(Worn) Down But Not Out

A conservative composite case that rebuilds dentition after years of damage

by Dr. Terry Shaw

Dr. Terry Shaw practices in Perth-Andover, New Brunswick. He graduated from Dalhousie Dental School in 1976 and has a chronic affection for composite dentistry. Shaw is the continuing education chairperson for the Atlantic Canada Academy of General Dentistry.

Introduction and treatment plan

This 41-year-old female patient came into the office wondering what, if anything, we could do for her teeth. There was a considerable amount of missing tooth structure, and while she explained that it was because of gastroesophageal reflux disease, I suspect that it actually was the result of bulimia.

There was a large discrepancy in the size of her anterior teeth, especially the laterals. My treatment recommendation was to restore the teeth with composite because that would be the most conservative treatment. All of the palatal surfaces were missing lots of enamel, with some surfaces completely missing enamel. The only enamel was around the gingival margins and so, with gingival retraction with my 90N clamp, I could bond to it.

This treatment should buy her in excess of 10 years, in my experience. If there was sufficient wear by that time, this treatment could be repeated.

The patient was very happy with her new smile and hopefully will be able to keep her teeth intact for many years to come.

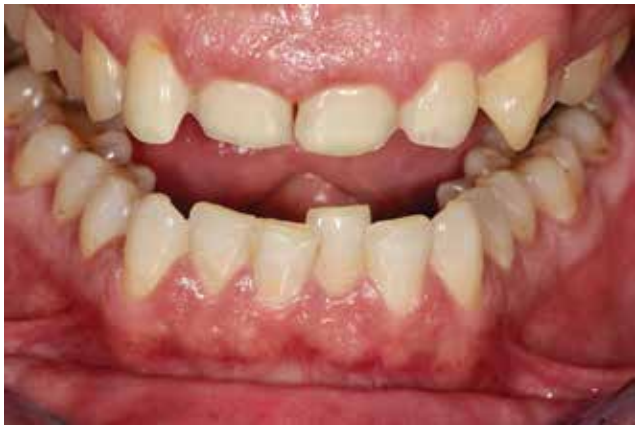

Fig. 1: *It's easy to see the missing tooth structure.*

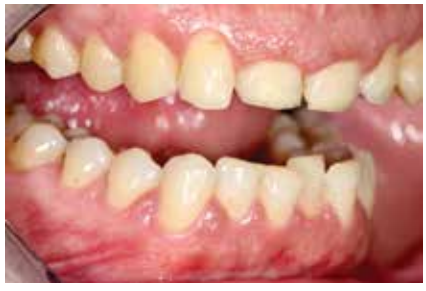

Fig. 2: *Right side.*

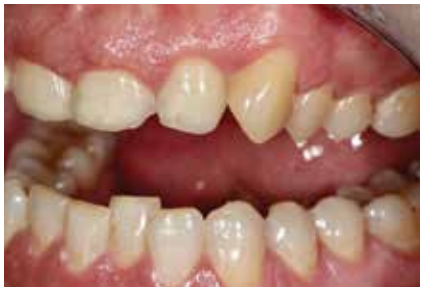

Fig. 3: *Left side.*

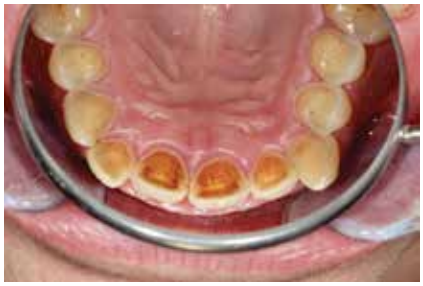

Fig. 4: *Maxillary occlusal view of missing tooth structure, mostly palatal and incisal. Bicuspids are very consistent with bulimia. Buccal tooth structure is intact, although mesial, palatal, distal and occlusal are seriously dissolved away.*

Fig. 5: *Teeth in occlusion and some convenient space available to add composite without opening the bite a lot. This case would be a mini "Dahl Technique," with the posterior teeth open slightly after I added composite to her 10 anterior maxillary teeth #4–#13 (1–5 to 2–5).*

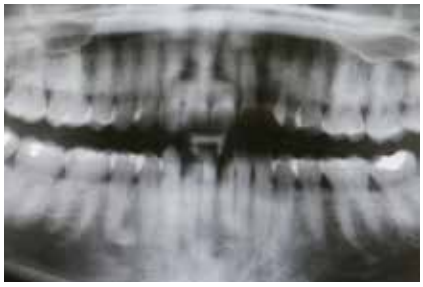

Fig. 6: *Patient's panorex radiograph.*

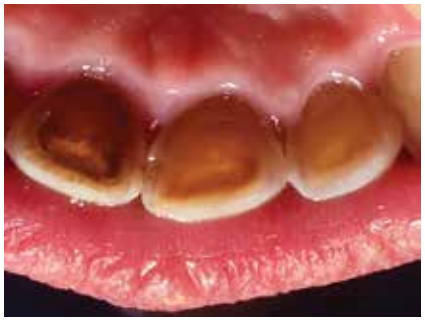

Fig. 7: *The palatal surfaces stained with nicotine, coffee and miscellaneous stuff. I used a sandblaster and nearly two bowls of alumina silica to remove this, but I did all the teeth and all surfaces to clean them. Messy, but it won't remove excess tooth structure.*

Fig. 8: *A Brasseler diamond-impregnated finishing strip used to clean interproximals and reduce the tightness of the contacts. This allows the matrices to get between the teeth easier without tearing them.*

Fig. 9: *90N clamp and a Premier Cure-Thru Matrix surrounding the tooth. It's easy to etch, apply Bond Saver D, prime and apply bonding resin, and also easy to avoid getting any stuff on the adjacent teeth. I then add composite and cure resin at the same time. (This gives more intimate adaptation of the composite interproximally and all around the tooth.) This restoration took three increments: two on the palatal and one for the buccal.*

Fig. 10: *Added composite.*

Fig. 11: *Incisor of right central. Clean palatal surfaces of the adjacent teeth.*

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Be sure to include a sentence that sums up why the case is so special to you, to help us review and select the best contenders for publication.

Products used

- Apex BondSaver D
- Bisco Etch-37 with benzalkonium chloride
- AllBond 2 Bonding System
- 3M Filtec Z250, shade A2
- Premier Cure-Thru Contoured Matrices

This treatment should buy her in excess of 10 years, in my experience. If there was sufficient wear at that time, this treatment could be repeated.

Fig. 12: *Length of central, around 9mm. (Any longer and could have been too much.)*

Fig. 13: *Shaped and polished.*

Fig. 14: *Right first bicuspid with same matrix. Just add composite and cure. Buccal was done freehand—fairly simple.*

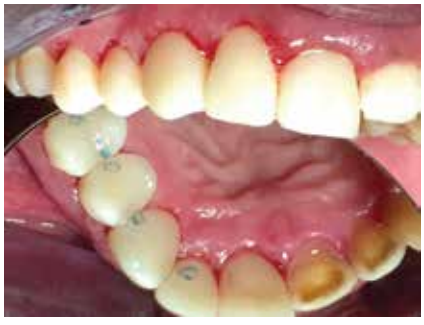

Fig. 15: *Right side finished and shaped and adjusted. Notice no occlusal marks on right central; I added more composite to the palatal to get a contact.*

Fig. 16: *Right central after composite was added. Sandblasted the composite that was previously adjusted, then added more composite to get a contact.*

Fig. 17: *Left first premolar.*

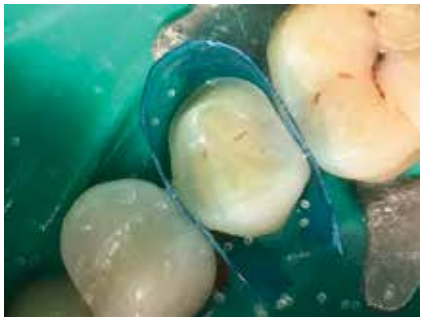

Fig. 18: *Left second premolar (first has been restored).*

Fig. 19: *Occlusal view and contacts with articulating paper.*

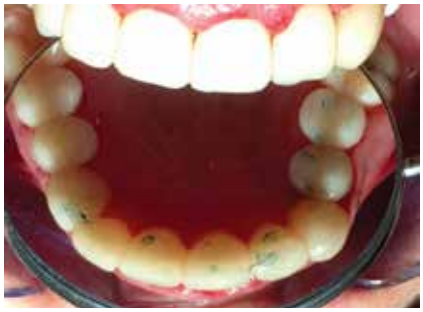

Fig. 20: *Alternate occlusal view.*

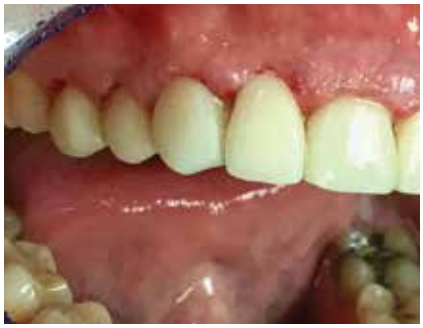

Fig. 21: *Right side polished.*

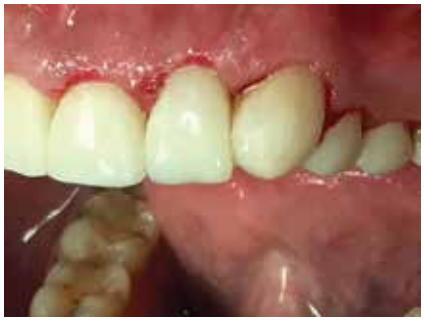

Fig. 22: *Polished left side shaped and adjusted.*

Fig. 23: *Anterior view of restorations.*

Fig. 24: *Patient smiling (beside a window with too much light coming from the right side windows).*

Check out Dr. Terry Shaw's latest CE course!

Head to **dentaltown.com/CE** for a great course from Dr. Terry Shaw: *See What You Can Do with Composite*. Shaw demonstrates some of his tried-and-tested techniques, shows cases where composite was used to significant patient satisfaction, and explains how dentists can get the most out of an everyday material.