

# Flexible phosphor sensors: The perfect fit for digital implant radiography

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In the 31 years since I began practice, there have been few developments in the field of dentistry as profound as the growth of dental implants. Implants represent a high and growing percentage of the surgeries I perform, and it is truly gratifying to observe what a dramatic impact these procedures can have on the quality of life and self-esteem of my patients.

It is also gratifying to be able to perform surgical implant procedures more effectively and efficiently than ever before, and the reason for this is my use of digital radiography.

I had used only film radiography throughout my career, but in 2009, as more and more insurance companies had stopped returning our film images, I decided it was time to "go digital." I began using a PSP system, now more commonly referred to as a flexible phosphor sensor system. The system was the ScanX® Classic manufactured by Air Techniques.

I realized that many dentists had made rigid sensors their digital radiography option of choice, but this option never made sense to me. After researching the two main digital options by reading everything I could and talking to users of both tech-

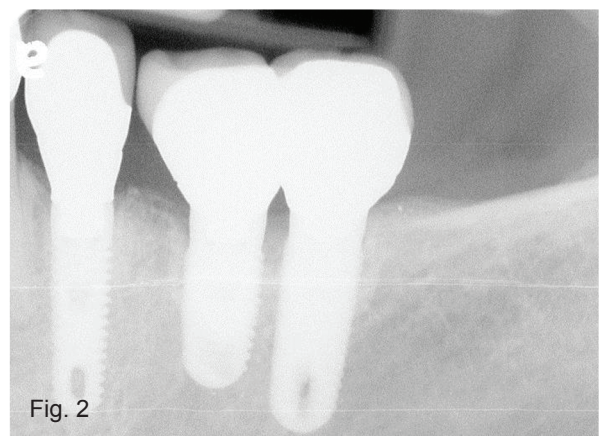
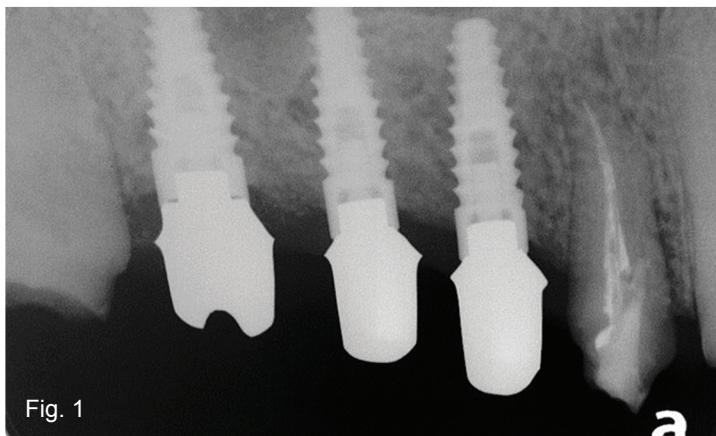
nologies, I emerged with numerous concerns about rigid sensors. One is that the rigid sensor wires can be cumbersome and overly restrictive. I also feared that rigid sensors would be uncomfortable for many of my patients, particularly those with small mouths, large tori and gag reflexes.

Other concerns were the high cost of both purchasing and insuring rigid sensors, and the fact that my staff and I would need to learn a different chairside workflow and placement technique. A final concern I had was that rigid sensors often are unable to capture the full apex in periapical images.

Meanwhile, my investigation of the flexible phosphor sensor option revealed none of these problems. Flexible phosphor sensors are wireless and much smaller, lighter, thinner and more flexible than rigid sensors.

As a result, they can be used very comfortably with any patient, which means you can capture 100 percent of the images you need. Moreover, most flexible phosphor sensors cost less than \$40 each, can be re-used hundreds and even thousands of times, and require no costly insurance. In addition, they require

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Dr. Marvin A. Price)





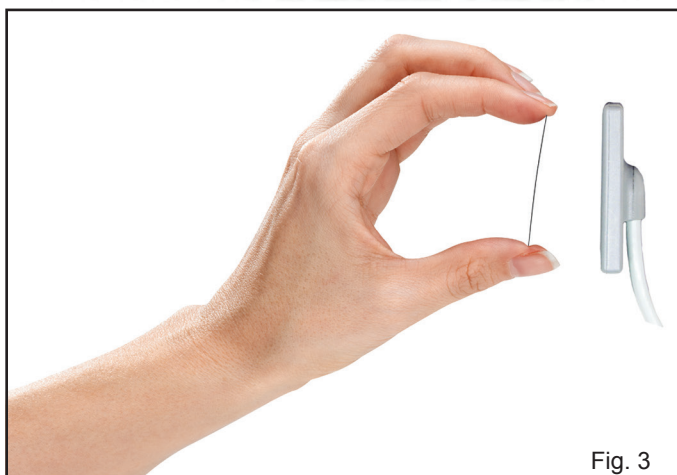


Fig. 3



Fig. 4

virtually no learning curve for practices transitioning from film, as the workflow and placement technique are identical.

Importantly, flexible phosphor sensors have a larger image area than rigid sensors. This is particularly crucial when taking radiographs for implants, as we need to see the entire apex because it shows the leading edge of where we are going with the implant. Because of this larger image area, I cannot recall ever having to do a re-take in the four and a half years I have been using flexible phosphor sensors.

Both rigid sensors and flexible phosphor sensors process images in a fraction of the time it takes with film, which is a great benefit. In theory, rigid sensors are the faster of the two digital options because they are wired directly to the operatory computer but, in practice, this advantage often disappears due to the need for retakes resulting from either the smaller image area or the difficulty of placing the sensors in patients' mouths.

Flexible phosphor sensors deliver one particular advantage over film that I had not fully anticipated: an array of enhanced diagnostic tools. Being able to adjust the contrast, reverse images, colorize and switch to 3-D mode significantly strengthens my treatment planning. Just as important, these features also allow me to interact more meaningfully with my patients and to help them understand the problems we are treating. This creates what I call a "Voila!" effect, as my patients are generally quite impressed when I show them these images.

Other meaningful advantages of digital radiography over film include the absence of the need to purchase and store costly chemicals, the fact that your staff no longer has to do the messy job of maintaining a chemical processor and digital's significantly more efficient image access and storage.

Recently, the advantages of using flexible phosphor sensors were expanded with the introduction of

the ultra-compact ScanX Swift unit. With a roughly 9-by-9-inch footprint and a weight of just about 14 pounds, the Swift is ideal for chairside use. I have been using it for a few months now, and I have been very impressed with its image processing time of less than nine seconds. Having this unit in the operatory allows me to do direct measurement right on the monitor and confirm the precise length needed for the implant. It truly is the perfect fit for my practice.

If implants are an important part of your practice, I cannot imagine a more effective, efficient or affordable radiography solution than flexible phosphor sensors.

#### \_about the author

#### implants

Marvin A. Price, DDS, is a periodontist with specialized training in regenerative therapies and implant dentistry. He earned his bachelor of arts degree from the University of Pennsylvania in 1976, graduated from New York University College of Dentistry in 1980 and completed an internship in general dentistry at Albert Einstein College of Medicine/Jacobi Hospital. Price then returned to NYUCD to complete the postgraduate specialty program in periodontics in 1983. He has been board certified by the American Board of Periodontology since April 1991. He is a member of the American Academy of Periodontology, American Board of Periodontology, American Dental Association, Northeastern Society of Periodontists, Long Island Academy of Periodontists and Nassau County Dental Society. Price has been assistant clinical professor of the Department of Periodontology and Implant Dentistry at SUNY of Stony Brook for more than 27 years. In 2009, Price was awarded the status of fellowship in the International Congress of Oral Implantologists.

