



Composite Shell Overlay Technique for Exceptional Provisionalization

Indications, Materials, and Benefits

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One of the most common issues that I've encountered throughout the years when working with provisionalization cases is incorrect positioning. I would make a stent, go on to create my provisionals, and then I would insert my stent either too far, not far enough, or too facial or lingual, thus routinely positioning my provisionals incorrectly.

The composite shell overlay technique saves an enormous amount of time while providing consistent predictability for easy and aesthetically superior provisionalization cases.

Case Example #1

Patient presents with an edentulous upper arch. The treatment plan is to crown tooth #s 6-11.

After I create a precise diagnostic wax-up, I make a siltex stent of the wax-up and then add a very thin layer of a flowable resin composite such as LuxaFlow (DMG America) on the facial, incisal and lingual parts of the stent where it's very thin.

I cure it, and then tease the composite out of the stent.

Trim the margins so that it seats passably to just the right position.

I then fill it with durable, long-lasting Luxatemp composite material (DMG America).

Once the restoration is seated, I can then reposition it again.

Let the margins and materials harden, remove, trim the margins, then polish. I now have something that has an ideal position, and I can fabricate much quicker.

Case Example #2

Patient presents with very short and worn tooth #s 22-27. Our treatment of choice is composite bonding. In the past, I would prep by etching, priming, bonding, and then attempting to create shapes of the teeth by hand.



I'll now use the same technique as our first case where I'll do a wax-up, make our siltex stent, apply a thin layer of LuxaFlow, and create a shell from composite.

The margins are trimmed, and it's passably situated where I want it.

I then fill it with more of the LuxaFlow visceral material. It's seated, and then bonded into place.

You can build up entire incisal edges in a matter of minutes because the shape is developed from your diagnostic wax-up. So, whether it's a large case or a single front tooth, we'll build that shell up, fill it with packable composite after we've made the composite shell, etch it, bond, put that to place and then fill the margins with LuxaFlow to define the margins. You build great shapes; the procedure goes so much more quickly and the outcomes tend to look better because you're not free handing.

Conclusion

To be successful with this technique you have to first start with a good diagnosis, and then an excellent diagnostic wax-up so that you have the appropriate stent to make the shell which is the most critical step. The composite shell overlay technique is simply a great alternative that produces a very predictable result in a much quicker time. The aesthetics are simply exquisite, but the real benefit is building the tooth up in a third of the time it takes to freehand these particular cases.