimum implant is placed. Patient treatment is improved with the powerful computed tomography technology and its precise measurement tools. Accurate dental implant planning and placing, orthodontic investigation, and improved general dental imaging are some of the many true benefits PreXion 3D delivers.

In just 17 seconds, PreXion3D acquires 512 initial X-ray views which are 'reconstructed' into a 3D dataset of the patient's anatomy. Conversion to [DICOM 3](#) is built-in and compatible with all major 3rd party software and systems (NobelGuide, Simplant, ILS, I-Dent, Dolphin, Blue Sky Bio, Anamatage, and others).



Case1: Root Fracture

The regular 2D x-ray image suggests a possible issue with an endodontic treatment. However, it is not sufficient for a clear diagnosis. The sagittal image of the 3D CBCT scan reveals a root fracture.

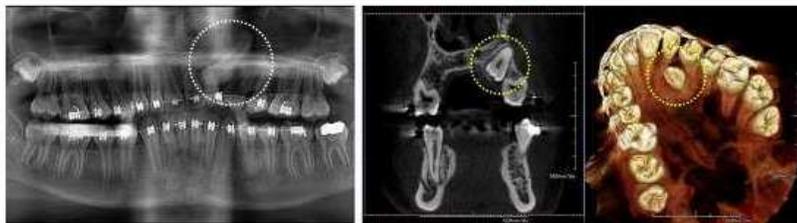


2D (Dental image)

3DMPR (Sagittal)

Case2: Maxillary impacted canine tooth

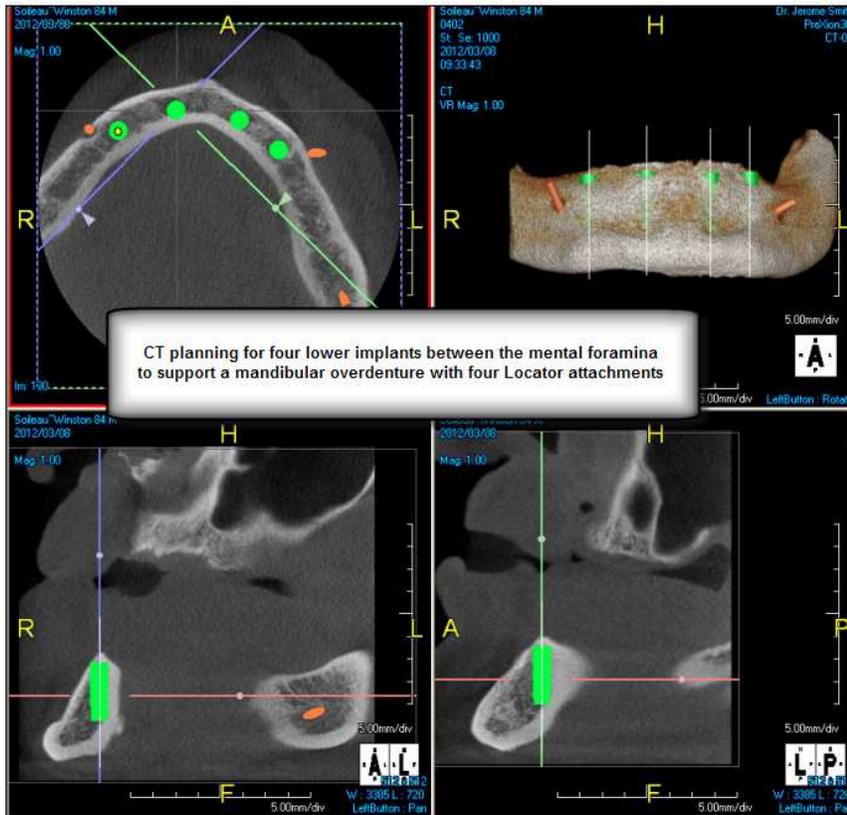
Slight shadow can be seen in the panoramic image. In the 3Dimage(MPR:Cpronal), the state of the eruption and the position of the maxillary impacted canine tooth can be accurately evaluated. Further detailed information can be obtained in the image of 3D VR.



