

Dental **PRODUCT
SHOPPER**

DIGITAL IMAGING FOR A **BETTER** **PRACTICE**

Explore Air Techniques' expansive product portfolio and learn how these solutions can enhance dental care for patients of all ages



AIR
TECHNIQUES equipped for life™

Going Digital

Take your practice to the next level with the benefits of cutting-edge imaging solutions

It all begins with an image. Visualization, as enabled by technology like radiographic and photographic imaging, is the catalyst for modern dental care—a necessary window into the oral condition that allows clinicians the diagnostic awareness to chart a course for treatment. Imaging, likewise, is a powerful tool for education and helps bridge the gap between clinical and patient understanding. A high-quality image puts patients and caretakers face-to-face with their oral health and can provide the much-needed push to take ownership of problems and accept treatment.

For years, imaging in dentistry has been synonymous with traditional x-ray radiography. However, like the rest of the world, dentistry is now doing digital. Today, digital radiography, along with advancements in scanning and camera technology, grant dental practitioners the tools to better diagnose, educate, and treat patients of every age, all with an unprecedented level of speed, precision, safety, and ease.

Whether you're still reliant on analog film or have already taken steps to go digital, Air Techniques digital imaging solutions offer myriad benefits that the dental team can harness to elevate the practice.

Digital vs Traditional Radiography

Panoramic x-ray of a pediatric patient taken using Air Techniques ProVecta S-Pan

Discovered at the turn of the 20th century, the traditional, or analog, x-ray remained the standard in dental imaging for nearly 100 years. In 1987, however, a revolutionary new method became available to dentists: the digital x-ray. This exciting innovation leveraged computer and digital sensor technology to provide clinicians with an exponentially greater degree of image clarity, processing speed, as well as comfort to the patient. Thanks to the computer-enabled capabilities of digital x-ray systems, images produced are not only higher quality but easier and more efficient to obtain, especially in cases where compliance can be a challenge (as with many pediatric patients). Additionally, digital x-rays use far less radiation than their analog counterparts, meaning dentists get the images they need with minimal risk to patient safety.



Introducing Dr. Yepes

Juan F. Yepes, DDS, MD, MPH, MS, DrPH FDS RCDS(Ed) is a full professor at Indiana University School of Dentistry, and an attending at Riley Children's Hospital, the only children's hospital in Indianapolis, Indiana. A decade ago, before venturing into pediatric dentistry, Dr. Yepes spent 10 years practicing radiology and served as Director of Oral and Maxillofacial Radiology at the University of Kentucky in Lexington, Kentucky. He also owns two pediatric practices, where he has made extensive use of Air Techniques digital imaging solutions to deliver first-rate care to young patients and their families.

ProVecta S-Pan Panoramic X-Ray

Safer Imaging, Superior Quality

"In my 20 plus years of practicing radiology and navigating radiology equipment, I'm now working with the best-quality panoramic radiographic images that I've ever seen." This is how Dr. Yepes describes his experience with Air Techniques' ProVecta S-Pan Panoramic X-Ray. Since acquiring the system for his practice earlier this year, he says that he "cannot be more pleased" with the reliability, ease of use, and level of safety for his patients that the ProVecta S-Pan provides.

"When you have a high-quality image in front of you—a lot of detail, excellent resolution, you can clearly see all of the anatomical structure—it helps your diagnostic and treatment planning process immensely," Dr. Yepes explains. "Every time I request a panoramic film and my dental assistant or hygienist asks me to look at the images, I see the computer screen and think, 'Wow, this is awesome.'" In fact, he says that the first time he used the ProVecta S-Pan, "I was so excited that I had to pick up the phone and call my Air Techniques rep just to tell them, 'I cannot be happier with this machine—the image quality is absolutely amazing.'"



The ProVecta S-Pan

- S-Pan technology provides unmatched image quality and improved diagnostics
- CsI sensor maximizes image quality while minimizing radiation
- Extremely fast: OPG image from 7 seconds with especially low dose
- 7" touch display enables intuitive handling
- Easy face-to-face positioning with 3 positioning lasers
- Child mode reduces dose/scan time without loss of diagnostic info
- 17 included x-ray programs allow easier case diagnosis
- Slim design and small footprint
- Stabilizing handles compensate for patient movement
- Audio announcements for staff and patients
- TWAIN-compliant imaging software

While some dentists may be hesitant to adopt unfamiliar technology, Dr. Yepes claims that, much like other Air Techniques products, getting started with the ProVecta S-Pan is simple. "It doesn't require a lot of training and is very user-friendly," he says. "It's easy to position the patient in the unit and for the patient to understand what's going

to happen. And not only is it easy for the patient, but also for the assistant or any team member operating the machine."

Dr. Yepes also makes extensive use of the ProVecta S-Pan's child mode, which reduces the radiation dose by 45–56% and shortens the scan time, without loss of diagnostic information. "A nice feature of the ProVecta S-Pan is that you can select the patient type or body size. That way, we can always be sure that we are not using more radiation than needed to obtain a good-quality film."



ProVecta HD Intraoral X-Ray



Also available from Air Techniques is ProVecta HD, an intraoral x-ray system with a slim design ideal for the modern operator. The ProVecta HD offers the precision of a DC generator with a 0.4mm focal spot, making it a perfect companion to any Air Techniques ScanX PSP scanner. Additionally, the system's DC tube reduces the radiation dose by more than 25% compared to conventional AC units, meaning greater safety for your patients and staff. The ProVecta HD has an ergonomic handle that allows for precision positioning and makes the process more comfortable for both the clinician and the patient.

