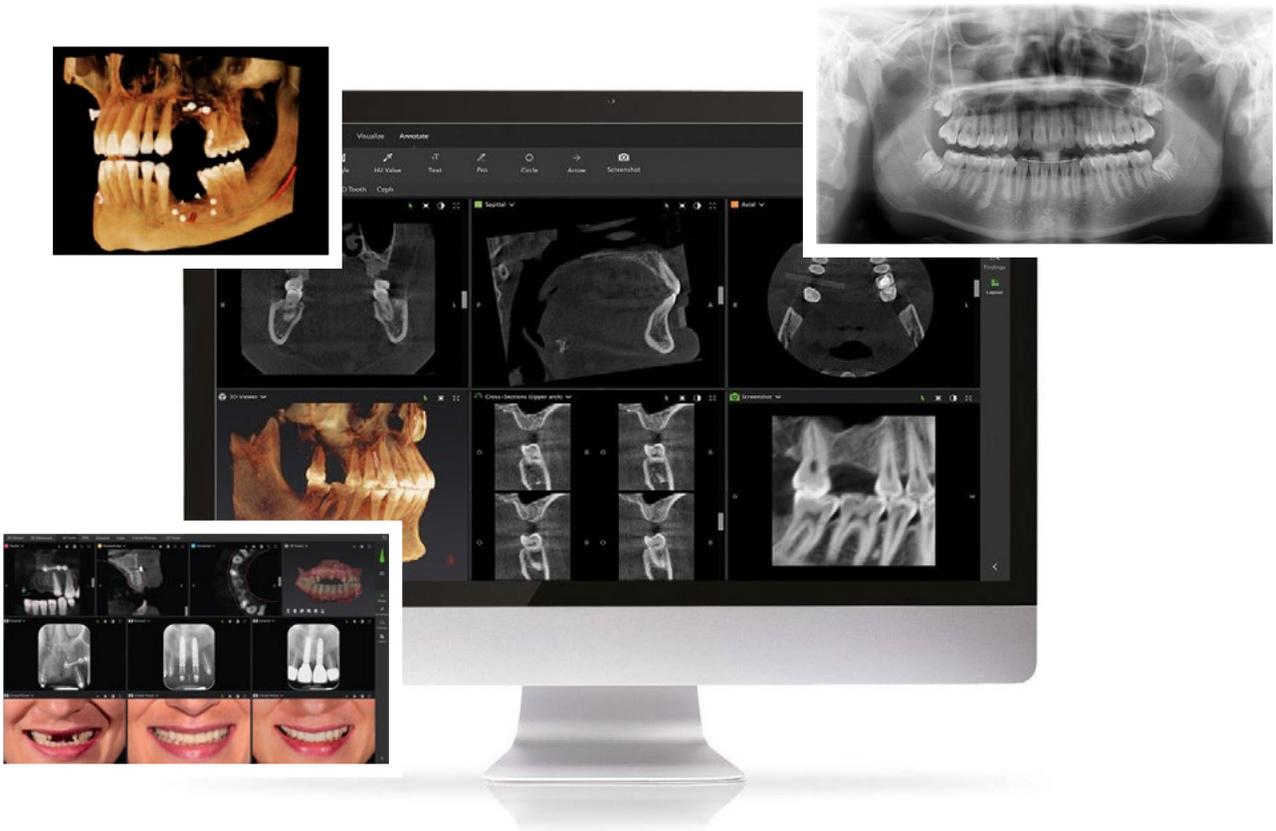


Dental **PRODUCT
SHOPPER**

PICTURING THE FUTURE OF DENTISTRY

Why the time for 3D imaging in your practice is now



The Case for CBCT in General Practice

As dental 3D imaging units become faster, smaller, and more sophisticated, the use of CBCT scans is becoming an expectation rather than a luxury.

No doubt, you've seen the images: perfect 3D renderings of skeletal grins, axial views like castle arches, slices of the mandible and maxilla to isolate a single tooth. Maybe you've thought, "Looks great, but CBCT seems like overkill for my practice." Perhaps it's time to think again. The current generation of CBCT scanners offers opportunities to boost diagnostic accuracy and treatment options for all practices, from general dentistry to specialized oral surgery, and to engage patients with treatment plans and improve acceptance.

Akshay Vij, BDS, ACT, FAGD, Specialty Care Unit Director of Esthetic & Digital Dentistry at the Missouri School of Dentistry & Oral Health in St. Louis, MO, believes the time for CBCT in general practice has already come. "Any cone beam, I think, is vital, in today's dentistry and healthcare," he says. "It provides a lower-radiation alternative to medical CT, and it plays a crucial



role in our diagnostics, treatment planning, patient education, and student education."