2D (Panoramic image)

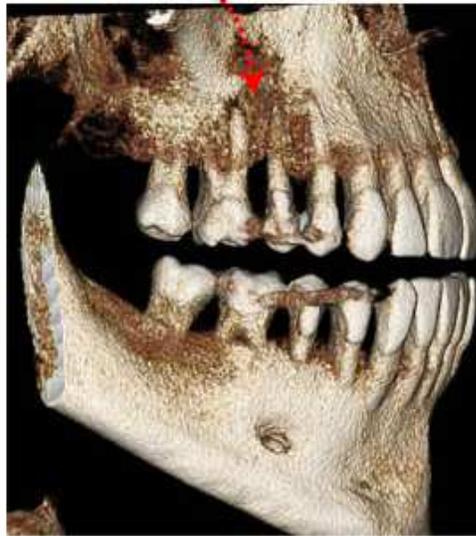
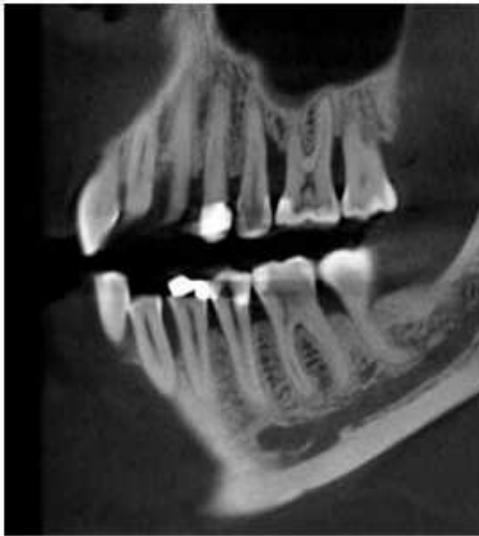
3D (MPR:Coronal)

3D VR



CT planning for four lower implants between the mental foramina to support a mandibular overdenture with four Locator attachments

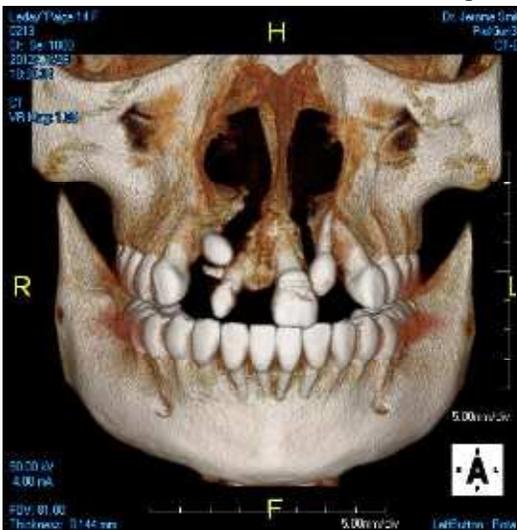
The combination use of both 3D and multi-slice cone beam CT images provides a sharper understanding of the bony defects within relation to surrounding local anatomy. In addition to helping the dentist plan for treatment options the patients can also view and become educated on any perio degenerated conditions for better acceptance of ensuing treatments.



CTCB Scan for evaluating and treatment planning a cleft palate patient

In using a CTCB scan for a particularly difficult case such for Paige, a young girl with bilateral cleft lip and palate, Dr. Russell Romero and I were able to more closely examine her existing remaining anterior teeth and also were able to indentify a lesion at the apex of tooth #8 which was not seen on her other radiographs. Dr. Clay Chandler was also helpful in this case in removing the retained deciduous teeth. She will Have a removable partial denture fabricated.

