"Perfect Veneers"

Combining composite and porcelain for esthetic success!

Dr. John F Weston DDS, Accredited Member, Examiner, AACD
Director, Scripps Center for Dental Care, Ximed Center, La Jolla California
www.scrippsdentalcare.com

American Academy of Cosmetic Dentistry
www.AACD.com

AACD 12 Photos

- Portrait 1:10
- Smile 1:2
- Retracted 1:2
- Retracted 1:1
- Occlusals 1:2
- Additional Photos recommended - lips at rest, shade reference

Records, diagnosis and treatment planning

- Models, bite records CR and CO, face bow if restoring beyond the canines
- Determine esthetic zone from patient's perspective and yours
- Functional considerations and choices of restorative materials
- What does the patient like about their smile
- Communicate with your lab about the treatment plan prior to enamel reduction
- Fee schedules need to be determined with lab in mind

Advantages of intraoral mock up

- Establish incisal edge position accurately
- Gives patient ability to view projected result in their mouth
- More precise fit of provisional especially with gingival augmentation
- Lower lab fees and saves time
- Can help create value and sell a case
- Helps clinician develop esthetic skills

How to prepare the patient for mock up

- Show patient healthy smiles demonstrating proper central dominance and tooth display
- Look at their AACD 12 ask open ended questions
- Look at lips in repose or rest position, 2-3 mm of anterior teeth should be showing
- Look for negative space, lips should follow lower lip line, balance of pink and white

- Explain importance of proper length to width ratio 75% is a good start
- Goals are to establish, edge contour, basic shape and character not shade selections

How to do a mock up

- Add to one central with floweable incrementally, check lips at rest, 2-3 mm display
- Add to opposite central, measure length, 11 mm is average, check phonetics
- If lip position is good but the tooth is still too short then add over gingival tissue to simulate
- Build laterals 1 to .5 mm shorter than centrals, round distal edges of centrals and laterals
- Add to tips of canines, correct axial inclination by adding to mesial tip and distal gingival
- Build out buccal corridor on premolars, photo with and without
- Refine edge contour following basic smile design, finalize embrasures with a diamond disc.
- Contour facials and lingual with fine flame and football diamond burs
- Add flowable to lingual areas as needed, check and adjust occlusion and excursions lightly

Smile design principles review

- 75% length to width ratio
- Laterals 1mm to .5mm shorter than centrals
- Edges follow curve of lower lip – patients will adjust to very large amounts
- Incisal embrasures get larger as you move distal
- Buccal corridor is well developed, always show patient before and after
- Gingival heights of laterals are even or slightly lower to a line between canine and central
- Axial inclination and gingival zenith of anteriors point to belly button
- Contact points rise as you move distal
- 2-3 mm of display at rest

After you finish mock up

- Take digital photos of **smile, retracted,** and **lips in repose,** and look at it without patient
- Make any obvious corrections you see, avoid showing patient first time
- Re shoot and present photos to patient, then show with mirror, adjust as needed
- Make reduction guides facial and lingual edge using blue mousse or material of choice
- Be careful not to dislodge any of the design pieces
- Make a clear impression, or use material of choice if dual cure temp, two guns for fast set
- Save pieces over tissue to use for guides during laser contouring

Alternative lab assisted mock up with complex crowding cases and full mouth reconstructions with occlusal issues or when opening VDO

- Mock up central and lateral incisors only using all same principals
- Check for proper tooth display at rest, proper length to width and phonetics
- Make upper and lower impressions with bite records and send to lab
- They will complete a wax up based on your determined length
- Ask lab to fabricate siltec reduction guides and provisional stint
- When patient returns, prior to anesthesia, fill stint with provisional material place over teeth
- Remove stint, refine mock up, photograph, make changes as needed, present to patient

- I still make a clear impression of mock up after this and use for provisionals

Mock up side notes

- Do not go for too much detail, lab will provide ideal contours, shade, texture and character
- Educate patient about smile design factors during the process as you work explain why
- This is a great qualifier, if mock takes more than two hours, you may have a difficult patient
- Always check and adjust occlusion and excursions, saves time and problems later
- Complete mock up prior to prep day if time is available, give patient a printed photo
- Visualize results while working, looking from all angles, ask your assistant what they see
- Leave extreme rotated surfaces, clear away as a first step in the preparation phase
- Fabricate provisional matrix and reduction guides after this initial removal of tooth structure

Prep procedures

- Anesthesia, “surface push technique” Painless injections are great practice builder
- Place reduction guides before touching any tooth
- Always complete tissue contouring before prepping, use guides, and use water with diode
- Start prepping on farthest most difficult side first
- Create proper arch perimeter first then start preps
- Start at gingival, prep just to tissue; do not abrade tissue, use loupes or microscope
- Prep middle then incisal using the same bur on all teeth before changing
- Check reduction guides throughout prepping; use retractor to keep lips clear
- Create a flat area in the middle ht of contour, where space is needed most
- Incisal edge last, use reduction guide 1.5 to 2mm and round all sharp edges
- Break contact all teeth even if just with a diamond strip, easier impressions and lab work
- Minimal premolar reduction if building out, wrap buccal cusps just facial to central groove

