

142ND ANNUAL MEETING

INSESSION

WISCONSIN'S LARGEST DENTAL STUDY CLUB



WISCONSIN DENTAL ASSOCIATION

INSESSION

Wisconsin's Largest Dental Study Club

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SATURDAY, MAY 12, 2012

8:30 TO 11:30 AM

**ADHESIVE DENTISTRY MATERIALS &
TECHNIQUES SIMPLIFIED**

Adhesive Dentistry: Materials & Techniques Simplified

Dr. Jeff Brucia

1 Introduction.

Adhesive dentistry allows the dentist to treat teeth in the most conservative fashion. Restorative materials that are bonded to tooth structure not only replaces missing tooth structure due to decay or trauma, but also strengthens and supports the remaining tooth structure without removing healthy tissue.

2 Building a Top Quality Restorative Dental Practice.

- Image
- Education
- Confidence
- Quality care

A fair fee is that fee which the patient is willing to pay without losing their gratitude and which allows the doctor to do their finest dentistry.

3 Adhesive dentistry

- Understand the limitations of the materials.
- Remove all bacteria.
- Modify the tissue.
- Create a manageable an altered or demineralized zone.
- Keep the dentin moist.
- Lay down a well sealed hybrid layer.
- Place the restoration.

Enamel – 90% Inorganic minerals (Hydroxyapatite), 6% Protein, 4% Water.

Outermost layer of uncut enamel is aprismatic and difficult to bond. Best to roughen with disc or fine diamond bur in unprpepped.

The bond is formed by the interactions of many steps, but is only as strong as its weakest link.

4 Direct Composite Restorations.

Microfils

High Wear Resistance
High Polishability
Flexure

Micro-Hybrids/Nano fill

High Compressive Strength
High Shear Strength
High Cohesive Bond

Clinical Procedures

1. Take dentin shade from gingival 1/3 of the tooth. (A3, A3.5, A4)
2. Rubber dam is high recommended if at all possible.
3. Remove defective restoration and decay. Caries detector.
- 4a. Etch with 37% phos. acid. Split etch technique. 15+ seconds on enamel and 7-10 seconds on dentin. Wash off. Leave moist.
5. Hydrate with wetting agent. Blot dry.
6. Cover all the dentin and enamel with a one bottle system or primer from a multiple bottle system and rub lightly on dentin only for 15 seconds. Lightly air evaporate until movement of fluid stops.
Or –
- 6b. If using a self-etching adhesive, place the etch/ primer on mostly dry dentin, leave on for 30 seconds and air thin until movement of fluid has stopped.
7. Place the adhesive in a thin layer. If using a highly filled bonding agent, thin out with a dry microbrush. Do not air thin filled.
8. Light cure all areas for 20 + seconds. More if deeper.
9. Line the interproximal cavo-surface & pulpal floor with an A1 flowable and light cure for 40 seconds. Keep this very thin.
10. Place the Hybrid composite using the dentin shade. I only use A3 for a nice dentin shade. Cure each 2 mm increment for 40 seconds.
11. Place pit staining to match existing teeth. Cure for 20 seconds.
12. Place translucent microfil to complete your occlusal surface. (420T) Carve the anatomy and burnish margins with a filled resin wetting agent and cure all surfaces for 60+ seconds.
13. Remove the rubber dam, check occlusion, adjust and polish.
14. Isolate with cotton rolls and etch composite surface and occlusal margins for 10 seconds. Wash and dry well.
15. Place the surface sealer, air thin and cure for 30 seconds.

Consideration should always be given to the use of a Glass Ionomer.

Closed Sandwich technique: This technique is used when a glass ionomer is placed in an area where there is no contact with the cavo-surface of the preparation. The material is completely covered with the restorative material. (Base and liners) A liner should be used as a very thin covering over deep and questionable dentin surfaces. A base should be selected anytime the material is placed thicker than

.25 mm and should be a high strength GI restorative material. Tooth conditioning is not required with this technique.

Open Sandwich technique: This technique is used when a Glass ionomer is placed in an area where there is contact with the cavo-surface on the preparation. The margin of the preparation is sealed with the Glass Ionomer material. A restorative GI material should always be used here and the tooth conditioner is indicated.

Class II Open Sandwich: Used when any part of the gingival margin of a Class II preparation has been extended past the CEJ and no longer has an enamel cavo-surface.

