

PROJECT 7

FINAL IMPRESSION & LAB PRESCRIPTION

03.03.2022

- #9~11 : Fixed dental prosthesis (zirconia framework + facial veneering)
- #12 : Single crown (zirconia framework + facial veneering)



Custom tray fabrication



Custom tray fabrication



Try-in
&
Adjustment
(if necessary)



PVS tray adhesive



Wax block out



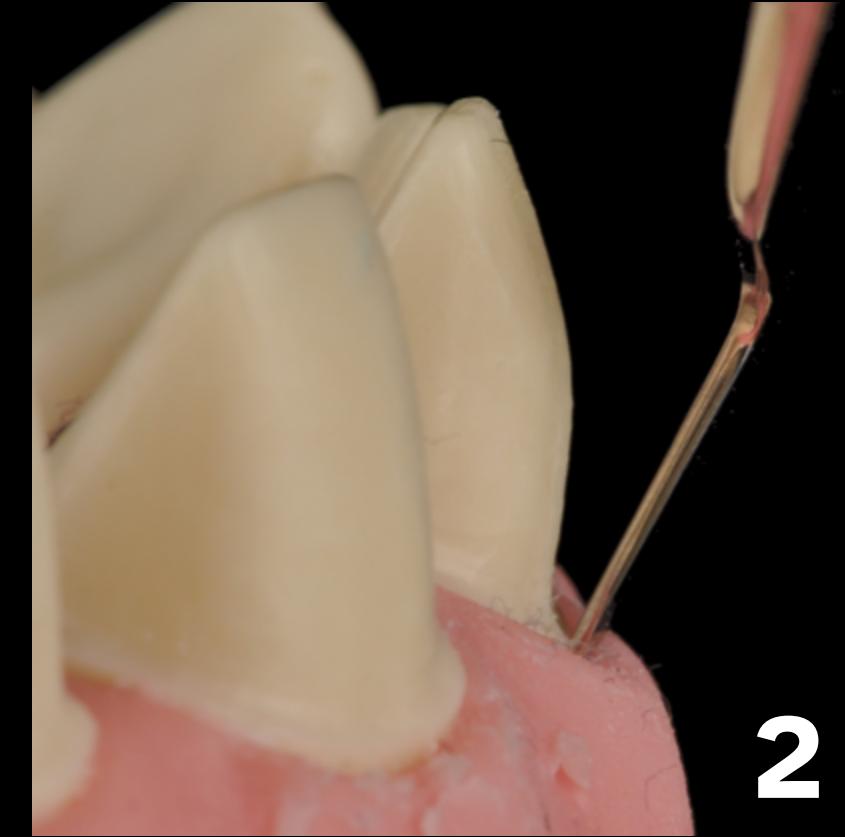
Gingival retraction cord
(knitted, no epinephrine)



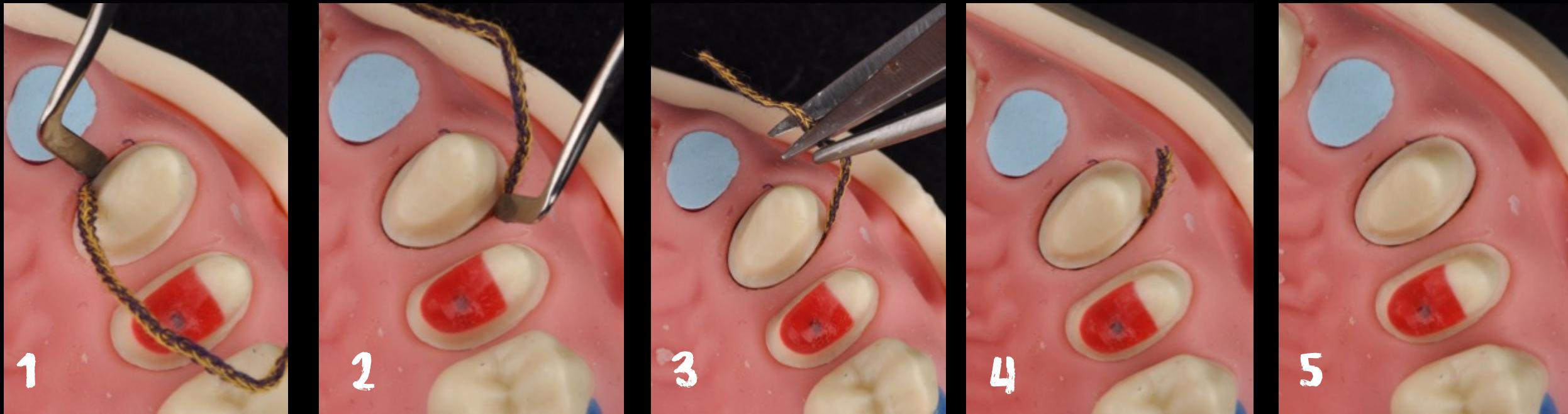
Cord packer
(GCPS6)



