AUGUST 2019

FOREVER SMILES
BRACKET CHATTER

Official Newsletter from Dr. Yan Razdolsky Specialist in Orthodontics for Children & Adults

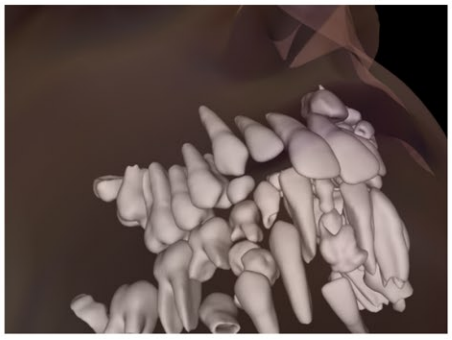
Using 3D Cone Beam To Discover New Pathologies

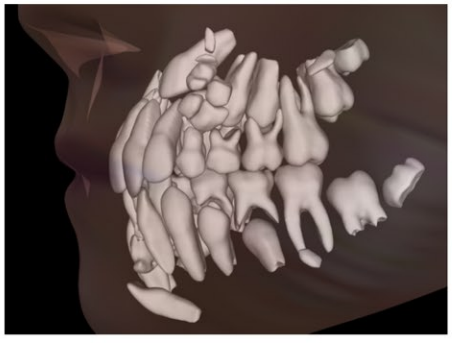
In our Harmony in Orthodontics article at right, Dr. Razdolsky talked of how 3D cone beam improves diagnostic and treatment in orthodontics, but did you know this type of dental imaging can also save lives? That's right… 3D CBCT imaging when combined with computer aided diagnostics or (CAD) systems-based technologies can not only help dental radiologists see and diagnose various oral pathogens from dental caries (tooth decay) to cancer, they can also help prevent a stroke or hip fracture. Through expanding the scope of panoramic exams, 3D CBCT becomes a relevant screening method for osteoporosis, other cancers and even Carotid artery calcification!

Dr. Razdolsky uses CBCT in orthodontics for evaluation of bone structure and tooth orientation, as well as surgical planning for impacted teeth and even diagnosing temporomandibular joint disorder (TMJ). But it is in locating new regions of interest (ROI), or spotting suspicious signs and classifying the findings, especially when we widen the image scope to include the head and neck, we can see even greater benefit. It is then that we can allow for detection of more pathologies in one image, thereby increasing the advantage for dentists and patients.

"It's true that we can see more than ever before, especially someone who is trained to look for such findings," said Dr. Razdolsky. "For example, maxillary sinusitis is often caused by a dental pathology when effected roots are too close to the maxillary sinus. An experienced dentist or orthodontist will look for this and can adjust treatment or call in other specialists as needed."

In one case, Dr. Razdolsky discovered a patient with multiple compound odontomas, or tumors. Although composed of normal dental tissue, these developmental anomalies grow in an irregular way and other than causing orthodontic pathologies, have also been linked to Gardner's syndrome. Testing to rule out this syndrome is highly recommended as these patients can develop colorectal polyps and have an increased risk of developing colon cancer.





Another medical condition which can be evident to the trained eye is osteoporosis, a medical condition characterized by the loss of bone mineral density which increases bone fragility. This is particularly interesting as the tests to diagnose osteoporosis require special equipment and that can limit the availability of tests for the majority of patients. Since it has been proven that measuring bone mineral

(cont'd on back)

YAN RAZDOLSKY D.D.S., L.T.D.

ORTHODONTIST

FOREVER SMILES

Harmony In Orthodontics

Doctor and Anna Razdolsky attended the College Council – ABO Board Joint Meeting in Nashville, July 12 through the 15. The four-day symposium afforded board-certified orthodontists like Dr. Razdolsky the opportunity to hear lectures on a number of fascinating topics.

Titled, *Harmony in Orthodontics* the event focused on the art of creating an esthetic combination of facial structures similar to the way musical harmony involves an esthetic blend of tones. Nashville seemed the ideal venue to discuss harmony as the city is surrounded by music. In all, this was a fully packed program with a lot to offer the analytical mind of Dr. Razdolsky.

In one presentation Dr. Razdolsky and guests were reminded how 3D imaging produces the most accurate representation possible to a patient's anatomy and the anatomical pathway in how to best treat that unique patient through the use of "markers."

"Cone beam imaging significantly improves the diagnostic value and treatment of orthodontic patients," said Dr. Razdolsky. "These technologies have vastly improved our ability to develop treatment options,

(cont'd on back)

(cont'd from front)

Harmony In Orthodontics

monitor changes over time and better predict outcomes. We have detailed images with anatomical landmarks which provide the most accurate representation possible of not only where the patient is in development, but what and how we need to provide treatment to get them where they should be," he added.

In another program, Dr. Razdolsky said the lecturer discussed with attendees how patient scheduling and managing wire sequencing can help accelerate treatment. He said the sharing and discussion of these types of techniques and the accessibility of interaction with world-class lecturers along with fellowship with other orthodontists make events like this onto somewhat of an international study club. It is this association, with the finest orthodontists in the world that ensures that together they are all upping their game.

"Often parents do not understand something as simple as why we schedule patients earlier, later and often at different intervals than perhaps their siblings or their children's friends," said Dr. Razdolsky. "We have learned through the sharing of case studies like this that depending on patient and course of treatment, sometimes something such as switching out the wires used in orthodontic treatment through a different prescribed way can help cause movement more rapidly and aid in better or faster outcome."

Indeed, programs like this can not only improve results, but can significantly elevate comfort for the patient. These seminars do truly afford our Forever Smiles patients benefits from a consortium of world-renown and board-certified experts in the business of creating beautiful smiles.

(cont'd from front)

Using 3D Cone Beam To Discover New Pathologies

density in the area of the mandible can also provide accurate results in detection, panoramic dental x-rays are a much more reasonable options for screening.

"While measuring bone mineral density may not be easy for dental radiologists, the automation of CAD systems does help a lot," said Dr. Razdolsky. "This puts dentists in a unique position to help older patients through screening and sharing that information back to the primary care physician for follow up."

Dr. Razdolsky said the same CAD systems can be programmed to look for carotid artery calcification screening which can be spotted in dental panoramic x-ray images.

"Carotid artery calcification is a symptomless disease with potentially devastating consequences," said Dr. Razdolsky. "A simple modification to an otherwise routine scan could save a life and just another example of how oral health can be tied to overall systemic health. As physicians, we are all in this together."

In Closing

Thank you for being part of our Forever Smiles Family. If you have any questions about this newsletter or anything else, please do not hesitate to contact us at our Buffalo Grove office: 847-215-7554 or via email: yan@razdolsky.com. We look forward to providing you and our community with even more reasons to smile!

Truly,

Yan Razdolsky, DDS, BSD, LTD
Orthodontist for Children and Adults

www.razdolsky.com

Member American Association of Orthodontists

DIPLOMATE AMERICAN BOARD OF ORTHODONTICS