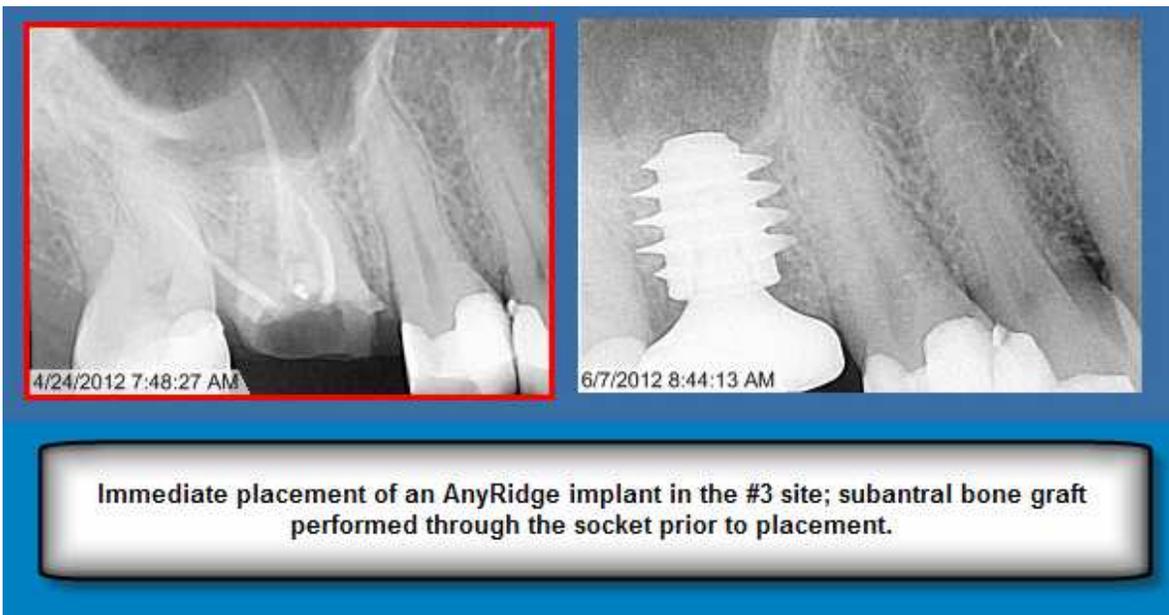
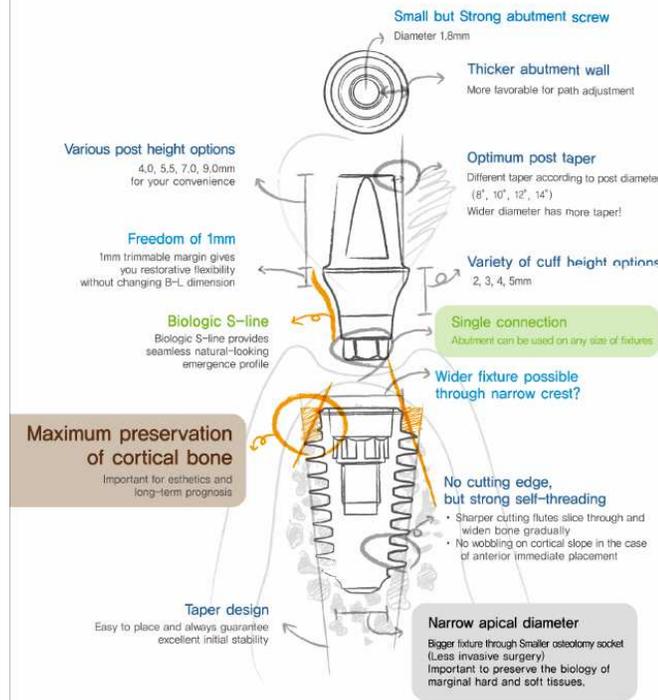
Tooth #8 will receive endodontic therapy And the root only will be retained with the Final partial replacing number 7-10.



AnyRidge Implants "A Game Changer"

A picture is worth a thousand words. The following cases help illustrate our excitement about an implant that has already changed the way we practice. Success rates in particular with immediate extractions and in sites where bone is minimal and lacking in density (e.g. maxillary first and second molar sites) have been outstanding.

Better initial stability even in compromised bone density. AnyRidge® cuts through bone and condenses it simultaneously.



Immediate placement of an AnyRidge implant in the #3 site; subantral bone graft performed through the socket prior to placement.