How It Works

Today's CBCT has come a long way from its traditional roots. In conventional CT, a flat, fan-shaped x-ray beam is projected through the area of interest to a linear array of detectors, producing the recognizable "slice." The beam and the detector array must complete several rotations around the patient, capturing slightly overlapping slices, until the whole area has been scanned. In CBCT, a cone-shaped beam is projected toward a panel detector, allowing the entire area to be imaged in one rotation. In both systems, imaging software then reconstructs the data to produce the desired views. While CT is fast, CBCT is faster, and exposes the patient to less radiation.

Why Use CBCT?

So what does this translate to in practice? At its most basic, CBCT can help reduce the surprise factor for even apparently straightforward treatment planning by

SOLUTIONS THAT TRANSFORM THE PRACTICE

Building on over 200 years of dental expertise, DEXIS imaging solutions transform practices and patient smiles. With an ever-expanding portfolio of award-winning digital solutions, DEXIS imaging innovations encompass breakthrough technologies in CBCT, intraoral scanning, implant planning, handheld x-ray, and navigated surgery. From the groundbreaking i-CAT™ and handheld NOMAD™ x-ray system to the smart DEXIS Titanium intraoral sensors, see why over 150,000 offices worldwide trust DEXIS imaging. Rely on DEXIS imaging to simplify your digital practice roadmap and support your success with industry-leading expertise.



Akshay Vij,
BDS, ACT,
FAGD

"We involve a cone beam scan for better diagnosis in pretty much every field of dentistry."



showing the location and relationship of anatomic structures in detail. Bone loss with periodontal disease can be precisely assessed in three dimensions to help determine the best treatment approach. CBCT can also improve the diagnosis of hard-to-see problems, such as fractures, and eliminate some specialist evaluation referrals, enabling faster, improved, more comprehensive patient care.

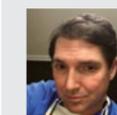
"We involve a cone beam scan for better diagnosis in every field of dentistry, whether it's implant dentistry, prosthodontics, oral surgery or oral pathology, or endodontics," says Dr. Vij. For many procedures in dentistry, he adds, CBCT is becoming the standard of practice.

CBCT also expands the range of services your practice can offer. The ability to accurately visualize all roots, bone quality, and surrounding teeth from any angle makes endodontics and implant dentistry not only much more predictable from a performance standpoint, but also much more "real" to patients. With today's software and technology, CBCT can help you

ALLAYING RADIATION CONCERNS

Today's CBCT systems use low-power x-ray tubes and allow adjustments to resolution as well as field of view to optimize images at ALARA doses. And the images produced provide a wealth of information without the potential for superimposition, distortion, or magnification that can affect 2D radiographs. The i-CAT and OP 3D both provide enhanced low-dose imaging options for the user.

WHAT DO PATIENTS THINK OF CBCT?



"Most are impressed by the technology a single private office can now utilize without traveling to a larger metro area." Emery M. Cole, DMD, FAGD, Sumiton, AL



"Patients are impressed with the images that we can take. They like being part of the team when I explain what is happening in different parts of their nasal or oral airways." Dana Blalock, DDS, Charleston, SC



"We have a plaque on the wall explaining what an incredible benefit it is for patients to have access to this cutting-edge technology. It explains how CBCT makes patient care safer and more efficient. Patients appreciate that we can offer them this level of diagnostic care in our office and not have to send them somewhere else." Kaveh Ghaboussi, DMD, Madison, WI

show patients their current dentition in 3D, and then what the results of treatment will be. And with the largest fields of view, specialized services such as airway analysis and sleep dentistry become possible.

Where to Start

Of course, a CBCT system is an investment that needs to be carefully planned with your practice's goals in mind. It's also critical to evaluate the support and training offered, as well as compatibility with your other imaging systems and software. "A standalone system kind of gets neglected," Dr. Vij cautions. "And then patient records are incomplete. It's important to look into how any unit fits into your ecosystem of existing software or into disparate software programs that work well together."

OP 3D & i-CAT: Meeting CBCT Needs for All Practices

With the ORTHOPANTOMOGRAPH™ OP 3D x-ray imaging system and the i-CAT FLX V-Series Cone-Beam Imaging System, DEXIS imaging is ready to help you take your practice to the next level.



Are you ready for a new digital radiography system, but not sure you need 3D capabilities? Or considering expanding into orthodontics or sleep or implant dentistry? Whatever your imaging needs—current and future—DEXIS imaging has you covered.

OP 3D: Growing With Your Practice

For Emery Cole, DMD, FAGD, owner of Sumiton Dental in Sumiton, AL, the choice to bring CBCT into his practice was a logical one. "I place implants and osseous grafts and do a lot of endo," he explains. "My OP 3D is our workhorse panoramic system as well as an extraoral PA device for patients who cannot tolerate intraoral PA x-rays because of conditions like trismus or swelling."