ScanX Digital Radiography Systems

Enhanced Clarity, Compliance, and Connectivity

Treating pediatric patients inherently presents a host of challenges, but two, in particular, stand out when it comes to radiographic imaging. "The first issue that we need to account for when taking intraoral radiographs in kids is mouth size," Dr. Yepes says. "We need to make sure that the system that we use accommodates a small mouth." The other is behavioral issues which, while expected for patients of a young age, still must be taken into consideration. "Together, these two considerations are going to equal compliance," Dr. Yepes explains. "Otherwise, you may take a film, but the film will not be good enough to permit a diagnostic decision to be made."

Several years ago, when Dr. Yepes opened his first pediatric practice, he began searching for a system that would help resolve the unique challenges of imaging his young patients. "Which system will give me better-quality images, more compliance, and accommodate the behavior of the patient?" he asked himself. Air Techniques ScanX Swift provided an answer.

Dr. Yepes remarks that he loves the "exceptional diagnostic clarity," speed, and ease of use offered by the ScanX Swift: "Images are crisp and clear, processing times are fast, and installation was easy."

ScanX Swift

- Crisp, sharp images in up to 20 lp/mm true resolution
- Capable of reading 0, 1, and 2 intraoral PSP sizes
- Image displays in seconds after inserting PSP
- Easy installation and compatibility with existing AC and DC x-ray systems



"In intraoral digital systems, we have two options," Dr. Yepes explains. "Solid-state sensors or the flexible photostimulable phosphor plates (PSP)." For pediatric patients, it can be a struggle to place and position sensors as they are generally too thick or bulky for small mouths, especially when a patient is fidgeting or otherwise disagreeable. Because of this, Dr. Yepes decided to use ScanX PSPs. Wireless, paper-thin, and far more flexible than sensors, ScanX PSPs are easier to place in a smaller mouth. They also possess a larger, 100%-active diagnostic surface area. Collectively, this means increased diagnostic capabilities along with greater patient compliance and comfort.

Both he and his office IT specialist also appreciate the machine's compatibility with existing office software: the ScanX Swift is capable of seamless integration with most electronic health records systems.

Great Results, Every Time

After two years of success with the ScanX Swift, Dr. Yepes added the ScanX Swift View to his workflow. In his experience, this scanner's high-resolution output, intuitive touchscreen controls, and multiple

preset scan modes make it easy to achieve great results every time with little effort. He likewise enjoys the "amazing advantage" offered by the ScanX Swift View's convenient WiFi connectivity. This affords practices the freedom to place the system anywhere in the office and request scan jobs from any workstation on the network. "In the world we live in, everything is connected by WiFi," he says. "Air Techniques is truly one of the leaders in the imaging market in terms of WiFi functionality."

CamX Elara Intraoral Camera and Spectra Caries Detection Aid

Tools for Telling Your Patient's Oral Health Story

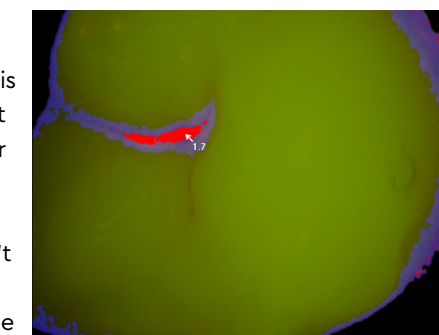


Dr. Yepes' experience with Air Techniques intraoral cameras began about 3 years ago when he became interested in using digital imaging for parent education. His search for a camera that could connect to his computer to easily show parents their children's oral condition eventually brought him to the CamX Elara. "Sometimes, one image is better than a thousand words," he says, "it's a lot easier to explain treatment and help parents understand and accept their options when they can see the decay or fracture, or a filling that may be failing."

Using the CamX Elara, Dr. Yepes was once again impressed by the sophisticated simplicity of the device, along with the superb image quality. "It's very easy to use and it tells you with a short vibration that the picture has been captured. Most importantly, the image quality is outstanding." With capture buttons conveniently located on both the top and bottom, the camera's ergonomic design and guaranteed focus from 5–35mm helps him take pictures that he can use to tell parents their child's oral health story. "In real-time, you can show the parents or the patient what you're going to do and why," Dr. Yepes says. "I like to explain things and working with the camera has been wonderful for that."

Seeking a non-invasive solution to detect decay in patients

where compliance is an issue, Dr. Yepes turned to the CamX Spectra, which he calls a "very powerful tool," especially in difficult cases. "Sometimes in pediatric dentistry, we have patients where it is very challenging to get radiographs. No matter what we use—PSPs, behavior techniques, nitrous oxide—we can't get diagnostic films."



Dr. Yepes found that the CamX Spectra has been "absolutely perfect" for achieving useful images in these cases. He also noted that, "like other Air Techniques products," compatibility with office systems is seamless. "The CamX Spectra is easy to connect and storing camera images in our electronic health records poses no problem at all."

Air Techniques: Perfect for the Pediatric Practice

The combination of outstanding image quality alongside exceptional ease of use makes Air Techniques digital imaging solutions ideal for any practice. But these benefits also mean fewer retakes, which, for the pediatric dentist, is especially important.

"There is a consequence of retakes," Dr. Yepes reminds us. "Every time we need to retake a film of a child, we are giving double the dose of radiation." In 2007, the Image Gently Alliance was formed—this coalition of health care professionals is dedicated to advancing safe, high-quality pediatric imaging worldwide and raising awareness of the need to adjust radiation dose when imaging children. As Dr. Yepes states, "a system that is user-friendly and delivers diagnostic-quality images means fewer retakes and less radiation to the young patient." In his opinion, this is among Air Techniques' greatest contributions to dentistry: their dedication to the design of safer, simpler imaging solutions is in alignment with the goals of Image Gently and, ultimately, makes their digital product portfolio "perfect for the pediatric practice."

Additional Resources

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