PFM Restorations Transform Patient’s Smile

Restoring the smile of a dentist’s relative can be particularly challenging. Here, Luke Kahng, CDT, Owner of LSK121 Oral Prosthetics, Naperville, IL, shares how he transformed the smile of a client’s mother-in-law with two PFM bridges and one PFM crown.

The patient, a 63-year-old female, wanted to replace an old partial and denture in her maxillary arch with an implant-retained bridge. Since she resides in Florida, she had the implants and a temporary denture placed there, but then traveled to Chicago for two weeks so her daughter-in-law, Dr. Linda Arrich, could complete the work for her. The patient, clinician and Luke Kahng, CDT, Owner of LSK121 Oral Prosthetics, met at the lab to discuss material selection, color and esthetics. Because the patient had a strong bite, the dental team decided titanium abutments would work best for the implants. The final restorations would be a fixed seven-unit PFM bridge (#7-13), a two-unit bridge (#5-6) as well as a single PFM crown (#4).

The patient’s smile reveals “piano-type” teeth that are flat, square and not uniform. Both the dentist and her mother-in-law are very happy with the lifelike restorations and the patient reports a newfound confidence in her smile.

Step 1: After impressions were taken and models poured, the UCLA abutments were fabricated by waxing and casting them in metal.

Step 2: At the lab, the abutments were surveyed with a milling machine in order to verify parallelism and proper fit.

Step 3: The bridges were waxed up, cast in precious metal and then tried in and measured horizontally to check the incisal edge positioning. A measurement was recorded with the metal frameworks in the mouth.

Step 4: The porcelain buildsups were layered onto the frameworks using GC Initial MC. Kahng measured from tissue to incisal edge to ensure the restorations were the proper length and contour, and used enamel overlay to decrease the bulk of the teeth. In order to create the gingival areas, he used pink porcelain. To fabricate the single crown, he did a traditional waxup, cast it in metal and then used GC Initial MC porcelain for the buildup.

Step 5: The final restorations.

Step 6: The screw-retained bridges and single crown were placed in her mouth to check fit, then cemented in place.