1. After placement of the matrix, condition the gingival floor with GI conditioner for 10 seconds and wash off.
2. Place either a pure glass ionomer or a resin modified glass ionomer interprox. to the start of enamel margins. Do not build interproximal or occlusal contact in this material. Make sure that there is a minimum of 2mm of the final restorative material above the Glass Ionomer to support the marginal ridge. Do not over extend.
3. Continue with step 4 with the above composite technique if final material is a composite restoration.

Class V Open Sandwich: Uses when any part of the gingival extension of a Class V restoration extends past the CEJ and no longer has an enamel cavo-surface.

1. Place dry retraction cord and remove all decay. Clean all un-prepped areas to be restored with a pumice mixture.
2. Condition all dentin/cementum surfaces with GI conditioner for 10 seconds and wash off.
3. Cover all dentin and prepped cementum surfaces with a light-cured RMGI material. A nice technique is to extend this material slightly over the gingival tissue for added isolation. Light cure 40 seconds.
4. Bevel enamel surface and clean all GI from the enamel margins.
5. Etch all surfaces with 37% Phos. Acid for 30 seconds.
6. Place a hydrophobic highly filled adhesive over all surfaces and light cure for 20 seconds. Do not air thin.
7. Place restorative material to final contour and light cure. I like microfills here.
8. Contour and finish Glass Ionomer to the composite and to the root structure.

5. Indirect Tooth Colored Bonded Restorations.

Materials used by the presenter.

BelleGlass: Heat/pressure cured microhybrid.

Sinfony: Heat/light cured microhybrid.

IPS Empress I & II: Leucite-reinforced glass ceramic.

IPS d.sign: Leucite-reinforced stacked ceramic.

Lava: Zirconia milled core with ceramic build-up.

eMax: Lithium disilicate pressed ceramic system.

Clinical Procedures.

1. Shades should be taken prior to starting the work.
Communication with the lab is the key to great results.
2. Preparation of the teeth.
 - 1.5 pulpal reduction.
 - 2.0 cusp reduction.
 - Rounded internal line angles.
 - 10 - 15 degree divergent walls.
 - 90 or slightly over for all angles of exit.
 - Shoulder or deep chamfer margins.
3. Undercuts should be blocked out using a RMGI or comp. See direct composite placement.
4. Impressions and bite registration. Delar wax for bite reg.
5. Temporization using a light or self cured direct or indirect resin.

Margin Elevation Technique

Can be used if a small area of the preparation has extended to any area that may make isolation for the cementation difficult. Example would be an interproximal area that still has enamel remaining.

1. Isolate area as best as you can and place convex matrix band around tooth. If a wedge is needed to seal gingival area, custom fit to not interfere with emerging profile.
2. Clean areas well and place high quality bonding agent using H3PO4 if indicated. Cure well.
3. Place high strength composite and cure well.
4. Shape area to make your final margin.

Immediate Dentinal Seal

Used to seal all dentin exposed in the preparation at the time when the dentin is freshly cut. Should always be done before impression is taken.

1. Isolate area as best as you can.
2. Clean areas well and place high quality bonding agent using H3PO4 if indicated. I prefer a filled adhesive for this technique. Cure well.
3. Place a glycerol gel over all and cure again to remove uncured layer.
4. Freshen all enamel margins with a fine diamond.

Centric Occlusion Restorative Procedures

Patient care

1. Full mouth impressions with mandibular closed as much as possible.
2. Wax bite (Delar) only where clearance allows with patient biting completely together in centric occlusion.
3. Ear bow for the semi-adjustable articulator selected.
4. Record in chart all teeth that hold shim stock.
5. Fabricate a temporary with interproximal contacts and in occlusion.

Laboratory care

6. Pour solid upper and lower models in model stone. Use split cast for upper if you are not using magnetic mounting plates. Mix all model stone in vacuum mixer.
7. Carefully examine models and remove all bubbles in pit and fissure area.
8. Set up and mount upper model with ear bow and snow white #2 stone.
9. Try wax bite on both models and trim so no wax is contacting tissue.
10. Stabilize mandibular model and wax bite to maxillary model.
11. Check mounting with split cast. Remount if this does not check.
12. Using shim stock, check occlusal holding points. If it matches the interoral records, you are good to go. If not, mark with indicator spray and equilibrate until it matches. Be careful not to over equilibrate. If there is a question, less is better than more.
13. Send mounted models and articulator to lab with preparation impression.
14. When case returns, place restoration on die model and check margins.
15. Now place restoration on solid mounted model and check interproximal contacts and occlusion. All teeth that contact should match your intraoral records. If not adjust, polish and re-glaze if indicated.
16. You are ready for the easiest cementation procedure ever!
18. If metal restoration, cement with glass ionomer cement. If non-metal restoration, bond with resin cement.

