

# How to fabricate a new crown that fits an existing RPD ... without forcing the patient to surrender the partial.

From Nelson Gendusa, D.D.S. – Director of Research



Since resin template provides an accurate clasp reproduction, the ceramist can create the proper crown contour without using the RPD as a guide. The patient doesn't have to function even a single day without the prosthesis.

**W**hen a tooth abutting a partial denture requires crowning, the dentist traditionally picks up the prosthesis in a full-arch transfer impression and sends it to the laboratory. This allows the technician to use the clasps as a guide when creating the crown contour.

For most patients, going dentureless (even for a few days) is unpleasant. Without the prosthesis, mastication may be difficult. If the RPD includes anterior teeth, the patient may spend the period between appointments hiding from the world in mortified seclusion.

The following technique uses a **Blu- Mousse Super-Fast** index to register the clasp-tooth-relationship. This allows the technician or dentist to create an accurate template of the clasp. As a result, the patient never has to surrender the prosthesis.

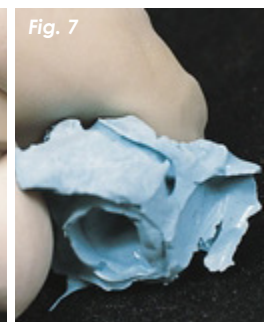
Incidentally, we didn't dream up this technique ourselves. It was contributed by Dr. Allen L. Weiner (Medfield, MA) who also sent the clinical photos (#8-12).\* The laboratory procedures were performed at the Myron J. Dickerman lab (Sharon, MA).

## **PART 1: How to make a clasp/ tooth index using Blu-Mousse® Super-Fast material.**

1. Prepare the tooth for a crown as usual and take the working impression using whatever technique and materials you prefer.
2. Insert the RPD in the mouth and assure that it is properly positioned (Fig. 1).
3. Inject Blu-Mousse Super-Fast over the preparation. Continue expressing material until the clasps and occlusal

rests are completely covered (Fig. 2). Because Blu-Mousse has the fluffy consistency of whipped-cream, it will not flow. Therefore, there is no need to use a confining tray.

4. 30 seconds later remove the RPD with the Blu-Mousse blob attached (Fig. 3). (Notice the impression of the preparation.)
5. Using a blade, carefully trim away the Blu-Mousse until the outer surfaces of the clasps and rests are exposed (Figure 4). Cut away any additional material that prevents the Blu-Mousse index from being removed (Fig. 5).
6. Remove the index from the partial denture by pushing it in an apical direction (Figs. 6 & 7) Temporarily the preparation, and send the patient home wearing the partial denture.



\* Incidentally, we filled in some of the missing illustrations (#1-7) using a typodont. As a result, the case switches from mandibular to maxillary mid-treatment.

## PART 2: How to create a clasp-template using pattern resin

1. Pour the working model and separate the dies as usual.
2. Seat the Blu-Mousse index onto the preparation. Using a Neelon technique (also called “brush-dip” or “salt-and-pepper” technique), flow conventional pattern resin into the impressions of the clasps on the surface of the Blu-Mousse index.

After the impression of the clasps has been filled, extend the resin outward in order to give the template enough bulk to withstand handling. (Note: The only part of the template that must precisely recreate the clasp and rest is the internal surface ... where the clasp metal faces crown.)

