

Clinical Case – Deep Cavity Prep #16 (Laser-Only)

Key Attributes: This very deep prep was completed drill-free and anesthesia-free

Procedure by Dr. Josh Weintraub



Pre-Op Radiograph



Post-Op Radiograph



Pre-Op



Prepped



Restored

Case Summary

This procedure was a laser-only prep on tooth #16 MOB, fractured with deep decay. The patient had excellent hygiene and room for third molars, so extraction was not indicated. The clinical objective was to remove caries and then restore the tooth. The total procedure was completed in approximately 12 minutes and did not require the use of a drill and did not require injectable anesthetic.

Technique Using Solea

This case was laser-only and no anesthetic was used. The procedure was performed using the hard and soft tissue selection and 100% mist. To begin, the 1.25 mm spot size with cutting speed between 40% - 60% was used to break through the enamel. Then, for decay removal in dentin, the 1.00 mm spot size was used with cutting speed between 30% - 40%. To smooth the margins, the 1.00 mm & 0.25 mm spot sizes were used with 50% mist. The total procedure, from start to finish, was 12 minutes.

Benefits of Solea

With Solea, the patient did not require any anesthetic. This saves a lot of time because with traditional instruments there would have been at least one injection given and then time spent waiting for anesthetic to set in. Procedure time was reduced from typically 40 minutes compared to 12 minutes with Solea to complete the case. Productivity was increased in several ways. Because local anesthetic was not needed, the occlusion was accurately checked – potentially avoiding a follow-up appointment for a bite adjustment. Eliminating anesthetic also allows the dentist the ability to do multi-quadrant dentistry in the same appointment. Finally, because of Solea's precision and smoothness, the entire preparation was completed without the need for a drill.