1



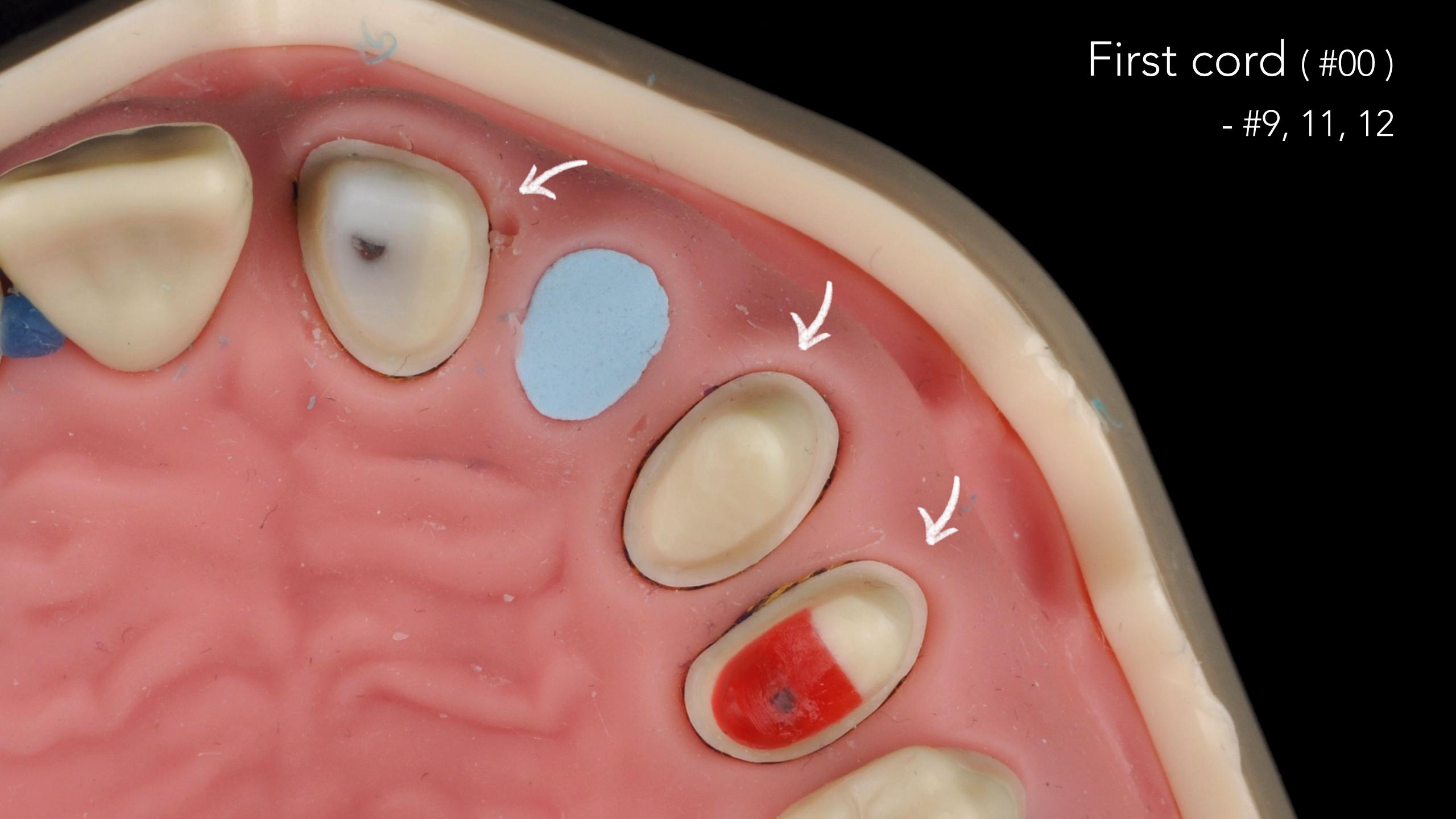
2



First cord (#00 or larger)

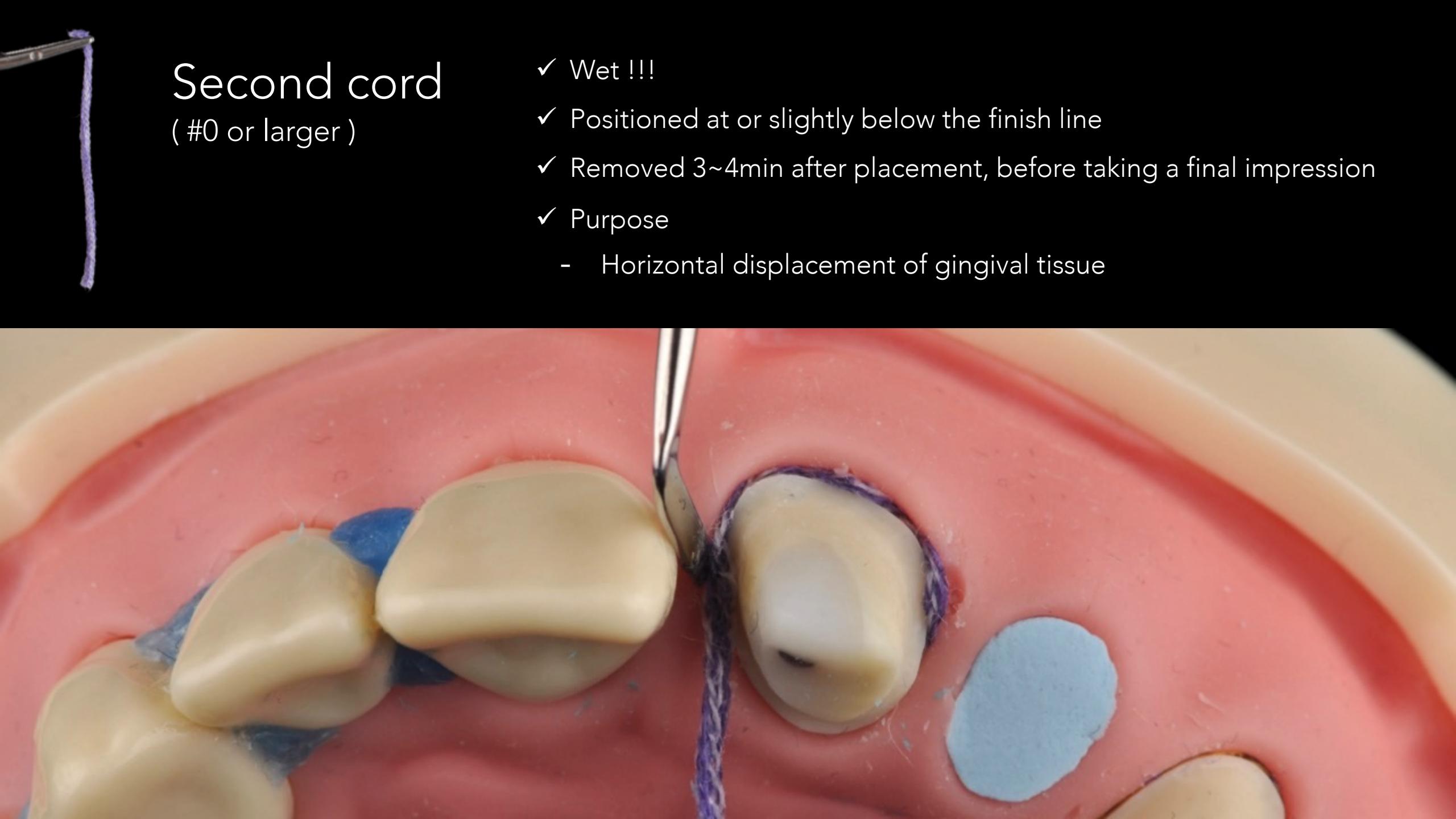
- ✓ Wet or dry
- ✓ Pack all the way down to the base of gingival sulcus
(positioned below the finish line)
- ✓ Removed after impression taking