11/12/2009 9:16:30 AM

7/16/2012 1:49:32 PM

11/2/2012 9:11:02 AM

Zimmer Tapered Screwvent placed in 2009 after removal of # 8 due to fracture and non-restorability

In July 2012, patient was referred with a similar circumstance for tooth #9. Due to the width of the tooth and desire for extraction with immediate placement (including an abutment and a non-loaded, non-functional temporary), we elected to use a 5.5 mm diameter X 13mm AnyRidge implant.

The final drill size for this implant is a 3.3mm diameter drill while the implant itself is 5.5mm diameter. Initial stability and torque insertion values far exceed any other implant system that we have used to date.

2/7/2012 10:56:39 AM

3/12/2012 9:13:58 AM

Tooth #31 with hopeless prognosis from a restorative standpoint

Concomitant placement of 7.0mm diameter X 10mm AnyRidge implant at the time of extraction.

6/8/2012 8:35:26 AM

6/11/2012 8:47:02 AM

Hopeless prognosis for #19

Extraction and immediate placement of an AnyRidge wide diameter implant in the #19 site. Peri-implant grafting with freeze dried bone mixed with Fusion Bone Binder



9/9/2011 9:53:06 AM

Pre op PA (acute bone loss around the apex as well as the distal)



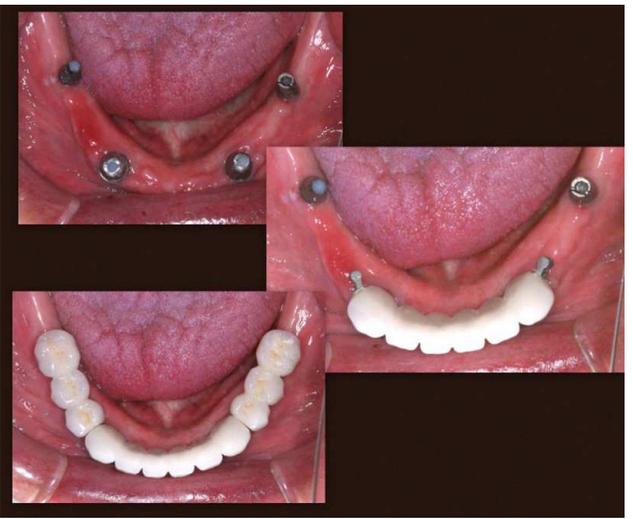
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5 months post op xray

