

Composite Restorations

Procedure/Study by

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Composi-Tight™ 3D 



Composite Restorations

By Dr Michael Mandikos, BDS, MS (New York), Cert Pros, FRACDS, FICD

Dr. Mandikos is a registered specialist in prosthodontics. He received his Bachelor of Dental Science Degree with honors from the University of Queensland, and in 1998 he completed a three-year residency program at the University of New York in Buffalo (USA), graduating with a Certificate in Prosthodontics and Masters Degree in Biomaterials. His research was in composite resin materials, and he has published several research papers in Australian and international journals on clinical and dental materials topics, as well as many clinical technique articles in local dental magazines. Dr. Mandikos was admitted as a Fellow of The Royal Australasian College of Dental Surgeons in 2000, after receiving the Sutherland Prize for the highest examination pass that year.

Aside from his private practice, Dr Mandikos is a Visiting Specialist Prosthodontist at the University of Queensland Dental School, and formerly at the Royal Australian Air Force. He is also a Specialist Clinical Associate at the University of Sydney. He is a reviewer for the *Australian Dental Journal* and *Lasers in Medical Science*, and is on the Editorial Review Boards for *Quintessence International* and *Clinica* (International Journal of Brazilian Dentistry). Dr Mandikos is a product evaluator for several dental companies and he has presented continuing education programs at Dental meetings throughout Australia, Southeast Asia and the USA.



01



02

Figures 1 and 2: The patient presented for a routine checkup; it had been two years since the last examination. Bite-wing radiographs and intra-oral examination revealed caries in the distal of the first premolar and the disto-occlusal pit of the second premolar. The decision was made to restore the teeth with a micro-hybrid posterior composite.



03

Figure 3: A minimally invasive cavity design was used to reach and excavate the caries in both teeth. Rubber dam isolation was applied to prevent contamination during the bonding process.



04

Figure 4: Tight, anatomical contact "zones" (as distinct from thin contact points) are required for the ideal restoration of posterior teeth, to prevent tooth movement and food packing from open and unstable contact points. A Garrison sectional matrix ring was applied to the first premolar to ensure a perfect contact was achieved.

05



Figure 5: The teeth were then restored with an etch and rinse (fourth generation) adhesive, a flowable composite liner, and a microhybrid composite. The burnished Garrison sectional matrix band ensured an excellent "contact zone" that was tight against the second premolar.

06



Figure 6: The final post-operative outcome, following debanding, polishing, and removal of the rubber dam. An excellent anatomical form was achieved in combination with tight, broad contacts.

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