Cementation. (Inlays, Onlays, Crowns & Bridges.) using Scotchbond MP + Very important test. – Mix your dual cured cement on a pad and now mix a small amount of the SBMP Catalyst and make sure it does not snap set. If so, follow #11 & #12 below exactly.

1. Remove temporary.
2. Place the rubber dam. Kavo scaler removes Duralon nicely.
3. Clean prep with chlorahexidine.
4. Try in and check margins, interproximal contacts and adjust.
5. Prepare restoration for adhesion. Refer to section 6 below.
6. Place Teflon tape to cover the adjacent teeth and protect from etch.
7. Etch with 30% -40% phos. acid. Split etch technique. 15 + seconds on enamel and 10 seconds on dentin. Wash off. Leave moist.
9. Hydrate with wetting agent. Consepsis or Gluma. Blot dry.

9. Place a thin layer of the **Activator** to the entire prep. Air thin 5 sec.
10. Place the dentin **Primer** using several layers. Allow to saturate for 15 seconds. Lightly air evaporate until movement of fluid stops. Light assist 20 s. Look for the shiny appearance.
11. Apply a thin layer of **Catalyst** to entire preparation only. **Do not place Catalyst on restoration. Do not light cure!!!!**
12. Mix and place dual cure composite cement **in/on the restoration only.**
13. Seat restoration and maintain pressure while cleaning as much of the cement as possible. Spot cure on the occlusal with 2mm light to tack down. Clean interproximally with explorer or superfloss.
14. Place glycerin over all margins prior to final cure.
15. Cure for 1 minute from each surface.
16. Remove the rubber dam, check occlusion, adjust and polish with polishing points. Open contacts with separating disc.
17. Isolate with cotton rolls and etch surface of resin restorations or margins of ceramic restorations for 10 seconds. Wash and dry well. Place the surface sealer, air thin and cure for 30 seconds.

Important additional noted to the above.

In my testings, All Bond 3 and OptiBond FL are also excellent choices for indirect adhesives. All Bond 3 can be thinned enough to light cure prior to placing the restoration and OptiBond FL works great when using immediate dentinal seal and light may get to all areas of the prep interface.

Cementation for IDS technique.

All areas of the preparation restoration interface should be in areas that light may reach.

1. Clean cement well. Sand blasting with 30-50 micron alumina works best.
2. H3PO4 etching for 30 seconds. All dentin has already been sealed.
3. Dry very well.
4. Place filled adhesive. Do not cure.
5. Place warmed composite or dual cured cement with restoration and cure 60 seconds from every surface.

Re-attachment of tooth. Used with a 4th generation bonding kit.

1. Keep tooth fragment wet at all times. If patient did not keep wet, place in distilled water for 15+ minutes prior to starting.
2. Place the rubber dam.
3. Clean prep with chlorahexidine rinse.
4. Try-in for a passive fit and evaluate fit for missing fragments.
5. If large areas are missing, will also need a high strength comp.

6. Etch all tooth structure (both fragment and intra-oral area) with 30% -40% phos. acid. Split etch technique. 15+ seconds on enamel and 7-10 seconds on dentin. Wash off. Leave moist.
7. Hydrate with wetting agent. Blot dry.
8. **If large and deep piece, follow the above technique for inlays.
9. If small - place the dentin primer using several layers on both areas. Allow to saturate for 15 seconds. Lightly air evaporate until movement of fluid stops. Light assist 10 s.
10. Place a filled bonding agent on both pieces and thin with a dry brush. Make sure to cover all surfaces. Composite for missing areas.
11. Seat tooth fragment and maintain pressure while cleaning as much of the cement as possible. Clean interproximally with explorer or rubber tip.
12. Place glycerin over all margins prior to final cure.
13. Cure for 1 minute from each surface.
14. Remove the rubber dam, check occlusion, adjust and polish with polishing points. If you can see the fracture line, prep a chamfer over the line and place a direct composite to cover area.

