

Existing Crown Fracture

Restoration with an All-Ceramic Alternative

A DENTIST-LAB RELATIONSHIP THAT WORKS

Dentist:

Edward M. Narcisi DMD
Monroeville, PA

Dental Laboratory:

Jesse & Frichtel Dental Labs

A healthy woman in her mid-40s presented for treatment complaining of a sharp, rough spot on her mandibular right first molar (No. 30). Clinical evaluation confirmed a mesial lingual cusp fracture on the existing crown (porcelain over a milled coping). There was no evidence of decay; gingival tissue was healthy.

I entertained 3 treatment options: full cast gold onlay; porcelain fused to metal (PFM); or an all-ceramic alternative. The final choice needed to be more durable than the existing restoration and be esthetically pleasing. Gold casting did not meet the esthetic criteria. The PFM has a history of marginal darkening and did not meet the long-term esthetic criteria. The third option, a full contour monolithic crown, met both criteria for durability and esthetics. In collaboration with the dental laboratory, it was decided that a Zirlux full-contour crown was the best choice. Since the patient was the wife of one of the lab owners (and sister to the other lab owner) there was a high degree of confidence in the material selected for this patient.

I took pre-op photographs, created a shoulder preparation on the tooth, and took photos of the prep. Vinyl polysiloxane impressions, bite registration, photos, and a prescription for a shade A-1 were sent to Jesse & Frichtel laboratory. I used Luxatemp Ultra (DMG) to make a temporary crown before dismissing the patient with a follow-up appointment for cementation of the new crown.

The completed Zirlux crown was cemented with RelyX (3M ESPE). I checked occlusion and confirmed the absence of excursive interferences. At the 10-day follow-up appointment, I assessed occlusion, gingival tissue response around the crown, and took post-op photos: everything was fine. One-year follow up shows this restoration is holding up beautifully. The patient is quite pleased with the result.

I find that Zirlux has more functional durability in the posterior regions than layered porcelain systems because it is a single milled material. Yet it provides highly translucent characteristics, which can be elusive esthetic qualities in a monolithic crown. Zirlux offered a cost-effective, durable, and esthetic alternative to a PFM. Both the dental ceramist and I like that.

**Jesse & Frichtel
Dental Labs**

With a focus on guidance and education, Jesse & Frichtel Dental Labs offers everything from the newest materials available to the trusted restorations that are created every day.



Sven Jesse has been an outstanding technical resource for the clients of Jesse & Frichtel Dental Labs since 1994.



All abutments are gold anodized at no charge to provide superior aesthetics.

Our Wheelhouse

- Full Service Dental Lab with German MDT's overseeing your cases
- JFZ All-on-4 done with beautiful Zirlux FC2 Milled in 5 axis mode
- Over 8000 successful implant cases done in 2013
- CAD/CAM department includes:
 - Dental Wings
 - 3Shape
 - NobleProceraAble to create patient specific abutments that will not void the manufacturer warranty

Contact Us

1861 Golden Mile Highway
Pittsburgh, Pa 15239
888-868-6684
1054 Summit Drive
Carmel, IN 46032
877-202-7700
www.JesseandFrichtel.com



Figure 1: Mesial-lingual fracture of ceramic crown (porcelain over milled coping) on tooth No. 30.



Figure 2: Completed shoulder preparation of tooth No 30.

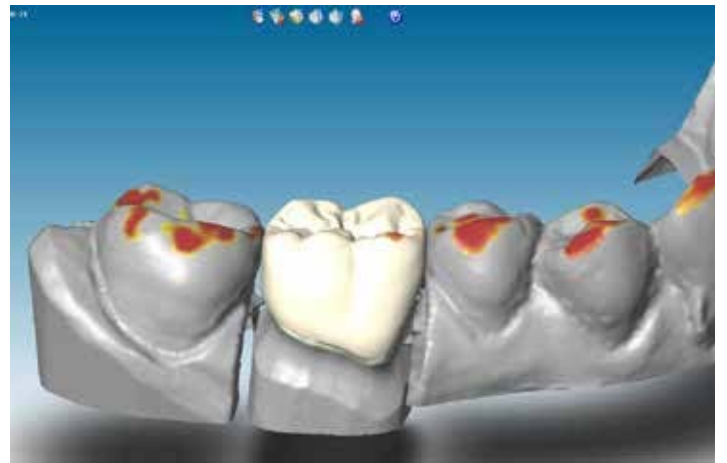


Figure 3: CAD design of the proposed new crown (buccal view).

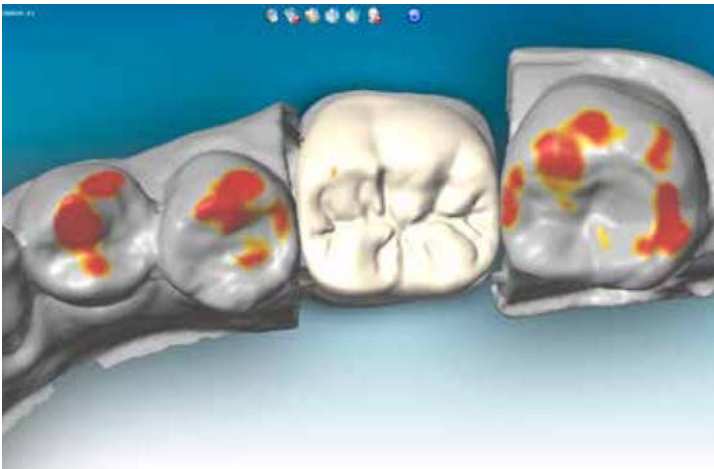


Figure 4: CAD design of the proposed new crown (occlusal view).



Figure 5: Post-operative occlusal view of the Zirlux crown on tooth No. 30.



Figure 6: Post-operative buccal view of the Zirlux crown on tooth No. 30.

GO-TO PRODUCTS USED IN THIS CASE



LUXATEMP ULTRA

Luxatemp Ultra's flexural strength leads to superior stability and long-term durability, especially with multi-unit temporaries. When compared to the original Luxatemp, Luxatemp Ultra offers a faster setting time, improved initial hardness and superior break resistance.



DMG AMERICA
800.869.6301 ext. 14030
www.dps.li/a/4EH-30
Reader Service 030



ZIRLUX FC2

Zirlux FC2 full-contour zirconia offers patients an esthetic all-ceramic alternative to metal restorations that mimic the characterization and translucency of natural teeth. Zirlux zirconia can be prescribed for copings, crowns, bridges, inlays, and onlays.



ZAHN DENTAL COMPANY
800.869.6301 ext. 14026
www.dps.li/a/4EH-26
Reader Service 026



Jesse & Frichtel Dental Labs

where quality and consistency comes together for you

Same Price, Entirely Different Class

Patient Specific Genuine Abutments Now Available at a Stock Price.



\$50 OFF

USE PROMO CODE : DPS50

"No one in the country can or will provide a manufacturer milled, gold anodized abutment at these prices. They do not void the manufacturer's warranty and are the best possible option for your patients. You really have to ask, why would you want to do anything else?"

- Dr. Steven J. Kukunas, Clinical Director, University of Pittsburgh

FEATURING ZIRLUX® FC2!

Because of its pleasing aesthetics, functionality and durability, it is an optimal restorative solution for abutments.



PATIENT-SPECIFIC GENUINE ABUTMENT & CROWN PACKAGES.

Starting at
\$373



Free Product Information Circle Reader Service 007

Call Our Pittsburgh, PA Location: 888-868-6684 • Call Our Carmel, IN Location: 877.202.7700

Visit jesseandfrichtel.com/UPS to download your free UPS shipping labels.