

# The Buildup to Restorative Success

*Core-Flo DC and Core-Flo DC Lite make core buildups easy and predictable, allowing clinicians to move away from posts in endodontically treated teeth whenever possible.*



# It's Time to Embrace the Core Advantage

*Bonding advancements make core buildups an option that lead to fewer restorative failures.*

There was a time, maybe 10 or 15 years ago, when every root canal was restored with a post. It was just part of the procedure. That rule has changed, and it's for the better.

While posts placed in endodontically treated teeth were previously thought to provide extra strength, many believe that posts—which have evolved from the biomechanically complex metal to the more flexible fiber—can weaken restored teeth and often lead to fractures. Increasingly, dentists are shifting their focus to core buildup materials.

Advancements in bonding have made this possible, BISCO Manager of Clinical Marketing Dr. Rolando Nunez said. With materials like Core-Flo DC and Core-Flo DC Lite, clinicians can complete the buildup of the surface, prep, and then use bonding techniques to achieve the needed retention for the restoration. "Today, the only reason to use a post is to help in the retention of the core buildup," Dr. Nunez said. "People are relying on bonding because it has proven to be efficient and strong, and with new materials that provide a reliable bond, clinicians are



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—Adamo Notarantonio, DDS, FICOI, FAACD

moving to doing core buildups without the posts when possible."

Adamo Notarantonio, DDS, FICOI, FAACD, is among those clinicians. He's used BISCO's core buildup products for years, preferring the consistency of Core-Flo DC over the more flowable Lite option. He describes it as his go-to product for any dentin replacement case because of the way it handles and stays where he puts it—never slumping or losing its shape. He can shape the prep the way he wants it as he dispenses the material, without having to cut back as he goes. The material also cuts very similarly to dentin, another benefit over options like composites that aren't made specifically for buildup procedures.

Of course, Dr. Notarantonio likes the fact that, in most situations, this technique eliminates the need for a post in his endo cases. "I try to avoid posts at all costs, because they increase the risk of fracture in the teeth," he said. "If there is any little bit of tooth structure, I prefer the core buildup."

## When to Use a Post

It's important to note there are cases when a post is required—such as when there's no tooth structure left and very little bond surface area for the core buildup. In these cases, the post will help retain the core buildup as part of a post and core. "If I have to use a post, it's usually when the tooth is cracked down to the gumline and there's nothing to build on,"

Dr. Notarantonio said, noting he follows the same guideline in both the posterior and the anterior. "You have to evaluate how much tooth structure you have left and if you're able to hold a core in place without a post. There are times when you have no choice but to use a post, but you do what you have to do to save the tooth rather than extract it."

If clinicians decide a post is necessary, they can cement it with Core-Flo DC or Core-Flo DC Lite, but a bonding agent is required. BISCO's Universal Primer, which comes in the kit with the core materials, fills that need.

"You can do it all in one shot," Dr. Nunez said. "You cement the post and you finish the buildup all at once. That adds convenience, making the material more versatile.

Not only can you use it for core buildups, but you can also use it to cement a post if you decide one is needed."

