

# editorial commentary

## IMPROVING DIAGNOSIS THROUGH THE USE OF DIGITAL RADIOGRAPHY

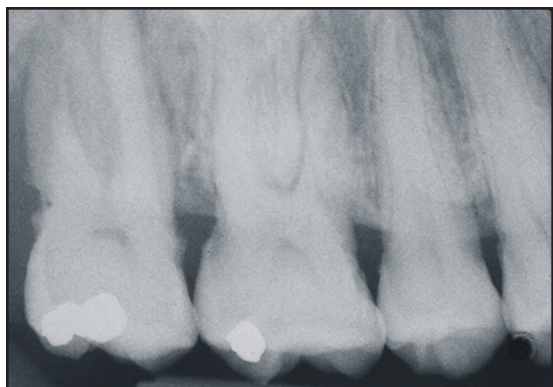
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As aesthetic dentistry has gained in popularity among consumers, who are more aware of the potential it has to correct deficiencies in their smiles, practitioners are challenged to improve the nature of their treatment. Often, this entails providing treatment with a smaller associated expense, reduced treatment duration or expense, and with increased comfort to the patient throughout the procedure. Facing these imperatives, greater numbers of practitioners have opted to incorporate digital communications among the members of the interdisciplinary treatment team.

Digital photographs are essential for the general practitioner, particularly with regard to their ability to rapidly and effectively document the patient's condition. In the diagnostic phase, the use of digital radiography presents considerable benefits to the practice as well. When the office staff is properly trained on the capture and handling of digital radiographs, the clinician has a powerful resource to aid in the diagnosis and treatment planning of a given patient.

### Digital Radiographs—Diagnostic Benefits

Digital radiography, which allows one to instantly capture and view the intraoral structures of the patient (and to obtain additional images as necessary), can



**Figure.** Digital radiographs allow clinicians to quickly assess their patient's condition and to perform the necessary treatment planning, such as in this socket that will require grafting to support implant placement.

be instrumental in the dentist's evaluation of overhangs, marginal integrity, and structural changes that require dental care (Figure). Once captured digitally, a radiograph can be examined on the computer, allowing the clinician to manipulate and/or magnify the image exponentially. Today's digital radiography systems have a host of software applications aimed at improving image clarity, contrast, and other limitations that could be of concern with radiographs obtained via conventional means.

Images acquired digitally can be instantly shared with specialists and thus improve the team's treatment-planning capabilities.<sup>1,2</sup> Digital radiographs can also be shown to patients, who have an increasing appetite for understanding their situation and being involved in the selection of the right course of therapy. Benefits of digital radiography in the consultation phase include, but are not limited to, the following:

- Reduction (an estimated 70%) in radiation exposure<sup>1,3</sup>;
- Rapid image acquisition;
- Increased storage/archiving capacity; and
- Interdisciplinary treatment planning.

While there are various practice management benefits associated with digital radiography, the diagnostic capabilities of these technologies (eg, Schick Technologies, Long Island City, NY) have tangible applications for daily use. Considering the host of factors that are influenced by the determination of an accurate diagnosis, shouldn't this goal—which can be aided significantly by digital radiography—be a focus for every practitioner?

### References

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2. Garber DA. Increased application of digital radiography for implant therapy. *Pract Periodont Aesthet Dent* 2000;12(1):73-74.
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