Indirect composite (BelleGlass, Sinfony)

1. Sandblast with Co-Jet for 10 seconds.
2. 37% Phosphoric acid for 15 seconds. Ultrasonic Bath with Ethanol.
3. 2 applications of Silane coupling agent for 60 sec each and dry.
4. Warm dry with AdDent warmer or blow dryer for 5 min.

Porcelain (Already sandblasted and etched at lab with hydrofluoric acid).

1. Do not place on stone dye yet.
2. Etch with 37% Phos. Acid for 15 seconds.
3. Ultrasonic bath with distilled water 4 minutes and dry well.
4. Silane coupling agent for 60 seconds X 2 followed by heat dry.
5. Try-in on dye and tooth.
6. Phos acid 15 seconds and Ultrasonic with distilled water 4 minutes and dry well.

Porcelain (Only Sandblasted in lab). **Ideal treatment.**

1. Try-in on dye and tooth.
2. HFL with recommended strength and time from manf. If unsure – 90 seconds with 9.6% Buffered HF acid. **Not for Lith Dical – 20 sec.**
3. Etch with 37% Phos. Acid for 15 seconds. Distilled water and ultrasonic bath 4 minutes.
4. Silane coupling agent for 60 seconds X 2 and heat dry.

7 Porcelain Veneer Preparation.

1. Diagnostic wax-up.
 - Know where you are going. Final length & general shape.
 - Make putty impressions for reduction guides. Look at incisal and axial reductions.
2. Depth cuts.
 - Three plane reduction.
 - More reduction at body of tooth (0.5mm -1.0mm).
 - Less at gingival finish line (0.3mm)
3. Facial reduction.
 - Maintain contour of finished restoration.
 - Keep margins 1.0mm supra-gingival at this point.
4. Retraction.
5. Interproximal elbow.
6. Finish and smooth facial finish lines.
 - Lower 0.5mm.
7. Incisal reduction.
 - 1.5mm - 2.0mm below determined length of the completed restoration depending on amount of translucency desired.
8. Lingual finish lines. -Better to wrap over incisal edge, but do not create a chamfer. A butt joint introduced much less stress to the porcelain.
9. Remove any remaining old restorations.
 - Block out any undercuts with a hybrid composite.
10. Open contacts.
11. Round all angles.
12. Clean preparations and take full arch impressions.
13. Good communication with the lab is critical. Color mapping, stump shade, final length, smile design, canting, occlusal notes and photos. Earbow parallel to eye level and photo is very helpful for cant. Face smile guide may be used here very well.

8 Veneer Cementation

1. Confirm fit, shape, length, desired shade and occlusion on the articulated model work.
2. Anesthetize patient, remove temporaries and clean off all remaining cement with instruments and a cleaning paste.
3. Try in each restoration individually with water to confirm fit.
4. Use a clear try-in paste and seat all together. Start with #8 and #9 then follow the same placement sequence as you will use for final cementation. Adjust contacts if needed at this point.
5. If only slight color modification is required on one or more restorations, try a colored try-in paste at this time.
6. Seat patient up to verify cant and overall appearance of the restorations. When you are pleased, walk patient to a full face