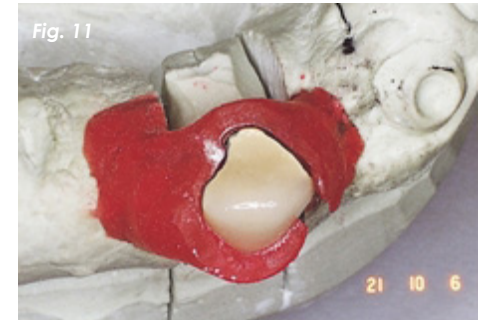
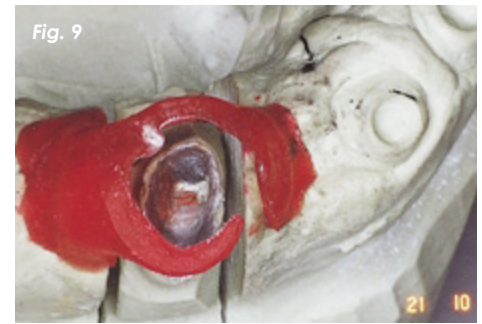
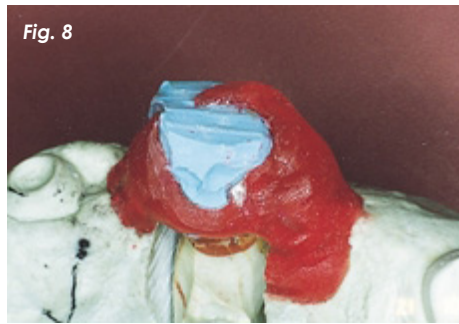
3. Continue building the pattern resin outward until the template sits securely on the model on either side of the index (Fig. 8).
4. After the resin has set, carefully remove the template from the Blu-Mousse. (To avoid damaging the resin, it may be necessary to cut the Blu-Mousse index into pieces.)
5. Replace the template onto the model. (Fig. 9)
6. Use the resin template as a contour-guide during crown fabrication. (Figs. 10 & 11)
7. When the patient presents for crown cementation, the new crown fits the RPD with few (if any) adjustments ... **even though the technician never saw the actual partial denture!**

## SUPER-FAST PROVISIONAL RESTORATIONS

By Michael Fitterling, D.D.S. – Joplin, MO

In some practices the provisional restoration doesn't get the respect it deserves. Granted, elaborate provisional techniques can require substantial chairtime ... and chairtime costs money. And I admit it's tempting to scrimp on a restoration with a functional life of just a couple of weeks.

But if you scrimp on your provisional crowns, both you and your patient may pay the price later. A poorly-fitting temporary restoration may leak ... causing sensitivity (or worse, pulpal complications!) Two weeks of improper contacts



and poor occlusion is plenty of time for teeth to drift or supererupt ... requiring extensive adjustments to the final restoration. If the contour is inaccurate or the margins overbulked, the patient may present at the cementation appointment with puffy, bleeding gingiva.

There are numerous approaches to provisional crown fabrication. (I know. I've tried a good many of them.) In my hands, the following technique produces the most consistent results.

**It's efficient** ... so it doesn't devour massive amounts of precious chairtime.

**It's extremely accurate.** Our restorations normally slide into place with little or no adjustment. The tissue remains healthy.

**And it's easy.** In fact, your assistant could probably do the entire procedure.

1. This patient (Fig. 13) required a crown on a maxillary first molar (#14).
2. Because Blu-Mousse sets so formidably hard, there is no need for a conventional stiff tray.

Prior to preparing the tooth, we cut a rectangular piece from a 3 oz plastic cup (Fig. 14). Then we bend it into the shape of a tray to carry the Blu-Mousse. The tray must be large enough to cover the tooth plus the two proximal teeth.

3. We expressed Blu-Mousse Super-Fast into the carrier (Fig. 15) ...
4. And immediately seated it in the mouth (Fig. 16). Before it sets, Blu-Mousse has the light fluffy consistency of whipped-cream, so there is no tendency for the material to flow out of the tray.
5. The impression was removed after 45 seconds and examined (Fig. 17). If the coronal structure of the tooth was damaged (for example, by a cusp fracture or serious decay), we would restore approximate crown contour by removing Blu-Mousse from the deficient area of the impression using a bur or blade.