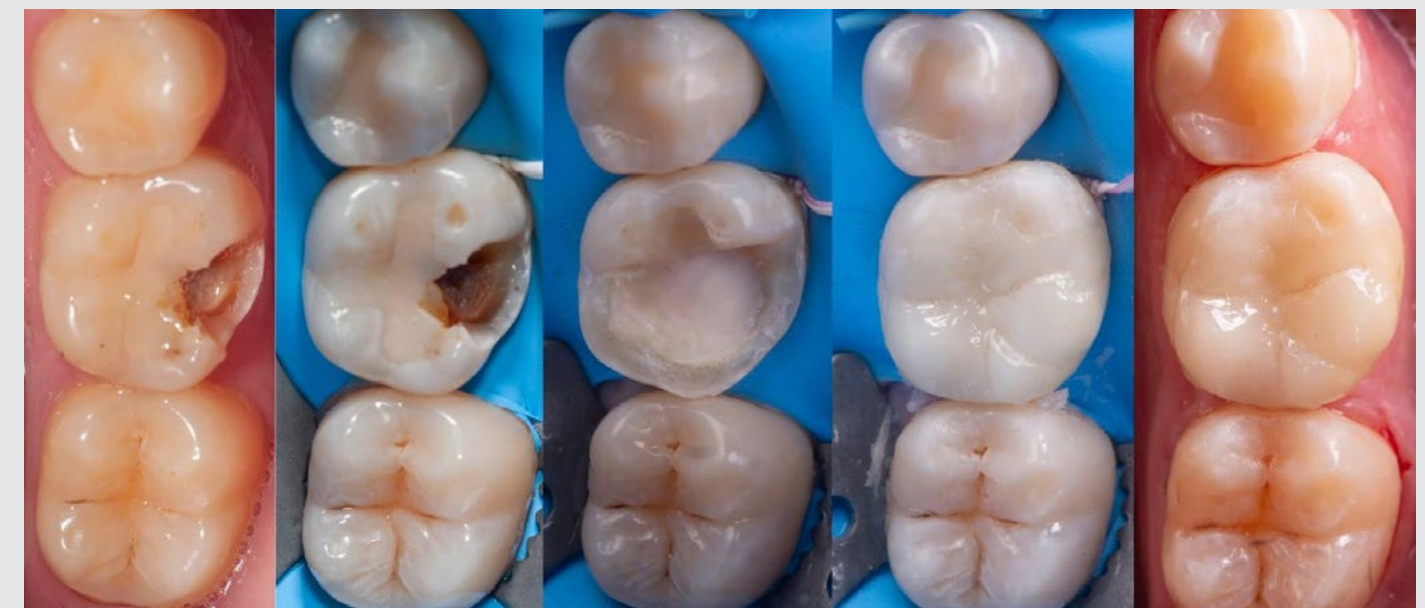
## The Core-Flo Advantage

Some clinicians opt to use composite for core buildups, but that isn't nearly as effective or efficient as using a material designed specifically for the procedure. BISCO's Core-Flo products are dual cured, which means clinicians can place thick layers of the material at 2 or 3 cm without having to rely on light curing to polymerize properly, Dr. Nunez said. Without the dual-cure feature, there's no guarantee the light would penetrate the material.

"When I'm dealing with endodontically treated teeth, I want a light and chemical

## CASE IN POINT: CORE-FLO IN ACTION

Dr. Johan Figueria has used BISCO's Core-Flo materials in his practice for two years and has been happy with the results. Here's a case involving a tooth that was endodontically treated before being restored with core buildup and a crown. The case images show (l-r), prep; rubber dam, elimination of the decay and immediate dentin sealing with BISCO's All-Bond Universal; undercuts blocked out, buildup with Core-Flo DC Lite, and digital impression; restoration with a bonded e.max crown (Ivoclar Vivadent); finishing and polishing.



## WHICH CORE-FLO DC MATERIAL SHOULD YOU CHOOSE?

The original Core-Flo DC is thicker in viscosity and more stackable, Dr. Rolando Nunez said. It doesn't slump when placed, giving clinicians more control over the material. When it was first introduced, many dentists liked the material's properties but wanted an option that was more flowable. The team at BISCO listened and created Core-Flo DC Lite.



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Both dual-cured materials offer the same benefits and perform the same function. Which one clinicians choose is a matter of personal preference. Whether clinicians go with the more stackable or the more flowable version, it's important to invest in core materials rather than relying on composite for core buildups, Dr. Nunez said.

"We believe in products that are specifically designed for certain clinical applications," he said. "If you're going to do a core buildup, you should use a core buildup material."



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cure to ensure the material will be fully polymerized and set," said Devin McClintock, DDS, who also uses the Core-Flo DC products in her practice. "That's how you're going to achieve maximum strength of the material in the mouth. You have more control over the material, including setting and shaping."

The color of the material is also important to Dr. McClintock, who wants something similar to natural dentin, versus darker or gray. And



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—Devin McClintock, DDS

consistency is a big factor. She knows if she follows the proper steps for her core buildups, the Core-Flo DC materials will behave the same every time. They have the "delicate balance of being flowable,

but not too runny," she said. They're easy to stack and level out on their own. If there is a deep box and the need to build up against a matrix, or a deep endo access, the flowable material can get into crevices and

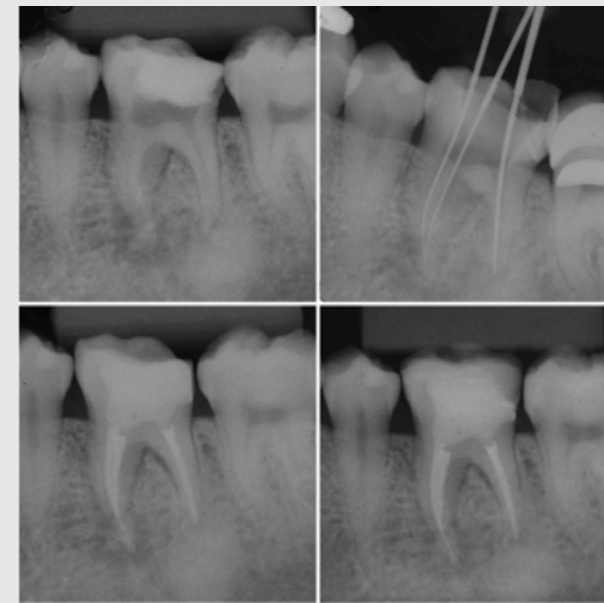
## CASE IN POINT: SOLVING A RESTORATIVE CHALLENGE