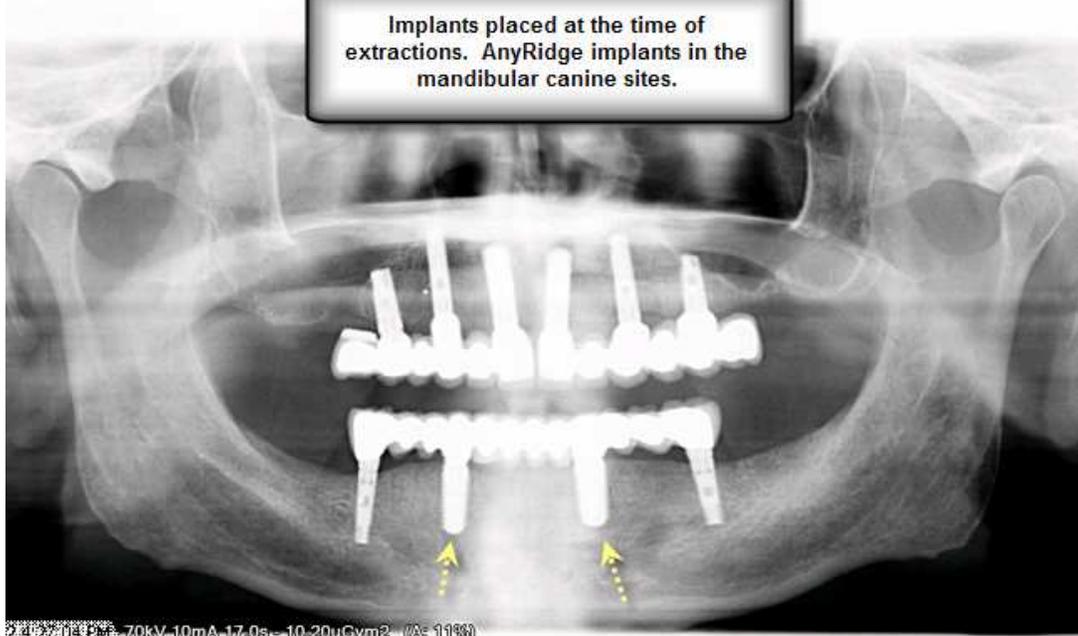


3/8/2012 9:42:30 AM

AnyRidge implant with final fixed abutment



Implants placed at the time of extractions. AnyRidge implants in the mandibular canine sites.

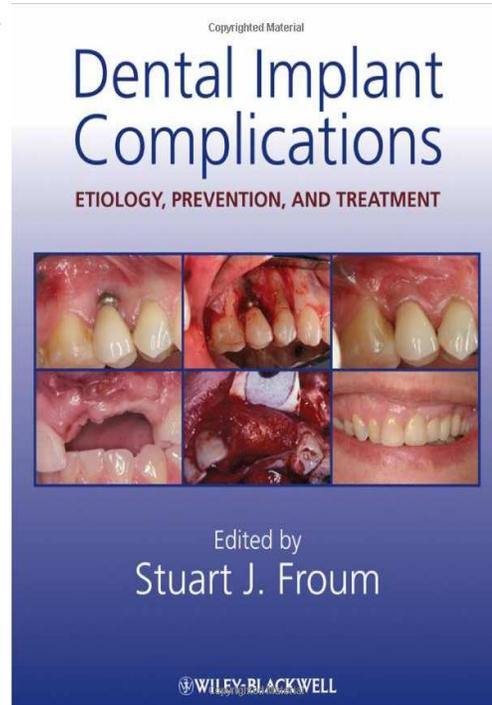


2/4/2012 3:04 PM - 70kV 10mA 17.0s - 10.20uGym2 (A: 1193)

Read any good books lately?

Dental implants have become one of the most popular and rapidly growing techniques for replacing missing teeth. While their predictability, functionality, and durability make them an attractive option for patients and clinicians alike, complications can arise at any stage from patient assessment to maintenance therapy. **Dental Implant Complications: Etiology, Prevention, and Treatment** is the first comprehensive reference of its kind designed to provide clinicians of all skill levels with practical instruction grounded in evidence-based research. Featuring cases from a variety of dental specialties, the book covers the most commonly occurring implant complications as well as the unique.

Dental Implant Complications is organized sequentially, guiding the reader through complications associated with the diagnosis, treatment planning, placement, restoration, and maintenance of implants at any stage. Complications associated with various bone augmentation and sinus lift procedures are also discussed in detail with emphasis on their etiology and prevention. Each chapter utilizes a highly illustrated and user-friendly format to showcase key pedagogical features, including a list of “take home tips” summarizing the fundamental points of each chapter.