- ✓ Purpose
 - 1. Vertical displacement of gingival tissue
 - 2. Block gingival crevicular fluid / bleeding



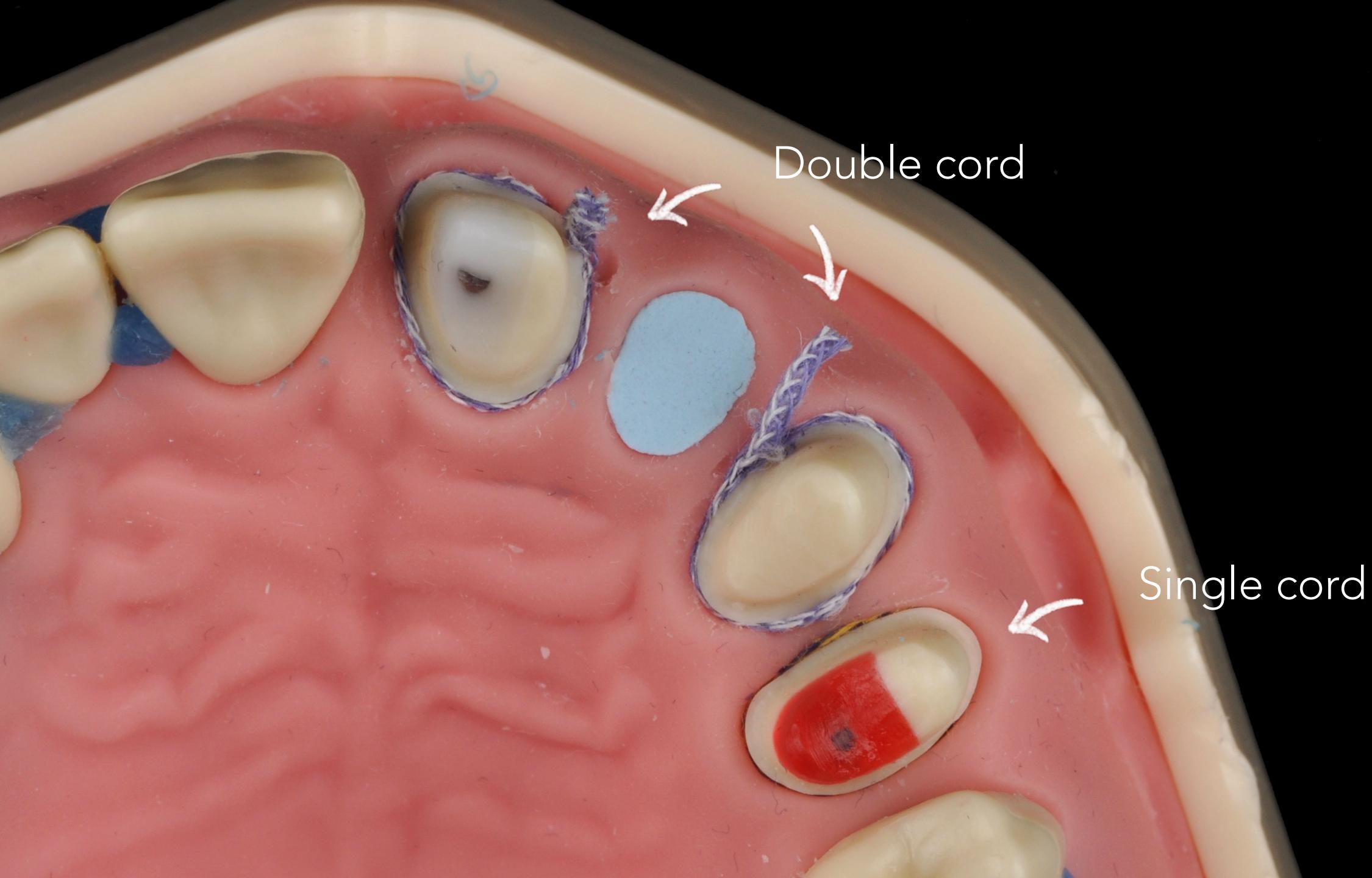
First cord (#00)