- wall mounted mirror with adequate light to view the new smile. Address major concerns now leaving only minor contour changes for post cementation adjustment.
7. Remove the restorations and place back on the model work for tooth identification. Each tooth should be washed with water, dried and a labelled carrying stick attached.
 8. Check the light intensity for a minimum of 650 mw/cm². Clean probe or replace bulb if indicated.
 9. See above for porcelain treatment.
 10. Isolate teeth with a rubber dam and bite registration paste. Control any areas of fluid contamination.
 11. Etch 2 teeth at a time with 35% phosphoric acid and rinse.
 12. Apply a wetting agent with a microbrush and blot off excess.
 13. Apply the primer material to the teeth, allow to saturate for 15 seconds, dry with clean light air and light evaporate 10 sec each.
 14. Place Teflon tape around #7 and #10 to isolate.
 15. While Dr. is completing step #13, assistant should be placing solvent free adhesive and base only cement or hybrid comp on #8 and #9. Dr places solvent free adhesive on teeth.
 16. Place restorations on #8 and #9, being careful to remove excess material from around the margins. While applying axial and apical pressure, spot tack the gingival margin for 10 seconds with a 2mm light probe. Clean and cure for 60 seconds all surfaces.
 17. Remove tape on #7 and clean any cement from distal #8.
 18. Place #7 and #6 at this time using same technique.
 19. Remove tape #10 and place #10 and #11 at this time again with same technique.
 20. Remove any observed cement with a rubber tip and super floss and place glycerol gel on all margins and cure all margins again.
 21. Clean all excess cured resin with a #12 BP and finishing burs.
 22. Check and adjust occlusion for cuspid guidance in lateral movements, balanced lateral and central guidance in protrusive movements and shim stock clearance in centric position.
 23. Without great force, check interproximal contacts for cement. If excess is detected, try a ProxiDisc, interproximal saw or finishing strips. I will not apply too much pressure here. If a contact is frozen, do not force it, send patient home and check at 1 week follow-up.
 24. Polish all margins with finishing and polishing points.
 25. Sit patient up and contour any teeth for desired appearance.
 26. Set up follow-up check in 1-2 weeks.

9. Porcelain repair (no tooth structure exposed)

1. Pick base shade with mock build-up and cure.
2. Fabricate lingual putty matrix if indicated.
3. Isolation with a rubber dam.
4. Remove mock build-up and place a 2mm bevel 360 around porcelain fracture.
5. Protect all glazed porcelain with opaldam. (Ultradent)
6. Micro-etch all exposed porcelain and metal with co-jet spray for 10 seconds.
7. Cover metal with opaldam to protect from acid exposure. Etch all exposed porcelain with 9% buffered HFL acid for 90 seconds.
8. Wash well and scrub area with 37% H₃PO₄ for 15 seconds.
8. Remove all opal dam and wash area well.
9. Dry with warm air from blow dryer.
10. Place 2 coats of fresh silane. Each coat should be 1 layer with a 1 minute waiting time followed by soft air dry. After last layer and waiting period, dry with warm air from the blow dryer for 60 seconds.
11. Place 1 coat of a filled solvent-free adhesive over all the etched porcelain and metal and light cure for 20 seconds.
13. Place metal opaquer over all exposed metal and light cure.
14. If opaquer was used, I like to place another layer of filled adhesive and light cure.
15. Using the putty matrix, layer the composite for the desired esthetic result.

Fracured porcelain repair (tooth structure exposed) If you are going to use HFL acid, it can not come in contact with enamel or dentin.

1. Isolate area well with rubber dam.
2. Etch tooth structure with 37% Phos. Acid for indicated time.
Dentin: 7-10 seconds. Enamel 15-30 seconds.
3. Place dentin primer over exposed dentin. OK to get on enamel.
Air evaporate and light cure.
4. Place adhesive over all dentin and enamel and light cure.
5. Bevel and smooth porcelain as above. Make sure to remove any cured adhesive from the porcelain when you bevel the surface.
6. Go to step 5 and continue as written above. You can now HFL etch over the tooth structure because you have protected it with the filled adhesive.

11. Tissue Predictability.

The effect of the distance from the contact point to the crest of bone on the presence or absence of the interproximal dental papilla. Tarnow, Magner, Fletcher. J Perio 1992; 63 (12): 995-996.

	<u>Bone to contact.</u>	<u>Complete Papilla.</u>
Tooth -	5mm or less	100%
Tooth	6mm	56%
	7mm	27%

The inter-proximal height of bone: a guidepost to esthetic strategies and soft tissue contours in anterior tooth replacement. Salama H, Salama MA, Garber DA, Adar P. 1998 Practical Periodontics and Aesthetic Dentistry.

<u>Restorative Environment</u>	<u>Proximity Limitation</u>	<u>Vertical Soft Tissue Expectation</u>
Tooth- Pontic	N/A	6.5mm
Tooth- Implant	1.5mm	4.5mm
Pontic- Pontic	N/A	6mm
Implant- Pontic	N/A	5.5mm
Implant- Implant	3mm	3.5mm

11. Anterior implant protocol.

1. Start with the fabrication of a one-piece screw retained temporary crown. Always avoid a cement junction around implants when possible. Adjust emergence profile from fixture level to contact point for ideal tissue shape.
2. Allow tissue stability around the temp for 3-6 months prior to final abutment and crown fabrication.
3. Remove temporary crown and attach lab analog.

