

# TRUE CONFESSIONS

## of a glass ionomer user

It's no mystery — glass ionomers are the wonder workers of dentistry.

By IAN SHUMAN, DDS

Glass ionomers: The words sound boring – like something out of a dusty dental materials textbook from the 1940s. Nothing could be further from the truth. Today's glass ionomer materials are highly advanced, tooth-saving materials that behave in an almost supernatural way. They are dimensionally stable, fluoride-releasing cements, liners, restoratives, sealants, and all-around good guys. They are available in self-cure, light-cure and dual-cure forms. Today, the variety of materials includes the conventional glass ionomer, resin reinforced glass ionomer (RRGI) and compomers.

The problem? Too many choices. More than 118 varieties of glass ionomers exist, all claiming unique and superior function. Choosing the right material can be a bit confusing at best. Read on to discover some real, in-the-trenches restorative warfare and how simplistic the selection process can be.

### **True confession No. 1: The cop**

About five years ago, a colleague went on vacation, and I agreed to cover his emergencies. One of his patients, a burly, 6' 5" policeman walked into my office with a cracked, very decayed upper first premolar. Ideally, this square-jawed giant needed a root canal, post/core and crown. However, the first commandment in the Covering for Your Colleague rulebook is, "Thou shalt not steal a crown procedure from thy fellow dentist." What to do, what to do...?

After pondering the intraoral image and radiograph, there was one excellent solution: Resin reinforced glass ionomer (RRGI). It was simply a matter of removing the caries, injecting the RRGI (Vitremmer, 3M; Fuji II, G C America) and holding the split segments together. Problem solved, right?

Well, sort of. The next week, I phoned my colleague (who by then had returned from vacation) and related this wonderful story to him. Instead of being overjoyed, he was absolutely furious. The problem was, this patient only appeared for emergencies and now that the tooth was "repaired" he would only return when the next crisis occurred. I inadvertently treated this tooth too well -all due to the magic of glass ionomer.

### **True confession No. 2: The root perf**

Around that same time, I was a total endo head, having attained over 150 CE hours in this discipline. Needless to say, I was ready for anything root-canal related - or so I thought. A new patient had complained of waking with a bad taste and nausea every morning. After a thorough intraoral exam, I discovered a draining abscess between the upper left lateral incisor and canine. A radiograph confirmed a lesion of endodontic origin with a shocking cause: The root had been perforated during a prior root canal and the accessory gutta percha points were actually shoved through the perforation into the PDL space.

The mind races at such a sight with treatment considerations and potential long-term outcomes. A surgical approach could be awkward (Where was the perf? And was it distal, or lingual?) Retreatment was no guarantee of success. To compound matters, the patient wanted to save the tooth. This was a complex situation and a self-proclaimed "endomaniac's" dream.

The simplest, most elegant "noninvasive" solution was to perform an intentional replantation. This procedure -while more common in Europe - offers a high rate of success when performed quickly and meticulously.

After setting a countdown timer to 15 minutes, I extracted the tooth and removed the gutta percha, debrided the necrotic root structure surrounding the perforation, and resealed the canal. For the coup de grace, I then filled and sealed the perforation with -you guessed it -RRGI! (Geristore, DenMat). For decades, Geristore has been the stuff of legend. It has been clinically proven to demonstrate periodontal ligament reattachment to its unique surface structure, and is an ideal root restorative.

Once restored, I then placed the tooth back into the socket and splinted it to the adjacent teeth for seven days. The abscess healed, the tooth was stable, and the procedure was a success.

### **True confession No. 3: My best friend's kid**

I love children, but I hate treating them. As an arm-chair therapist, I suppose this goes back to my own shadowy childhood memories of the dentist: big needles, the "mosquito bite" of an anesthesia injection, and the smell of burning tooth and eugenol. When I became the treating dentist, my first pediatric patient experience was at the peds clinic in dental school. Seeing the kid in the chair, my pulse raced and little beads of sweat formed on my brow. The problem was, I empathized with the little guy and didn't want to hurt him or put any fear into his memory.

Needless to say, all went well, but to this day, I am still uncomfortable with treating children, although I now manage to do so sans sweat and tachycardia. However, with new treatment techniques and materials, pediatric restorative work is now a breeze.

Sooo, my best friend's kid -who also happens to be my son's best friend -complained of gum soreness in the lower right area. Tooth no.5 had an obvious DO lesion, and, after rapidly debriding the area using SS White's Fissurotomy bur system (no anesthesia required), the tooth was restored using Fuji IX. This life-saving restorative did not require yucky tasting acid etch or the even tastier resin bonding agents, rubber dam isolation, or a dry field. In fact, the material works best in a moist environment as this promotes a better bond strength and allows the smear layer to remain, which helps to avoid future tubule sensitivity. I wanted to declare: "Behold, the great dentist, hero to children and nervous parents everywhere!" but they lock people up for that kind of stuff.

Essentially the highly versatile glass ionomer materials are suitable for the majority of restorative scenarios. Using them will guarantee a high rate of success and a happy, healthy patient. What are you waiting for?