

Fall 2007

Breaking the Two Dimensional Barrier with 3-D Cone-beam CT Imaging

When C. Edmund Kells, D.D.S. took the first dental x-ray on Canal Street in 1895, he likely had no idea of the lasting impact of his innovation. While of benefit, however, it's amazing that dentistry has relied on two dimensional radiographic imaging for over 110 years, especially when the countless other advances in technology and materials are considered. Cone-beam technology has existed since the 1980's but only recently has it become a viable diagnostic tool for dentistry. In the year 2000, the FDA approved the first cone-beam volumetric tomography (CBVT) unit for dental use in the United States. As of 2007, there are at least 12 cone-beam systems specifically designed for dental use.

Diagnostic information directly influences clinical decisions. Accurate data leads to better treatment planning decisions and potentially more predictable outcomes. CBVT is an emerging technology that can offer the clinician clinically relevant information that cannot be gathered from conventional radiography as well as computed tomography (CT). CBVT captures a cylindrical volume of data in one acquisition and thus offers **distinct advantages over conventional medical CT**. These advantages include **increased accuracy, high resolution, scan-time reduction and radiation dose reduction**. Also, the **ability to assess an area in 3 dimensions eliminates the superimposition** that is inherent in conventional radiographic imaging.

Cone-beam technology currently has numerous applications in the dental field such as **implant treatment planning, surgical assessment of pathosis, TM joint assessment, orthodontic evaluation of growth and development**, and more. In endodontics, specific applications of CBVT are being identified as the technology becomes more prevalent. CBVT has great potential to become **a valuable tool in the modern endodontic practice**. CBVT technology aids in the diagnosis of:

- endodontic pathosis in canal morphology
- assessing root and alveolar fractures
- analysis of resorptive internal and external lesions
- identification of pathosis of non-endodontic origin
- presurgical assessment of root-end surgery

As CBVT technology evolves, clinicians will be able to adopt 3-D imaging into their diagnostic repertoire. Because accurate diagnostic information leads to better clinical outcomes, CBVT might prove to be an invaluable tool in the modern endodontic practice.

New ADA Guidelines for Anesthesia in Dentistry

Effective October 1st, the ADA House of Delegates voted to adopt new guidelines for the use and teaching of anesthesia in dentistry. A summary of the guidelines is as follows:

1. Minimal sedation now encompasses all of anxiolysis and most of conscious sedation.
2. Moderate sedation is a new definition that is closer to deep sedation.
3. Qualified dentists are allowed to increment up to 1.5x the MRD of a single oral sedative with or without nitrous and still be considered providing minimal sedation.
4. Minimal sedation monitoring: qualified dentist may direct an appropriately trained individual to monitor the minimally sedated patient.
5. Moderate sedation monitoring: qualified dentist must remain with the patient until active treatment is completed and patient is in recovery.
6. Minimal sedation: didactic training = 16 hours.

7. Moderate sedation: didactic training = 24 hours plus 10 clinical patient cases (including 3 live patient experiences) plus ACLS is required.
8. Grandfather provision for training.

The implementation of the new guidelines was well-received news, as we have found conscious sedation to be a wonderful tool to help those patients who would otherwise be unable to tolerate treatment without IV sedation.

If you are considering implementing this service in your practice you may wish to attend the Dental Organization for Conscious Sedation (DOCS) course "Oral Sedation Dentistry" that will be held in New Orleans from 1/25/2008 – 1/27/2008. For more information, please visit www.docseducation.com.

25,993 Miles Later...A Year of CE in Review

"It's not the age, it's the mileage." ~*Indiana Jones*

1/13-1/16	Loma Linda	Loma Linda
1/26	CDEBR - Henry Gremillion	Baton Rouge
2/7-2/11	DOCS	Dallas
3/9-3/10	Zimmer Implants	Lafayette
3/14-3/17	Loma Linda Implant Study Club	Loma Linda
3/23-3/25	Schuster Performance Coach	Scottsdale
4/11-4/14	Loma Linda Implant Study Club	Loma Linda
5/9-5/12	Loma Linda Implant Study Club	Loma Linda
6/6-6/9	Loma Linda Implant Study Club	Loma Linda
6/22-6/23	OGRAM Advanced Course	Dallas
6/27-7/1	TDO Update	Asheville, NC
7/11-7/14	Loma Linda Implant Study Club	Loma Linda
7/21	Schuster Performance Coach	Scottsdale
8/8-8/11	Loma Linda Implant Study Club	Loma Linda
8/22-8/26	DOCS	Nashville
9/12-9/15	Loma Linda Implant Study Club	Loma Linda
10/6/2007	Schuster Performance Coach	Scottsdale
10/10-10/13	Loma Linda Implant Study Club	Loma Linda
10/26	Schuster Center Team Refresher Course	Houmas House
11/6-11/11	AAID	Las Vegas
11/14	Zimmer Institute Bone and Tissue Grafting	New Orleans
11/14-11/17	Loma Linda Implant Study Club	Loma Linda
12/5- 12/8	Loma Linda Implant Study Club	Loma Linda

This Thanksgiving, I hope you have the opportunity to spend quality time with your favorite friends and family. Please know that I'm very thankful for your trust as well as your friendship. We look forward to assisting you for a long time to come.

Wishing you a heartwarming and peaceful Thanksgiving, with much gratitude,

Catherine