Achieving consistency and easy cleanup with TheraCem®

Why Catapult Group evaluators say this cement from BISCO is worthy of being used in their own practices.

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CATAPULT EDUCATION

ABOUT THE REVIEW

Catapult is an organization that consists of more than 50 clinicians spread throughout Canada and the U.S. As a company, manufacturers pay a fee for their product to be evaluated, and Catapult delivers truthful, independent answers from surveys it develops with them. The organization has had many products that have either had to be altered before hitting the market or simply never arrived because of its openly honest evaluations. In this way, Catapult assists the manufacturer to avoid potentially releasing a faulty product or one that needs refinement. Lastly, Catapult's clients are omnipresent in the industry, ranging from small to large, so there is no favoritism.

So many cements, so little time. There are many excellent cements on the market today, but with many being so similar in appearance and performance, it's hard to tell the difference. To look at it another way, there are many self-adhesive, dual-cure resin cements that you could hardly tell apart if there was no label. Some a little more viscous, some a little more translucent, some with a little slower set time — all very similar in most things that matter clinically.

The evaluators at Catapult Education clinically tested and reviewed a novel self-adhesive, calcium- and fluoride- releasing[1], dual-cure resin cement, TheraCem® (BISCO). One hundred percent of evaluators said it was a cement worthy of use in their own practice. The most common features the evaluators liked the most were cleanup, handling and ease of use. Ninety-one percent of the evaluators said its consistency was just right, with 82 percent giving it a top score for ease in cleanup.

An important consideration with TheraCem that distinguishes it from much of the cement market is its high calcium and fluoride release. As one evaluator put it, "Probably the best everyday cement in dentistry today. It's easy to clean up, making it great for implant crowns. Its esthetics and simple delivery system make it perfect for routine indirect restorative … all this with high calcium release."

With zirconia and lithium disilicate dominating the indirect restorative market today, clinicians are looking for a versatile, esthetic, self-adhesive luting material that gives great long-term performance with either material. TheraCem comes in a "natural" shade, which is a somewhat opaque-looking luting material and, depending on the thickness and translucency of the restoration, could influence the shade. As someone who has used this cement in just under 500 units, this practitioner hasn't seen this as a clinical issue.

Clinical case

In this case with rampant decay, strength and esthetics with marginal integrity for a reduced chance of recurrent decay are all critical (**Figs. 1-2**). After restoration of posterior teeth using silver diamine fluoride and other regenerative restorative materials, the maxillary anterior teeth were restored. Eight monolithic anterior zir-

TheraCem®

TheraCem® is a dual-cured, calcium- and fluoride-releasing, self-adhesive resin cement engineered for luting crowns, bridges, inlays, onlays and posts (prefabricated metal/non-metal/fiber posts). As a self-adhesive cement, TheraCem reportedly delivers a strong bond to zirconia and to most other substrates. It's also engineered to provide easy cleanup and high radiopacity.

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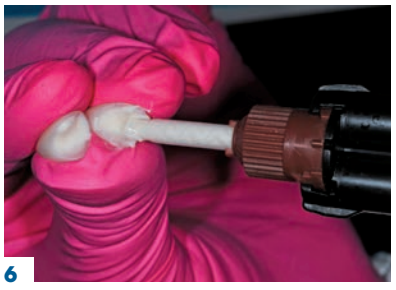
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[**Figs. 1-10**] A patient with rampant decay and less than ideal esthetics (Fig. 1). The plan was to remove most decay, use silver diamine fluoride to arrest some decay and regenerative direct materials (Fig. 2). Eight anterior translucent zirconia crowns were made with slight characterization with no layering porcelain (Fig. 3). A zirconia cleaner and calcium-releasing, self-adhesive cement was used (Fig. 4). After try in and rinse, ZirClean™ was placed, allowed to set two minutes and rinsed well to maximize adhesion to the zirconia (Fig. 5). TheraCem was placed in the crowns (Fig. 6). Working time is sufficient to seat all eight restorations at once with excellent film thickness and viscosity (Fig. 7). After chemical cure to a harder gel state, the cement is pushed toward the gingiva in the interproximal areas and mostly removed in a few large pieces (Fig. 8). The day of cementation shows how the ease in cleanup results in minimal residual cement (Fig. 9). Despite the high calcium content, this cement has very little influence on final color, resulting in a very good clinical outcome (Fig. 10).

conia crowns were made with no layering porcelain (**Fig. 3**). Note that this zirconia has noticeably more translucency than traditional posterior zirconia materials and can be seen through these restorations while on the model. The restorations where tried in and rinsed. Phosphates and proteins from blood, saliva and crevicular leakage lessen the bond to zirconia and a nonabrasive cleaner is preferred for maximum adhesion (**Fig. 4**).

ZirClean™ (BISCO) was applied to each restoration, rinsed and air dried (**Fig. 5**). The teeth were cleaned, isolated and filled with TheraCem (**Fig. 6**). After placement, the chemical cure was allowed to happen for about 90 seconds, excess cement removed and then light cured (**Fig. 7**). The easy cleanup makes this material unique in the self-adhesive, dual-cure resin cement world and the majority is removed in large pieces (**Fig. 8**). Even with the very translucent zirconia, the influence of the cement is minimal, even at the margins.

Notice also that the ease of cleanup results in thorough cement removal; this photo is minutes after placement (**Fig. 9**). The high calcium and fluoride release provides a number of benefits that may ultimately result in longer lasting restorations given each particular case (**Fig. 10**).

BISCO has developed a great product in TheraCem, and for this reason, we are pleased to give it the Catapult Vote of Confidence. It truly is a cement that distinguishes itself in its category particularly in the zirconia and lithium disilicate world. ●

REFERENCE

1. Gleave CM, Chen L, Suh BI. Calcium & fluoride recharge of resin cements. Dent Mater. 2016 (32S):e26.

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