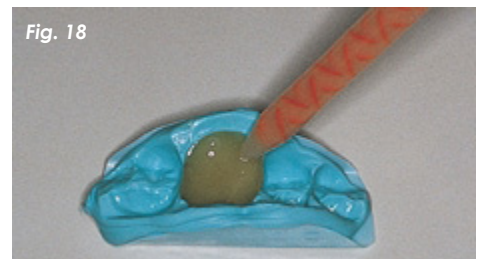
6. After preparing the tooth and taking the C&B impression as usual, we filled the mold in the Blu-Mousse impression 3/4 full with an autopolymerizing provisional crown material (Fig. 18). Then we replaced the impression in the mouth, taking care that it was fully seated.

7. Once the provisional material had set, we removed the Blu-Mousse impression (Fig. 19). The restoration may come off in the impression or (as in this case) it may remain on the tooth.\*

8. We removed the restoration and inspected it for voids or bubbles. (If any were found, we would have repaired them using provisional material.)

The crown was then finished, cemented in place with temporary cement and the occlusion checked (Fig. 20).

We use this same technique for temporizing multiple crowns, inlays and onlays. It's also excellent for bridgework. For example, on a 3-unit bridge, we use light cure composite or sticky wax to tack a denture tooth into the pontic position (either directly in the mouth or on a model). Then we take the Blu-Mousse Super-Fast impression and proceed exactly as described above.



### By the way, Blu-Mousse® also makes a terrific occlusal registration.

As you extrude the Blu-Mousse material directly from your cartridge gun into the mouth, it has the light, fluffy consistency of whipped cream.

It doesn't slump or run. It sits obediently, right where you put it.

And like whipped cream, it offers virtually no resistance to closure. So the patient feels nothing between the teeth as you guide the mandible into centric.

Yet just 30 seconds later\*, this remarkable material has set almost plaster-hard ... creating a distortion-free registration that's tough enough to withstand the rigors of articulation. A registration that maintains its accuracy indefinitely.

We created Blu-Mousse primarily for occlusal registration.

But almost from the day we introduced it, creative dentists like Dr. Weiner have been sending us clinical pictures of exciting new techniques that were difficult-to-impossible before we introduced our Blu-Mousse "Bite Registration Material."

- **The Lamina Impression Technique** - Dr. Gary Schoenrock (Perrysburg, OH)
- **The Preoccluded Registration** - Dr. Robert Weller (Brooklyn, NY)
- **The Trayless Impression** - Dr. Kent Mattison (Snellville, GA)
- **The Trayless Injection Impression** - Dr. Howard Goldstein (Bethlehem, PA)
- **Fast Models for Denture Repair** - Dr. David Winkler (Outrup, Denmark)
- **Cosmetic Feature Registration** - Dr. Thomas Hughes (Monument, CO)

**Classic Blu-Mousse is available in tubes and burst-free cartridges. Super-Fast Blu-Mousse comes in cartridges only.**

- **Blu-Mousse Classic (2-minute set) In**

**Tubes (stock No. S436SM): \$29.95.** Contains 1 tube each Base and Catalyst (total 228 gms).

- **In Cartridges (stock No. S438SM): \$29.95.** Contains 2 Automix cartridges (total 136 gms) plus mixing tips.
- **Blu-Mousse Super-Fast (30-second set) In cartridges (stock No. S457SM): \$29.95.** Contains 2 Automix cartridges (total 136 gms) plus mixing tips.
- **Special Dozen Price: \$26.95.** Order 12 packages and save \$3.00 per package. (You can combine Classic and Super-Fast, Tubes and Cartridges.)
- **Cartridge Gun (stock No. S440SM): \$70.**
- **Vinyl Tray Adhesive (stock No. S446SM): \$8.00 for 10 ml bottle.**

\* Blu-Mousse Super-Fast material sets in just 30-seconds. Blu-Mousse Classic material takes slightly longer ... 2 minutes.

\* If you use a heat-generating provisional material, the impression should be removed after several minutes so the restoration completes curing outside the mouth.