The impact of CAD/CAM on dental practices

Interview with Dr Jonathan L. Ferencz who shares his experiences with CAD/CAM technology in dental practice

By 3Shape

In what way has CAD/CAM made a major difference to your dental practice and patients?

The first time I really experienced the difference CAD/CAM has made for my patients was with one patient, a very successful partner at a well-known architectural firm. He came in on a Friday afternoon around 2 p.m. and said, “John, I’m very sorry to bother you but the crown on my front tooth just cracked. I’ve got a really important dinner tonight with clients and I’m going away on a 14-day ski trip with my family. If I don’t make the trip, I’m in trouble. If you made me a temporary, I would be most appreciative.”

His crown was in two pieces. I told him that I believed that we could do more than just make him a temporary crown for the ski trip. Of course, he did not imagine us using a scanner for not just some patients, but EVERY patient.

I took the broken piece and slipped it back into his mouth; it fitted perfectly. Ninety minutes later, the patient left with a final crown and not a temporary.

As a follow-up, he later told me that he must have really bored his clients at dinner that night, because the only thing he talked about was the crown we made in that one visit.

Now, whenever I see an emergency, I think we could make him a new crown with CAD/CAM and the laboratory. Of course, he did not think this was possible.

I took the broken piece and slipped it back into his mouth; it fitted perfectly like a jigsaw puzzle. Then had my assistant take a pre-preparation scan. I next took the broken piece off, administered a little Novocain to the patient and ground away the piece that was still cemented. I placed a cord and scanned the preparation with our TRIOS scanner (3Shape). The technician in the laboratory then designed and milled the patient a new crown.

“Nothing,” my technician later told me, “is more important than speed.”

In the old days, I would have tried an amalgam restoration, a composite restoration and a vertical crack from the incisal edge to the gingiva. But from the lingual, there was an amalgam restoration, a composite restoration and a vertical crack from the incisal edge to the gingiva. But how can you show that to the patient when it is on the lingual side?

In the old days, I would have tried with a mirror or taken a photograph and loaded it on the computer or an iPad. This would have taken 20 minutes. The patient would have been looking at his or her watch, thinking about getting out of the office. The key in situations like these is speed. So, now, rather than taking out the camera and iPad, I reach for the TRIOS.

Another important advantage of digital technology is its potential for patient education. For example, I had a patient with a lateral incisor that was perfect from the facial aspect, but from the lingual, there was an amalgam restoration, a composite restoration and a vertical crack from the incisal edge to the gingiva. But how can you show that to the patient when it is on the lingual side?

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Do you envision scanning being a routine part of a patient visit?

There is so much information that I can now see from looking at the enlarged scan. It is like looking through my loupe that gives four and a half times the magnification. With a scan, I can expand the image on my screen to be as large as I like. Basically, I can imagine us using a scanner for not just some patients, but EVERY patient.

Do you think that one day decisions on treatment could be made by just reviewing digital scans?

The best patient is an educated patient, but the communication or educational process has to be quick and intuitive. It cannot entail capturing an image, loading it on to the computer, locating the image, etc. So, now, rather than taking out the camera and iPad, I reach for the TRIOS.

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Are there more advantages of this technology?

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So the scan serves to educate and, in a way, empower the patient.

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