Impression procedures

- Use retractors to gain control, scrub wash and clean all tooth dust and debris
- Dry and inspect blow water out from lingual surfaces and check for open contacts
- Blow air checking need for expaseal only use where needed, always fresh tube, 1 minute
- Use impression material of choice, blow into sulcus for minimal invasive impression

Provisional procedures

- Remove clear guide from tray ahead of time, cut away interproximals and try in if needed
- Remember to make digital photo of wet preps with a shade tab
- Place retractor, scrub with consepsis, rinse, dry
- For Shrink fit technique, hydrate with TR or glumma, seal with single bond, air dry and cure
- Fill teeth ¾ of the way in the impression and seat with firm pressure but do not flex guide
- For shrink fit technique, need extra time with pressure on buccal and lingual
- Remove from one end in a peeling motion, immediately add to voids with floweable
- If using a remove and re-cement technique, copiously coat all surfaces with C&B lubricant

- Remove earlier and reseat back into impression for final set
- For both techniques use football on lingual incisal, rubber polishers to blend margins
- Trim facial by painting the margins with a fine diamond and light pressure, use loupes
- Diamond disc incisal edges, check occlusion, pumice with rubber cup, place acrylic sealer
- Photograph retracted, smile if possible and eyebrow to chin showing incisal edges
- Written hygiene instructions using bristle flossing with Peridex, include eating restrictions

Delivery procedures

- Anesthesia “surface push” technique
- Cut provisionals interproximally use prep model as guide for avoiding preps reference
- Floss, scrub with peroxide, then consepsis, wash thoroughly, visual inspection for cement
- Single anterior try in with water, glycerin or color matched try-in paste
- For difficult patients where shade is a big issue, try in all and get signed consent
- Rubber dam using slot technique, topical on lingual of clamps, 26n on molars
- Use viscostat and expaseal where needed, carefully place 000 retraction cord with an IPC
- Dry try in starting with centrals moving out, passive fit, check/adjust proximal contacts
- Etch three at a time, rinse well, dry well and re-wet all exposed dentin with TR or Glumma
- Prime/bond air dry and do not cure unless bond is confirmed to be very thin and not pooled
- Rapid seating technique from centrals back, seat all restorations, push down only once
- Clean all facial areas with micro tips, begin tacking margins only, centrals back, 2mm tip
- Hold veneer using tip on the facial gingival and your finger on the Incisal edge
- Clean linguals; tack lingual margins, clean interproximals with brush, tack facial again
- Place glycerin and fully cure, two high intensity lights on lingual and facial at same time
- Remove excess with fresh bard parker #12, Use football fine diamond on lingual areas
- Use ceri saw or separating disc interproximal, follow with perforated diamond strips, floss
- Do not use rotary instruments on facial if possible, rubber cup polish all margins
- Check occlusion, excursions, smooth, adjust all lingual areas and polish with rubber tips

Bite protection and patient instructions

- Remedeze – Thermoplastic flat plane occlusal guard
- Consider anterior deprogrammer for non joint patients
- Give a power brush as a gift

Clinical Steps Chair-side Checklist

PRE – OP INFORMATION
Pre-med

35 mm - Portrait, 1:2 Smile and retracted
Digital - AACD 12, shade reference, lips in repose
Impression - Max, Mand
Bite records - CR and Face bow

MOCK UP
Measure and establish Incisal edge position
Contour and final shaping
Digital photos - 1:2 Smile and retracted
Anesthesia
Prep guides - Lingual and Facial
Clear Impressions

PREPARATIONS
Tissue Contouring
Prep Upper anterior 6 and lower anterior 6
Anterior bite jig with new vertical if needed
Prep remaining upper and lower
Bite record posterior prep to prep with jig in place
Stick bite
Final Impressions

PROVISIONALS
Clean and disinfect
Digital Photo of wet dentin shade
Seat Upper Temp
Bite record to lower preps or natural teeth
Seat lower temp
Bite records temp to temp
Digital photo - 1:2 Smile, retracted and eyebrow to chin retracted
Impression – Maxillary provisionals

Armamentarium
Prep burs - Fatty, tall and short, Gold Chamfer – Two Striper
Finish burs - Flame, football, disc - Brassler
Adec Electric HP's - Bien

Provil Nova – Heraeus Kulzer
Expaseal – Kerr
Viscostat –
000 Retraction Cord –
26 N Rubber Dam Clamps -
Pro Temp - 3m
Pro Temp add material – 3m
Fuji S2 Pro Digital Camera - Fuji
Clear Bite - Danville
Alginate substitute – Position Penta, 3M
Blue Mousse -
Tetric flow A1 - Ivoclar
Diode Laser - Premier
Halogen Curing light - Demtron
LED Curing light - Demetron
2mm tacking tip - Demetron
6mm Turbo tip - Demetron
Veneer cement – 3M translucent
Tubulicid – Red Label
Consepsis Scrub -
Single bond Plus – 3M
Etch Gel with spiral tip -
Ceri saw - Brassler
Diamond strips Red and Yellow - Brassler
Grey Rubber Polishers – Shofu
Bard Parker #12
Green Cup – Vivadent
Pumice – Preppies, Whaledent
Accufilm -