Esthetic replacement of two restorations on mandibular second molar

By Dr. Giuseppe Chiodera, Italy

About the Case
Male patient, 28 years old. The patient came to the office for a routine check-up. The mandibular second molar showed two insufficient fillings (occlusal and buccal) with secondary caries, open margins and occlusal wear. Both restorations needed to be replaced. The patient opted for an esthetic, multi-layer composite restoration for a natural looking outcome.

Challenge
Poor accessibility and visibility of this restoration lead to a variety of clinical challenges such as composite placement and proper light curing.

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Dr. Chiodera graduated from the University of Brescia with a degree in Dentistry. Winner of a scholarship of Kings College University of London in 2004. Dr. Chiodera is an author of articles in various national and international magazines. At the moment he is working in a private practice in Brescia and specialising primarily in conservative dentistry and endodontics.

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Fig. 1: Initial situation: mandibular second molar with restorations require replacement.
Fig. 2: After placement of rubber dam the insufficient fillings were completely removed.
Fig. 3: After selective enamel etching, Single Bond Universal Adhesive was applied.
Fig. 4: Adhesive was cured for 10 seconds with Elipar™ DeepCure-S LED Curing Light after scrubbing and air-drying steps were completed.
Fig. 5: Filtek™ Z350 XT Universal Restorative, shade A3 was used as a liner for easy adaptation.
Fig. 6: Dentin was replaced with incremental placement and curing of Filtek™ Z350 XT Universal Restorative, shade A3B.
Fig. 7: Enamel was replaced with Filtek™ Z350 XT Universal Restorative, shade A3E and light cured. Stains were applied in the fissure.
Fig. 8: The initial finishing was completed with Sof-Lex™ Discs, followed by pre-polishing with Sof-Lex™ Pre-Polishing Spiral and high gloss polish with Sof-Lex™ Diamond Polishing Spiral.
Fig. 9: Final restorations with an excellent esthetic appearance.