New study notes significant radiation dose reductions from i-CAT FLX

A recently published study regarding CBCT scans and radiation dose by Drs. John Ludlow and Cameron Walker reports encouraging news for i-CAT FLX cone-beam 3-D imaging. The study, published in December in the American Journal of Orthodontics and Dentofacial Orthopedics, assessed effective doses of radiation for adults and children, resulting from various combinations of field-of-view size and field location in Imaging Sciences’ i-CAT FLX. The resulting information can help dental practitioners to make prudent decisions about low dose imaging for the best interests of their patients and their practices.

Ludlow, a distinguished researcher in imaging technology and radiation dose, noted that these types of studies are important because not only do they allow clinicians to compare the relative risk of different examinations, techniques and equipment but, “Together with information on image quality and diagnostic utility, practitioners can make evidence-based decisions on when to prescribe radiographic imaging and what technologies and techniques to use in acquiring diagnostic images.”

The data from the study was obtained using technology to replicate radiation dose on humans in accordance with recommendations from The International Commission on Radiological Protection (ICRP) on calculation of effective dose. There is a wide range in radiation doses of CBCT units. Ludlow’s study noted, “Whereas most CBCT examinations have been reported to impart a much lower dose, CBCT units from different manufacturers vary in their doses by as much as 10-fold for an equivalent field of view (FOV).” The tests demonstrated that i-CAT FLX QuickScan+ protocols resulted in significantly lower doses than standard protocols for the child (P = 0.0167) and adult (P = 0.0055) phosphons. It continued: “The QuickScan+ protocol provided a substantial 87 percent reduction in dose compared with the standard exposure protocols in both child and adult phantoms. Thus, when QuickScan+ protocols can be used, they will provide a clinically meaningful reduction in dose.”

Ludlow noted the study indicated, “The QuickScan+ image volume provides 3-D information with minimal geometric distortion that is unavailable in any 2-D image and at a comparable dose.” When deciding on which 3-D cone-beam imaging system to implement in their practices, clinicians can use the information from this study to make 3-D imaging choices for the best interests of the patient. The benefits of cone-beam 3-D imaging are becoming widely recognized for implants, oral surgery, orthodontics and other specialties because of the additional vital information on bone structure and tooth orientation that scans provide.

From implants to surgical guides and restorations, i-CAT integrates with orthodontic systems, CAD/CAM programs, imaging software and practice management programs. i-CATFLX is also equipped with the award-winning TxSTUDIO software.

Armed with these latest results from the Ludlow study, why not have all of the benefits of CBCT imaging and at a lower dose? Visit the i-CAT booth, No 1219, and see how i-CAT FLX cone-beam 3-D imaging can contribute to more effective diagnosis and treatment. While you’re there, enter for your chance to win $50,000 off of an i-CAT FLX!

To access the abstract for the research, visit www.ajodo.org/article/S0889-5406%2813%2900774-9/abstract?source=aemf

Here in Chicago
Check out the i-CAT FLX cone-beam 3-D imaging system. Learn more about it at booth No. 1219.

Reference

Hu-Friedy, Electro Medical Systems form strategic alliance

Hu-Friedy, a global leader in the manufacturing of dental instruments and products, and Switzerland-based Electro Medical Systems (EMS) announced Thursday at the Midwinter meeting a strategic alliance to deliver the most clinically advanced prophylaxis protocol to the U.S. and Canadian markets by leveraging Hu-Friedy’s heritage in high-quality hand instrumentation, coupled with EMS offerings in piezo power scaling and air polishing.

With this new alliance, Hu-Friedy is now the exclusive U.S. and Canadian distributor of EMS Piezos™ power-scaling technology, as well as AIR-FLOW® air polishing products. Combining these technologies with Hu-Friedy’s extensive line of hand scaling instruments offers clinicians access to a comprehensive prophylaxis treatment method, backed by Hu-Friedy service and support.

Here in Chicago
For more information, stop by the Hu-Friedy booth, No. 5405. Products that are currently available can be found at www.hu-friedy.com/HFEMS.