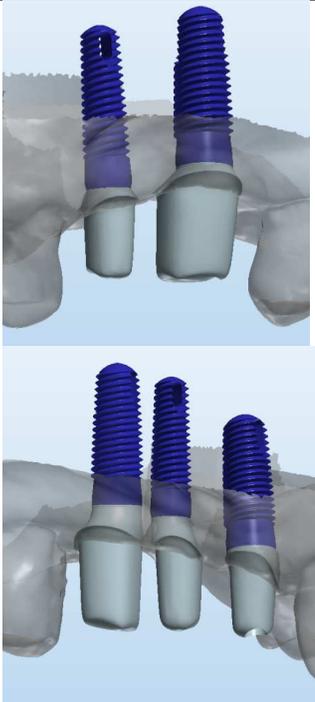


Custom Abutments

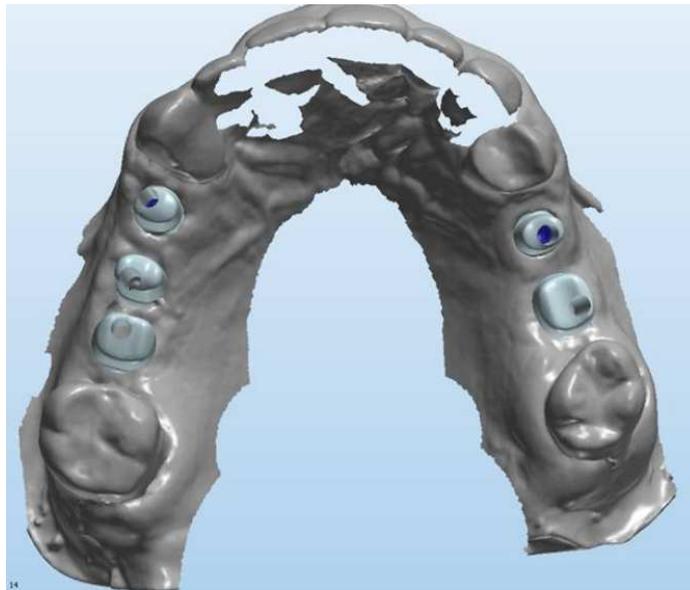
For obtaining optimal tissue emergence profiles, accurate margin placement as well as good "path of draw" for fixed implant supported bridgework.



Case of congenitally missing maxillary lateral incisors replaced by two unit cantilevered bridges. Final treatment involved placement of two 4.7mm diameter internally hexed implants. Restored with custom CAD/CAM Zimmer patient specific zirconium abutments and Emax crowns over the lateral incisors as well as the maxillary canines.



Digital images are emailed from Zimmer Labs for approval prior to the milling process such as in This case below:



Example of Zimmer PSA Zirconium abutment for implant in the #9 Site.



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Dental Implant Website

I have constructed "all by myself" a website so that I could compile a lot of info "in the cloud". We'll all be hearing more about working "in the cloud" in the future, particularly due to Google's aggressive style and progressive innovations. In a nutshell, it simply means having a place to keep all of your data offsite so that it can be accessed from any PC, smartphone, iPad, etc. from anywhere. To access this site, simply type in the link below in your browser:

[Http://drsmithsite.weebly.com](http://drsmithsite.weebly.com)

This site contains the following:

Numerous articles in .pdf format related to dental implantology, soft tissue manipulation, bone grafting, case type examples in Power Point (can be downloaded for patient education purposes), video animations (for patient education), case studies on Periogenix that were done in our office, and much more

All proceeds go to our clinic in **Atoyac de Alvarez, Mexico (Clinica Betel, A.C.)** For more information, on the Clinic in Mexico, please go to: www.latinworldministries.com



Donate online



Donations

We are a non-profit organization dedicated to aiding children who are less fortunate. We gladly accept and appreciate any and all donations.

Donations are accepted via PayPal "online"



or via regular mail to:

Latin World Ministries
2 Whitney Circle
Texarkana, Texas 75503

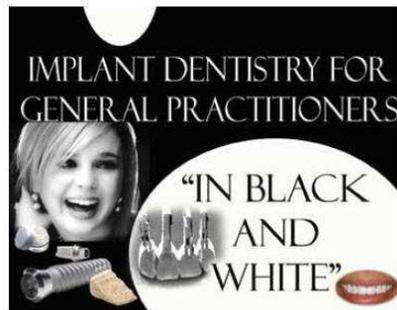
As part of an ongoing series, our office has a 2 day course entitled, "Implant Dentistry in Black and White". Which has been sponsored by Zimmer Dental since

2007. This course is



given two times a year

in our office. On



Friday and Saturday

mornings, we do 5

surgeries on each day

followed by lecture in

the afternoons. We

have had over 100

dentists from around the

country attend this course and believe it to be a very informative and "down to earth"

continuum for dentists involved with implant treatment on any level. If you are inter-

ested in attending any of these in the future, information is included in the enclosed

brochure. Upcoming Courses are scheduled for:

March 22-23, 2013 and November 8-9, 2013