- #9, 11, 12



Second cord (#0 or larger)

- ✓ Wet !!!
- ✓ Positioned at or slightly below the finish line
- ✓ Removed 3~4min after placement, before taking a final impression
- ✓ Purpose
 - Horizontal displacement of gingival tissue



Remove second cords only !!!



Remove horizontally

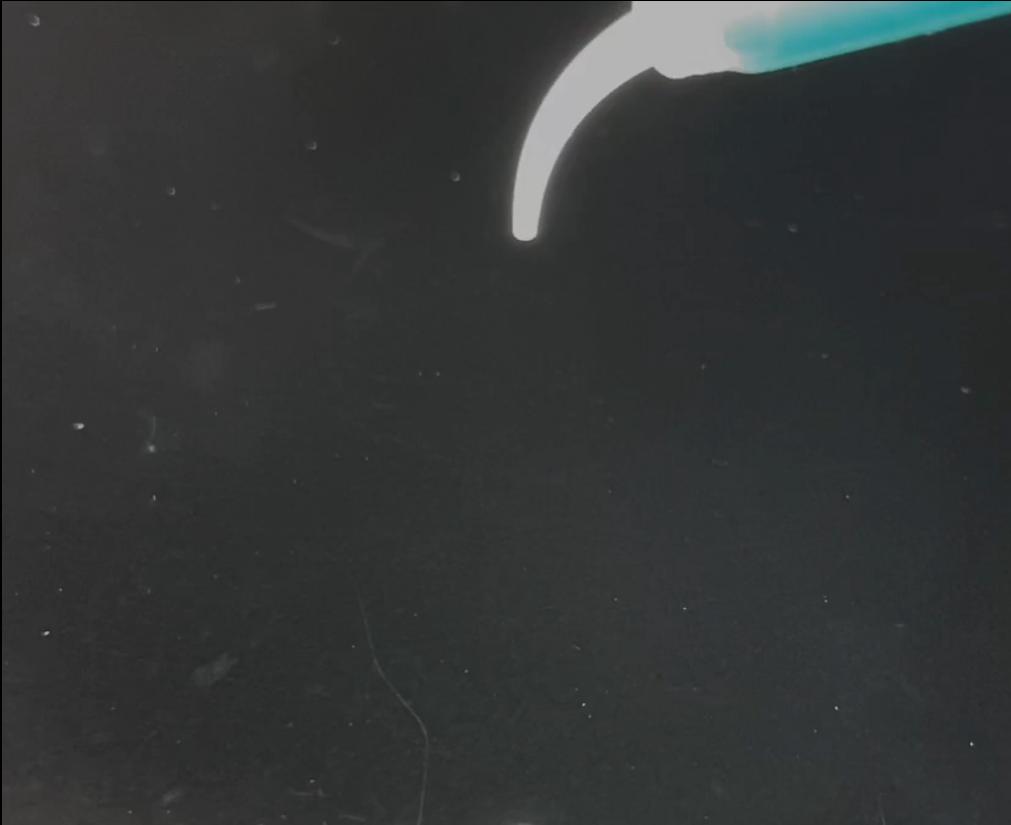


Remove vertically

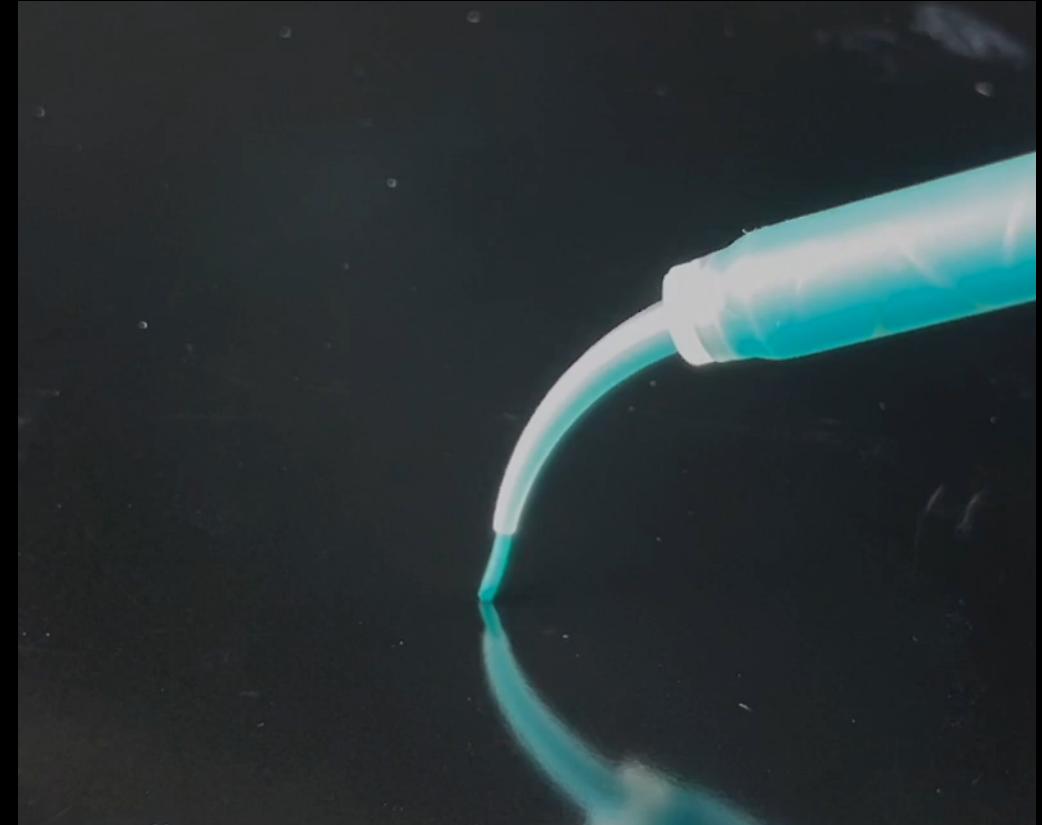


Bleed out before injection

Light body injection