4. Submerge this into an impression material past the area of interproximal contact on the crown. May want to secure the analog with composite as first layer before impression material.
5. Unscrew the temporary crown from the analog and attach an open tray fixture level impression coping. Image to check seat.
6. Inject self-cure composite around impression coping up to level of impression material.
7. Unscrew from impression, place in mouth, image for seat and capture open tray full arch impression.
8. Unscrew from mouth, attach lab analog and pour up for the fabrication of a custom abutment.
9. When making and checking the complete abutment, confirm good fit with no space between the stone and material.
10. Try in abutment and adjust margins so that they are approx. 1mm sub-gingival and follow the contour of the tissue. Sound to bone for location of contact in relationship to margins.
11. If comfortable with tissue stability, replace temporary abutment and send final abutment to lab for fabrication of final crown.

12. Dental Materials

Multiple Bottle Systems

- All Bond II & III(Bisco)
- Optibond FL(Kerr)*
- Scotchbond Multipurpose Plus (3M)*
- PermaQuik (Ultradent)*

Single Bottle Systems

- MPA (Clinicians Choice)
- OptibondSolo Plus(Kerr)
- PQ-1 (Ultradent)*
- OneStep plus (Bisco)
- Prime & Bond (Caulk)

Hybrid Composites

- Z100 (3M)*
- Venus (Heraeus Kulzer)
- Filtek Supreme Plus(3M)*
- Gradia (GC America)*
- Herculite (Kerr)*
- Vitaescence(Ultradent)*

Flowable Composites

- Heliomolar Flow (I-Vivadent)*
- Perma Flow (UltraDent)*

Bactericidal Agents

- Consepsis (Ultradent)*
- G5 (Clinicians Choice)*

Self-etch Adhesive

- Clearfil SE (Kuraray)*
- OptiBond XTR(Kerr)*
- Peak SE (Ultradent)*
- Surpass (Apex)
- All Bond SE (Bisco)*

Microfil Composites

- Durafil VS (H K)
- Heliomolar RO (I V)*
- Renamel(Cosmodent)*
- Matrix (Discus)

Composite Stains

- Tetric Color (I V)*
- Kolor Plus (Kerr)*

Glycerin Gel

- De-Ox (Ultradent)*
- Liquid Strip (I V)*

- SuperSeal (Pheonix Dental)
- Gluma Desensitizer (Heraeus Kulzer)
- UltraCid F(Ultradent)*
- Tubulicid Red (Global)*
- Sodium Hypochlorite 5.25%*

Fiber Systems (Direct)

- Ribbond (Ribbond, Inc.)*
- Connect (Kerr)*

Resin Cement Systems

- Variolink II (Ivoclar-Vivadent)*
- Nexus (Kerr)*
- Panavia 21 TC (J. Morita)*
- RelyX (3M)
- Insure (Cosmodent)
- Duolink(Bisco)*

Provisional Material

- Systemp (Ivoclar-Vivadent)*
- Systemp-N (Ivoclar-Vivadent)*
- Integrity (Caulk)*
- Luxatemp (Zenith)*
- TemPhase (Kerr)*

Polishing points

- Astropol (Ivoclar-Vivadent)*
- Enhance & PoGo(Caulk)*
- Diacomp & Dialite (Brassler)*
- Jiffy points & Brushes (Ultradent)*

Polishing paste

- Composite Paste (Ultradent)*
- Proxylt (Ivoclar-Vivadent)*
- Luminescence (Premier)*
- Renamelize (Cosmodent)*

C&B Cements

- Vitremer (3M)
- Fuji Plus (GC America)*
- Fuji 1 (GC America)*

Etching Material

- GelEtch 35% (Temrex)
- Gel Etchant 37.5% (Kerr)*
- Ultra-Etch 35% (Ultradent)*
- Total Etch 37% (Ivoclar-Vivadent)*

Matrix System

- Palodent Sectional Matrix with Bi Tine Ring (Darway)*

Caries Detector

- Seek (Ultradent)*

Temporary Cements

- Duralon (ESPE)*
- UltraTemp (Ultradent)*
- Neo-Temp (Teledyne)*
- Fuji Temp (GC)*

