

PFM Use Declining

Many dentists have been searching for a material that could be used to fabricate anterior crowns which would be more esthetically pleasing than the traditional porcelain-fused-to-metal (PFM). One of the difficulties was finding a laboratory technician which could fabricate a PFM that would blend in with an adjacent natural tooth.

Many dentists will agree that the most difficult task in dentistry is matching a single-unit PFM into the natural surrounding dentition. Even when a lab tech nails the shade, there is still a problem with the vitality of the PFM crown: it simply does not absorb or reflect light like a natural tooth. Many patients are forced to settle for PFMs that aren't great shade matches for the adjacent teeth, but after three or four try-ins, many patients decide to just settle for less-than-optimal esthetics.

The Rise of All-Ceramic Systems

Many dentists were understandably excited when all-porcelain systems were designed to replace the PFM in anterior situations. One of the big advantages of an all-ceramic crown compared to a PFM is that by using tints and opaquers to modify the luting cement, a dentist can influence the final shade of the restoration. With a PFM, the crown either matches or it doesn't, and any changes necessitate a return trip to the lab. All-ceramic crowns have much more versatility and a much lower rate of laboratory return for reshading.

However, many of the early all-ceramic systems had a bad reputation as a result of the high number of crowns that fractured after they were placed in the patient's mouth. A number of these early fractures were the result of dentists placing these crowns with conventional cements, unaware that the crowns simply weren't strong enough to be cemented with these materials. The other main reason for these early fractures was incorrect preparation. Many dentists were prepping these teeth exactly the same way as they were prepping teeth for PFMs, resulting in a lack of porcelain thickness and subsequent fracture. With the realization that these all-ceramic restorations needed to be bonded into place with resin cements, the majority of these failures were erased. However, a new source of failure appeared with these restorations.

Instead of fracturing, these restorations began to show microleakage, typically around the facial gingival margin, which would immediately ruin the esthetics of the all-ceramic restoration. It became apparent that if moisture could not be completely controlled in and around the sulcus at the cementation appointment, the resin cement bond to the tooth would almost certainly fail. This especially comes into play when you are replacing old PFMs with preexisting subgingival margins, or a trauma case, such as the one Dr. Howard presented in this issue. The ability to cement all-ceramic restorations with conventional cements presents a great indication for those areas where isolation cannot predictably be achieved.

The Importance of Time Management

Dr. Howard correctly states: "In esthetic dentistry, time management is one of the keys to success." Although that certainly can be said of all procedures in dentistry, one of the reasons it is especially true in esthetic dentistry is because many dentists do not perform these procedures on a day-in, day-out basis. A good example of this is the typical maxillary anterior, eight-porcelain-veneer case. According to most office staffs, many dentists go over their scheduled time at least an hour on the preparation and, especially, the cementation appointment. Couple that with the fact that many offices still charge less for a porcelain veneer than they do for a PFM, and you end up performing a difficult case (the veneers) for less profit than an easier case (the PFMs).

Part of time management is familiarity with the procedure, and the other part is familiarity with the materials. Conventional cementation allows for a much shorter cementation appointment because of the material's ease of use and the dentist's and staff's familiarity with it. This does not mean that we now use conventional cementation in all cases just because it's faster, especially when other all-ceramic systems have better esthetic properties but need to be bonded into place. On the anterior cases in which we need to bond all-ceramic restorations into place, rather than concentrating on time management per se, we have adjusted our all-ceramic crown fee to be 15% more than our PFM fee to take into account the extra time necessary at the luting appointment. Until most dentists raise their all-porcelain crown and veneer fees to be 15% to 20% higher than their PFM fee, we will continue to find many dentists who do not enjoy performing these patient-friendly procedures.



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Dr. Michael DiTolla practices in two locations that emphasize esthetic dentistry and orthodontics, an essential component of esthetic dentistry. He is a nationally recognized lecturer on practice management for esthetic practices, and he serves on the editorial board of Contemporary Esthetics and Restorative Practice. He also lectures regularly for P.A.C.-live, a hands-on esthetic program allowing dentists to treat live patients.

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Who is Interested?

We ask a couple of questions on our dental history form to determine who is interested in esthetic dentistry and who is not. All new patients fill out this form, as well as patients who are updating their health histories before their recall appointments. Rather than having to remember to mention the latest advances in esthetic dentistry to all of our patients, we find it much easier to ask the questions in written form on the dental history:

- ▶ **If there was a simple inexpensive way to whiten your teeth, would you be interested?** Although we mainly use this question to identify who is interested in bleaching, it will often lead us into a discussion about veneers, especially if the patient has moderate alignment problems, tetracycline stains, etc. We also find that bleaching is a "portal" for many patients into more advanced esthetic procedures, and that as soon as patients whiten their teeth and begin to love their smile for the first time in their life, their teeth also become a worthwhile investment.
- ▶ **If you could change one thing about your smile, what would it be?** This question is a little more direct to find out who is interested in major esthetic changes, such as veneers or adult orthodontics.

Do you and your patients a favor and add these questions to your health/dental histories immediately. That way, you can identify all of your existing patients who have been interested in improving their smiles but had no idea of the fantastic procedures modern dentistry has made available today. ■