A fistula was present on the lower left molars for two months before the patient sought help from endodontist Dr. Andrés E. López. The tooth had a provisional restoration (IRM) and cotton in the pulp chamber. The preoperative x-ray revealed the presence of a fractured file in the mesiolingual canal.

Following caries removal, selective etching, and application of CHX 2%, a distal deep margin elevation was completed. All-Bond Universal was placed on the distal composite before endodontic treatment and obturation with bioceramic cement and gutta-percha. All-Bond Universal and Core-Flo DC Lite were used to build the core structure. The patient was prescribed antibiotics and, upon returning 10 days later, the fistula had disappeared. Restorative work was then performed, culminating with the cementing of a lithium disilicate overlay with Duo-Link Universal adhesive resin cement.



**Figure 1**—Upper left, preoperative image; upper right, after endo and buildup; lower left, the CAD design; lower right, lithium disilicate overlay in place.



**Figure 2**—X-ray images of endodontics—upper left, pre-operative image; upper right, working length; lower left, obturation and build-up with Core-Flo DC Lite; lower right, lithium disilicate in place, case finished.

then level out. Other materials she's used in the past have been too viscous or thick and didn't offer the flow of these materials or were too runny.

The delivery system is also easy to use, which saves time. "When I'm placing the material, it gives me the freedom to stack, and it will stay in place," she said. "I can mold and shape it for the first few seconds or so, hit it with the light, then leave for five minutes and it won't move or do anything I don't want it to do."

### Materials You Can Trust

Dr. Johan Figueira, who has used the Core-Flo DC products for two years, lauded their viscosity, color, mechanical properties, and the fact they're easy to use. He typically turns to these materials when removing old amalgam to block out undercuts and to build up post and core. Having that one go-to material simplifies the procedure for his team. "The main problem it solved is we finally have a product to block out and build up," he said, "because it was confusing to my team to have so many options in the cabinet as high-filler flowable composite, regular composite, dual cement, and bulk fill to solve a block-out situation."

The entire process Dr. McClintock goes through for her buildups takes about 10 minutes. "You can't rush good dentistry," she said, adding that she knows when she's done that the bond strength has been maximized—preventing the need for additional visits due to restorative failure. The chair time saved in the long run and the happy patients make the use of Core-Flo DC products a no-brainer.

"The way it dispenses, the color, the viscosity, all those things make these ideal core buildup materials," she said. "For me, it's about the reliability of the products. Since I began using these materials, I have not had any issues with my buildups, and to me that is worth its weight in gold."

## CASE IN POINT: BUILDUP TO THE PROVISIONAL CROWN

Dr. Devin McClintock recently treated an emergency patient who presented with a fractured No. 9. Here's how she approached the case:



**Figure 1**—The upper left central incisor had root canal therapy years ago, but was never treated for a definitive restorative restoration. A radiograph confirmed plenty of ferrule for a definitive restoration. Due to significant crossbites bilaterally in the anterior and posterior, comprehensive orthodontic treatment was recommended. The patient elected to have the tooth built up and a provisional crown permanently cemented as an interim measure until orthodontic treatment could be completed.



**Figure 2**—Absolute isolation technique was completed with a medium gauge rubber dam and a B4 clamp. All decay was removed and the tooth was prepared for a buildup and provisional crown. The tooth was etched for 12 seconds with Select HV Etch and copiously irrigated. All-Bond Universal adhesive was applied in two increments, air thinned and light cured for 20 seconds.



**Figure 3**—The tooth was rebuilt using Core-Flo DC. Upon placement, the material was light cured and then left for 5 minutes to achieve complete chemical cure.



**Figure 4**—The tooth was prepared for a full-coverage porcelain restoration because of the extent of fracture. Adequate ferrule was maintained circumferentially around the tooth.



**Figure 5**—The patient was dismissed with a provisional crown cemented with TheraCem. Following comprehensive orthodontic treatment, the patient will move forward with a final restorative plan.

# Additional Resources

## The reviews are in

Here's what our evaluators had to say about Core-Flo DC and Core-Flo DC Lite: