

PART 2 OF A SERIES

Answering the Demand for an Everyday Composite Restorative with 3M™ Paradigm™ Nano Hybrid Universal Restorative

Paradigm™ Nano Hybrid Universal Restorative

Your reliable, easy-to-use, everyday restorative.



- Easy to polish
- Excellent for everyday anterior and posterior restorations
- Excellent handling - holds its shape and does not slump
- Excellent strength and wear resistance†
- Easily blends with the surrounding teeth through outstanding chameleon effect.

Introduction to Clinical Cases by Dr Clarence Tam

This vivid, everyday clinical case demonstrates the versatility and ease of building naturomimetic direct composite restorations using a smart composite such as Paradigm™ Nano Hybrid Universal Restorative by 3M ESPE Dental.

I elected to use Paradigm™ Nano Hybrid Universal Restorative in the series for both functional and aesthetic reasons. Functionally, the material exhibits a compressive strength of approximately 385MPa, which mimics enamel's compressive strength at 384MPa very closely (dentine's compressive strength is 297MPa).

The flexural strength of dentine is 165.6MPa, and Paradigm™ Nano Hybrid Universal Restorative is an extremely close match at approximately 158MPa. The very low polymerisation contraction of 1.7% falls within my acceptable limit of <1.8%. The combination of a hard-to-beat chameleon effect as well as physical prowess makes this 'supercomposite' a one-stop wonder for Class IIIs, Vs and posterior multi-surface restorations in general. Its ease of polishing is a pleasure.

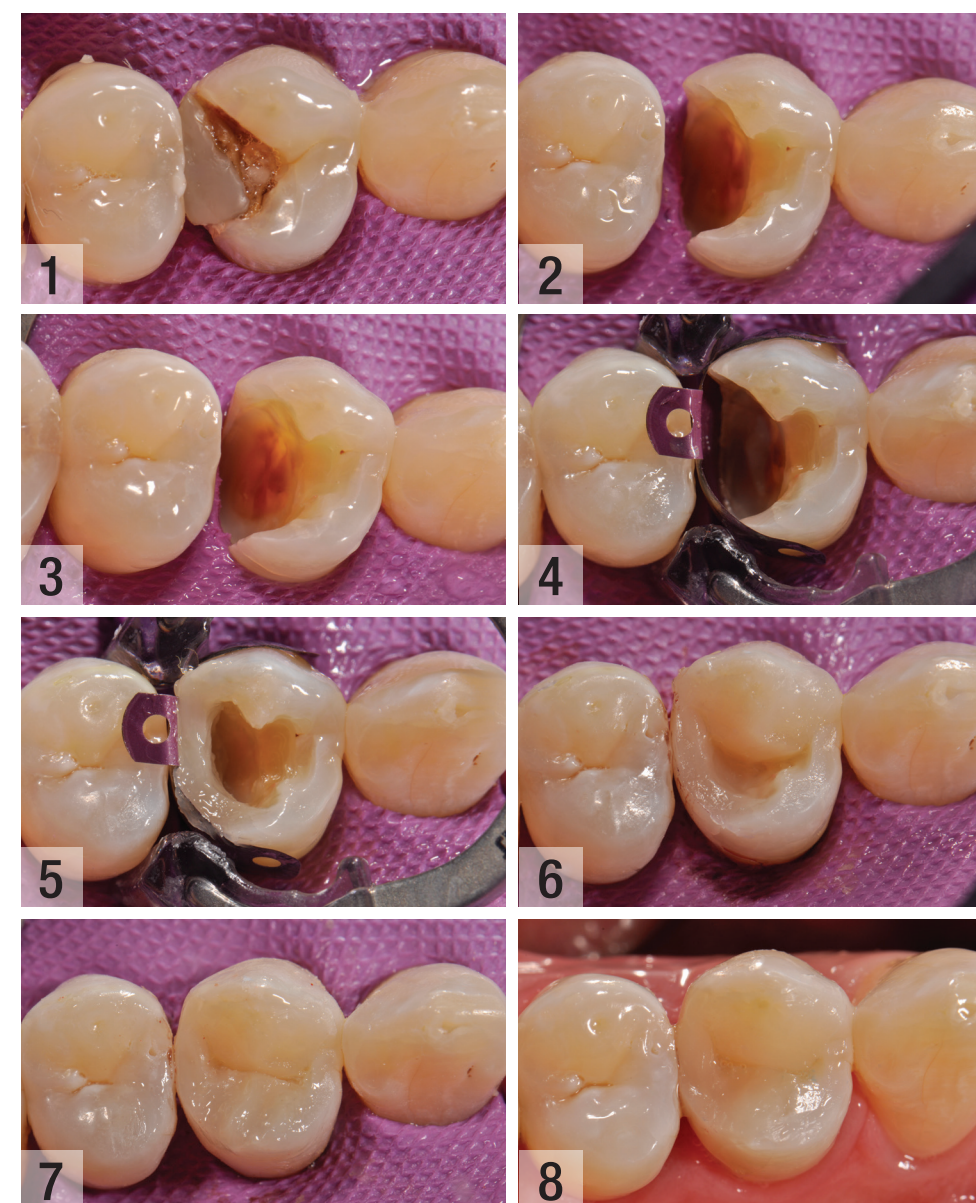
Before and After shots:



