Keating Dental Arts
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Posterior Non-Adhesive Cementation

Often times, it becomes almost impossible to isolate a posterior preparation to a degree that will allow utilizing a “Total-Etch” or “Select-Etch” technique. With the introduction of more durable and higher flexural strength ceramics, it is acceptable to lute these restorations using a less technique-sensitive protocol. These cements include self-etching resin cements, resin ionomer cements, and bioceramic cements. I prefer to use a self-etching resin cement for these restorations due to their relative high translucency, low film thickness, ease of use, dual-cure properties, and some adhesion to dentin and enamel.

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Clinical Director of Education and Technology

Types of restorations
e.max (lithium disilicate) crowns 1.5 mm thick or greater with adequate retention preparations, zirconium-oxide restorations with adequate retention preparations (both monolithic and core supported), and metal-supported restorations

1) Remove provisional

2) Clean preparation with Chlorahexadine pumice

Recommended Product:
- Consepsis Scrub (Ultradent)

3) Try-in restorations using water or glycerin

4) After checking aesthetics and proximal contacts, rinse thoroughly

5) Prepare restoration for bonding

a) If restoration is lithium disilicate (e.max)
- i) Clean internal with phosphoric acid, rinse, and dry
- ii) Apply silane coupling agent for 1 minute

Recommended Products:
- Porcelain Primer (Bisco)
- MonoBond + (Ivoclar)

b) If restoration is zirconium-oxide or metal-based
- i) Clean internal with NaOH2

Recommended Product:
- Ivoclean (Ivoclar)

ii) Place Zirconium-oxide/metal primer on internal surface for 1 minute

Recommended Product:
- Z Prime + (Bisco)

c) Place the dual-cure, self-resin cement on the inside of the restoration

Recommended Products:
- BisCem (Bisco)
- MaxCem Elite (Kerr)
- Unicem 2 (3M)
- MultiLink Automix (Ivoclar)

d) Seat restoration completely using blunt tipped instrument - do not clean up excess

e) “Tack”- using a 2.0 mm light guide in middle of occlusal surface for 5 seconds, away from margins

f) “Wave”- using 8.0 mm or 11.0 mm light guide and “Wave” all margins for a total of 5 seconds

g) Remove excess resin gently using Bard Parker blades, scalers, and explorer

CONTINUED NEXT PAGE >

h) Floss through contacts using waxed dental floss

i) Place glycerin around all margins

Recommended Products:
- DeOx (Ultradent)
- Liquid Strip (Ivoclar)

j) Light polymerize for at least 40 seconds

k) Rinse off glycerin

l) Remove excess cement using scalers, Bard Parker blades, etc

m) Finish margins and adjust occlusion using 15 or 25 µm finishing diamonds

Recommended Product:
- Hornbrook Finishing kit (Brasseler)

n) Finish interproximals with finishing strips

Recommended Product:
- 1954N strip (3M)

o) Polish all margins (that were adjusted) and occlusal surfaces using ceramic polishing points and cups

Recommended Products:
- Hornbrook Lithium disilicate adjusting and polishing kit (DiaShine/VH Technologies)
- Hornbrook Zirconium-oxide adjusting and polishing kit (DiaShine/VH Technologies)
- OptraFine (Ivoclar)

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Cementation Guidelines courtesy of Keating Dental Arts

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