



FEBRUARY 2015 NEWSLETTER

UPCOMING CE— UNDERSTANDING AND TREATING PERI-IMPLANT DISEASE

We invite you and your team to join us for our upcoming program investigating peri-implant disease. We will discuss diagnosis of peri-implant disease, as well as treatment options available both in the general and periodontal offices. Our discussion will incorporate elements of comparative anatomy between dental implants and natural teeth as a foundation for this investigation. While there are many similarities to traditional chronic periodontitis, peri-implant disease presents with several fundamental differences which may impact the decision of how we discuss with our patients and properly render treatment.

Following this course, we hope that you will have a clear understanding of the pathophysiology of peri-implant disease, its cause and how to easily identify and, in many cases, treat this in your practice.

This course is offered at no cost to any member of your team and participants will receive 2.0 hours of C.E. credit

March 11th, 5:45 PM

La Scala

4199 West Dublin Granville Road

Dublin, Ohio

Dinner will be Provided

To RSVP, please contact our office by March 5:

(614) 451-1122

Or online at: www.greatercolumbusperio.com/ce.html

CONE BEAM CT—3-D IMAGING FOR CONTEMPORARY DENTAL DIAGNOSTICS AND TREATMENT PLANNING

Accurate and reliable imaging is an essential element to diagnosing and treatment planning the myriad of pathologic conditions we encounter on a daily basis in dentistry. While still the standard of care for many diagnostic procedures, peri-apical and panoramic radiographs are still limited by a certain level of distortion inherent to the image (an average of 12% for a PAN and 5% for a PA) as well as a 2-D image attempting to visualize a 3-D structure.

Cone Beam CT (CBCT) provides the clinician the ability to view a high resolution 3-D image of the head and neck anatomy without major distortion prevalent in traditional imaging techniques. Computed tomography (CT) imaging, also referred to as a computed axial tomography (CAT) scan, involves the use of rotating x-ray equipment, combined with a digital computer, to obtain images of the body. Cone beam CT provides a high resolution image with an exposure of 90-160 μ sv, which is about the equivalent of flying from Columbus to Honolulu, Hawaii.

BENEFITS OF CONE BEAM CT

Implant Placement: Because there is no distortion of the image it allows for improved selection of implant size and type, as well as correct angle and depth of the placement. Anatomical structures, such as the maxillary sinus and inferior alveolar nerve canals, may be seen in their entirety without superimposition and with superior magnification, sharpness and significantly reduced distortion. Utilizing specially designed software, the clinician can simulate placement of dental implants in the computer to ensure optimal positioning and bone volume. Virtual planning of implant placement may also be utilized to fabricate surgical guides which allow for seamless transition of virtual implant placement and positioning in the computer to actual surgical placement of implants in the jaw.

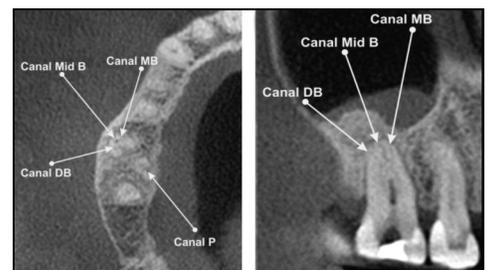
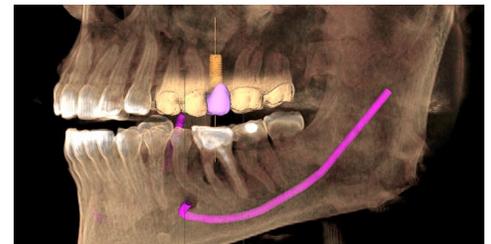
Extractions: Third molars (wisdom teeth) especially are located close to the alveolar nerve (mandible) and maxillary sinuses. Knowing 3-dimensionally the relationship between the tooth and these important anatomical structures reduces surprises and enables the doctor to plan better and provide a more complete informed consent.

Impactions/Supernumerary Teeth: Identifying and visualizing impacted and supernumerary teeth not only aids in exposure or in planning extraction, but allows the orthodontist to plan mechanics properly to avoid damage to adjacent teeth. With conventional 2-D radiography these teeth are too often obstructed and superimposed making their exact location difficult or impossible to determine.

Endodontic Treatment: Cone beam images are very helpful in finding an elusive extra canal, identifying a mesial/distal fracture line or evaluating root canal treatment and finding an unusual root canal anatomical feature. Exact measurement of the canal length, shape, and number of canals can be made prior to starting the root canal greatly simplifying treatment.

Sinus/Airway Studies: Cone beam scans allow for visualization and volumetric measurement of the entire airway from the nasal and oral entrances to the laryngeal spaces. All the sinuses are able to be evaluated in all 3 planes of space.

TMJ-D: 3-D cone beam is ideal for evaluation of the bony changes within the TM joints. With these images, it is now possible to easily evaluate differences in condylar anatomy in all dimensions, as well as position of the condyles in the fossa.



Brito-Júnior M et al, 2013

If you would like more information or to refer your patients for a Cone Beam CT scan, please contact us at 614-451-1122