The OP 3D has 3 configurations: panoramic, 3D, and cephalometric. Its panoramic configuration captures

standard, pediatric, segmented, bitewing, and lateral TMJ views in only 9 seconds to reduce radiation dose and movement artifacts. The built-in ORTHOfocus feature automatically obtains the optimum image layer every time for consistent, highly diagnostic images.

Upgrading to 3D requires no extra footprint, but vastly expands its range. With 36 field of view (FOV) sizes and 4 resolution settings, the OP 3D can be used for everything from single-tooth endodontics and implant surgery to sinus analysis and TMJ diagnostics. Choosing the optimal FOV is as simple as clicking on a computer screen.

An Integral Tool

Kaveh Ghaboussi, DMD, owner of Madison Smile Solutions in Madison, WI, built CBCT into his practice from the beginning. "We designed our new office with CBCT in mind," he says. "We use our DEXIS imaging OP 3D many times every day, not only for CBCT, but also for panoramic x-rays and cephs—we do quite a bit of orthodontics. Any time we are planning an implant surgery or reconstruction, we definitely use the CBCT because it makes planning a better, safer, more efficient process."

With the addition of a dedicated x-ray source, the OP 3D is ready for cephalometric imaging of both pediatric and adult patients. And its patented design minimizes the need to adjust the height between scans.

Tried and True

Dana Blalock, DDS, owner of Sleep Better SC in Charleston, SC, chose the OP 3D because she already knew what it could do. "I had previously purchased and used the OP 3D in my restorative dental practice, and I knew I wanted to have it again in my dental sleep medicine practice," she says. "I am able to share my images with ENT colleagues, which improves the treatment I provide."

The OP 3D makes acquisition of any image an intuitive process with a graphical user interface viewed on a laptop or desktop computer. Simple touch-sensitive controls make patient positioning a snap, and the QUICKcompose feature automatically previews scans for rapid evaluation.

i-CAT: Raising the Bar

If your practice is already dedicated to services such as implants, oral surgery, orthodontics, or TMJ disease, the i-CAT was designed for it. With its low-dose QuickScan options, the i-CAT can take complete 3D images in less than 5 seconds, at a radiation dose comparable to that of a 2D panoramic image. It can also take 2D panoramic images without the need for an additional sensor.

The difference from traditional 2D imaging is immediately apparent. Dr. Akshay Vij uses the i-CAT to demonstrate the value of CBCT to students in the clinical setting. "They have a patient that has a need for 3D imaging—endodontics, implant dentistry, perio, whatever it may be," he explains. "So we take the cone beam, and that's a learning opportunity for the students to analyze the patient along with the faculty in 3D. That's a very eye-opening moment."

The i-CAT FLX V-Series offers three maximum fields of view: V8, V10, and V17, and the option within each to scale or collimate the scan height to capture only the area of interest per the patient's immediate need. And, in addition to having integral flexible 3D planning and treatment tools, its open platform integrates with orthodontic systems, CAD/CAM programs, and imaging software as your practice expands.



DTX STUDIO™ CLINIC

A smooth digital workflow is key to maximizing the use of your imaging technology and facilitating excellent patient care. DTX Studio Clinic is the answer.

The best imaging equipment in the world can start collecting dust quickly if it doesn't mesh seamlessly with your practice's workflow. "More important than just having CBCT is having a CBCT system that integrates with the rest of your software," Dr. Akshay Vij points out. "In the long run, if it doesn't integrate with the rest of your system or ecosystem, it gets neglected, it gets left behind, and it becomes a pain to use because of the extra steps that are involved."

DTX Studio Clinic software from Nobel Biocare exists to ensure your CBCT system doesn't meet that fate. The award-winning digital platform supports an ideal digital treatment workflow, from image acquisition to treatment planning to the dental lab. One software provides all the tools needed to capture and present all images (2D, 3D, and intraoral). This makes case presentation to the patient easy. With functions that include TMJ diagnostics, direct image capture, open file import and export, report synthesis, and encrypted data sharing, to name a few, DTX Studio Clinic adapts to your practice's needs, whether specialized or general. Automatic AI-powered functions include tooth number recognition as well as SmartSetup, a fully automated tooth setup that allows you to instantly evaluate all prosthetic needs and proceed with treatment planning.

To further simplify data integration, DTX Studio Clinic is compatible with major practice management systems, eliminating the need to reenter patient identifier information. And by centralizing your imaging technology, it allows you—and the rest of your team—to immediately view images from any room of the practice. That includes patients, who can see for themselves what care they need and come to better trust your recommendations.

Beyond the Clinic

Once you have the treatment plan in hand, DTX Studio Clinic makes encapsulating all the relevant data into a single report and sending it to professional partners, including insurance companies, a quick, efficient, secure process. Either alone or in concert with other DTX Studio suite products, it helps you keep your focus on your patients—not the paperwork.



Additional Resources

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