Indirect Pulp Capping

- Fuji IX Ex(GCAmerica)*
- Fuji liner (GC America)*
- FujiIILC(GCAmerica)*
- Triage (GC America)*

Post Systems

- Unicore (Ultradent)*
- C-Post (Bisco)*
- Ribbond (Ribbond)*
- FibreKor (Jeneric P)
- Vectris (Micro Select)

Composite Sealant

- OptiGuard (Kerr)*
- PermaSeal(Ultradent)*
- Fortify (Bisco)

Rubber Dam Supplies

- OpalDam (Ultradent)*
- Wedjets (Hygenic)*
- Rubberdam (Hygenic)*

Finishing Disc

- Softflex(3M)*
- PolishingWheel(Ultradent)*

Silane

- UltraSil (UltraDent)
- Bis-Silane (Bisco)*

High Tec

- DIAGNOdent*(Kavo)
- Electric handpiece*
(Brasseler & Kavo)
- ShadeVision (X-Rite)*

- Composi-Tight Gold & Flexiwedge* (GDS) (888) 437-0032
- Convexi-T (Clinicians Choice)*

Liners

- Fuji liner (GC America)*
- VitreBond Plus (3M/ESPE)*

Bases/restorative material

- Fuji IX Extra & Fuji II LC(GC America)*
- Ketac Molar Fast set & Photac Fil (3M/ESPE)*
- Ionofil Molar & Ionolux (Voco)*
- Riva Selfcure HV & Riva Light Cure HV (SDI)*

Desensitizer

- Gluma Desensitizers (Heraeus Kulzer)*
- Super Seal (Phoenix Dental)* (810) 750-2328
- Hemaseal & Cide (800) 388-6319

Impression Material

- Cadco (Great Lakes)* Aquasil Ultra(Caulk)*
- Impregum Soft (ESPE)* Multiprep (Clinicians Choice)

Direct pulp capping

- Dycal (Kerr)*
- Biodentine (Septodont)
- Proroot MTA(Dentsply)
- TheraCal(Bisco)*

Temporary Matrix

- Wax Buttons (Advantage Dental Products, Inc)* (800) 388-6319

Burs

- Brasseler Brucia bur kit.*
- Preparation Diamonds (Brasseler)*
845KR-018, 10839-31-016, 849L-009, 330D, 6847K-016,
701D-012
- Finishing Burs (Brassler)*
8855-012, 7003-012, 8274-016, 7104-014, 38011-52,
H48LF-012
- Tapered flat end white stone friction grip TC-1 (Shofu)*
- Fissurotomy Bur Original or Micro NTF (SS White)*

Other Must Have Items

- Cerisaw (Den Mat)*
- ProxiDiscs Smooth/Smooth (Centrix)*
- Isolite (Isolite systems)
- Compo-Shield (Practicon, Inc)* (800) 959-9505
- Logi Block (Common Sense Dental)*(888)853-5773
- IFlexiwedges(GDS)*
- Swe-Flex (Hager) Dealer or (800) 328-2335
- RuberDam Clamps (Hygenic)* 12A & 13A
- Blow dryer (Great Lakes)*

-15-

- 9% buffered HFL (Ultradent)*
- Sinfony Opaquer (3M/ ESPE)*
- Borderlock trays (Clinicians Choice)*
- AdDent warmer (Clinicians Choice)*
- Veneer Styx Plus (Global Dental)* (877)3VENEER
- Prime & Seal - Excellent root desensitizer (Densply)*
- Feather(Ultralight Optics)

Magnification

(Orascoptic Research)* 800 369-3698 (Design for Vision)
Global microscopes. 800 688-8376

Articulators & Earbow assemblies

- Protar system (Kavo)* Basta I and Basta II (FACE)
- SAM III system (Great Lakes)*

Occlusion supplies

- Bite registration wax and sheets (Delar)* 800 669-7499
- Split cast formers (Delar)* 800 669-7499

Labs used by Dr. Jeff J Brucia for the cases shown.

Prestige - Silke (415) 885-3335 CMR (208) 523-3401

Custom C&B (408) 252-8185

***These are the materials used in the presentation. I believe that all of the above materials are excellent and there are many more excellent materials that I have not had the opportunity to work with clinically.**

Go do it! Have fun and take pride in every restoration that leaves your office.

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