Pre and Post-op

Pre and Post-op X-Rays

Caries removal and restoring a deep D0 with Paradigm™



This patient presented with a fractured and de-bonded old restoration with recurrent caries extending deeply both pulpally and gingivally (Fig 1). The risks of endodontic treatment and crown lengthening were explained to the patient. After isolation, the tooth was prepared, caries was removed and a three-part caries detector wash protocol applied (three separate applications with interspersed excavation sessions) (Fig 2).

Blushing was noted but there was no frank pulpal exposure. After a one minute soak with 2% Chlorhexidine, the dentine was left moist and Theralcal LC®* (resin-modified calcium silicate) was placed against the pulpoaxial wall. (Figs 3 & 4).

The tooth was restored in its entirety using a single shade of Paradigm™ in A2 shade. This material exhibits a beautiful chameleon effect and the fissures were gently characterised using Creative Color™ - Honey Yellow.

Interproximal line angle flash was minimised via the use of the V4 Sectional Matrix System*** (Figs 4-8).



Dr. Clarence Tam, HBSc, DDS
Cosmetic and General Dentistry

Clarence is originally from Toronto, Canada, where she completed her doctor of dental surgery and general practice residency at the University of Western Ontario and the University of Toronto, respectively. She is well-published to both the local and international dental press, writing articles, reviewing and developing prototype products and techniques in clinical dentistry. She frequently and continually lectures throughout New Zealand and Australia. Clarence is the chairperson of the New Zealand Academy of Cosmetic Dentistry. She is an accreditation candidate and sustaining member of the American Academy of Cosmetic Dentistry and seeks to be the first in New Zealand and Australia to gain accredited status with them. Clarence is a product evaluator for a number of dental companies including Henry Schein Dental, 3M ESPE Dental, Kuraray-Morita, GC Australasia, SDI, Coltene-Whaledent, Dentsply/Trident/Rhondium and a Voco fellow in Australasia. Clarence maintains a private practice limited to cosmetic and restorative dentistry in Newmarket, Auckland.

3M ESPE Dental

3M Australia Pty Limited
Building A, 1 Rivett Rd
North Ryde NSW 2113
1300 363 878
www.3MESPE.com.au

3M New Zealand Limited
94 Apollo Drive
Rosedale, Auckland 0632
Ph: 0800 80 81 82
www.3MESPE.co.nz

† Data on file * Theralcal LC is a Bisco product. **Creative Color is a Cosmodent product. *** V4 Sectional Matrix System is a Trident/Dentsply product.
3M, ESPE, Paradigm and Sof-Lex are trademarks of 3M or 3M ESPE. All other trademarks are owned by other companies. PB7351/0515