- ✓ Light pressure
- ✓ Far away

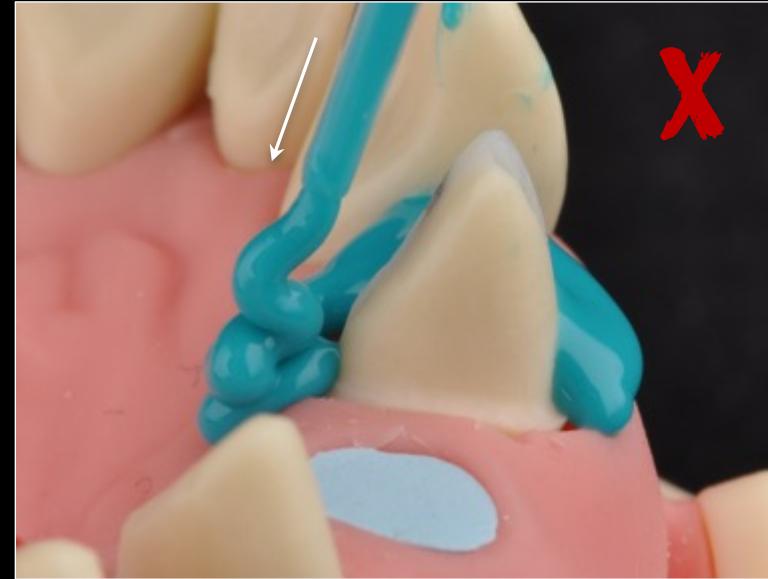


- ✓ Firm pressure
- ✓ Close

Light body injection



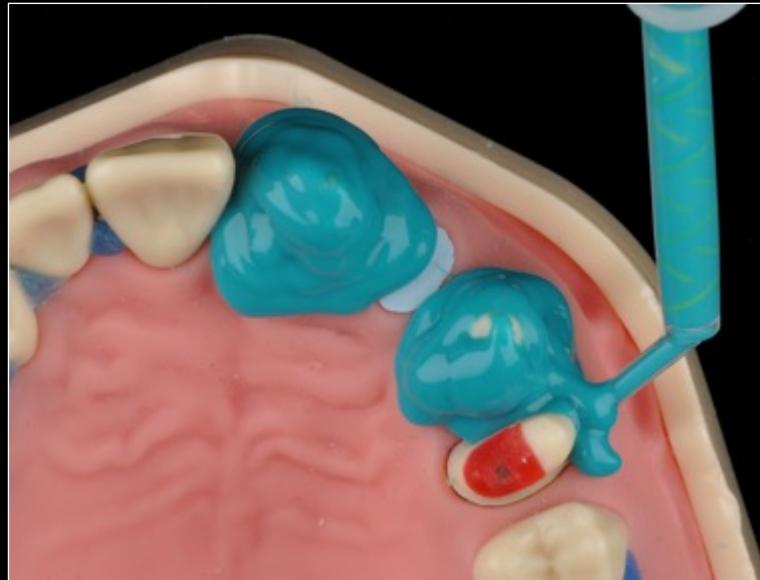
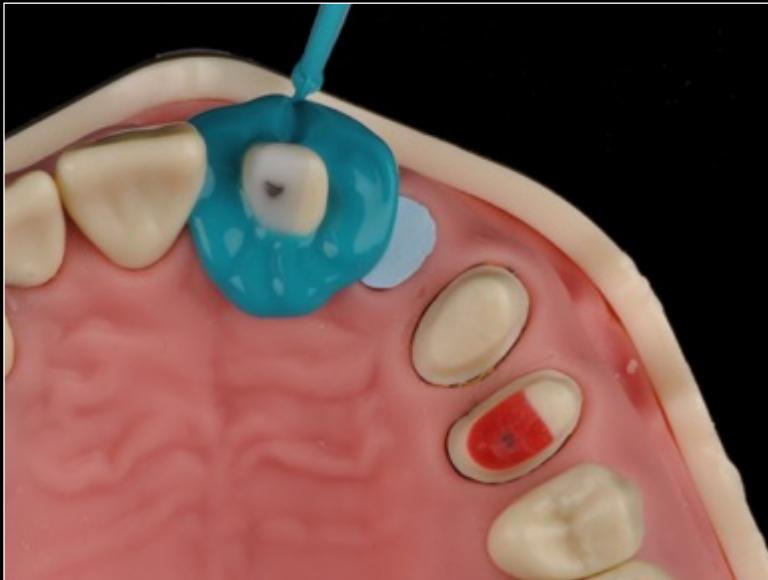
Facial



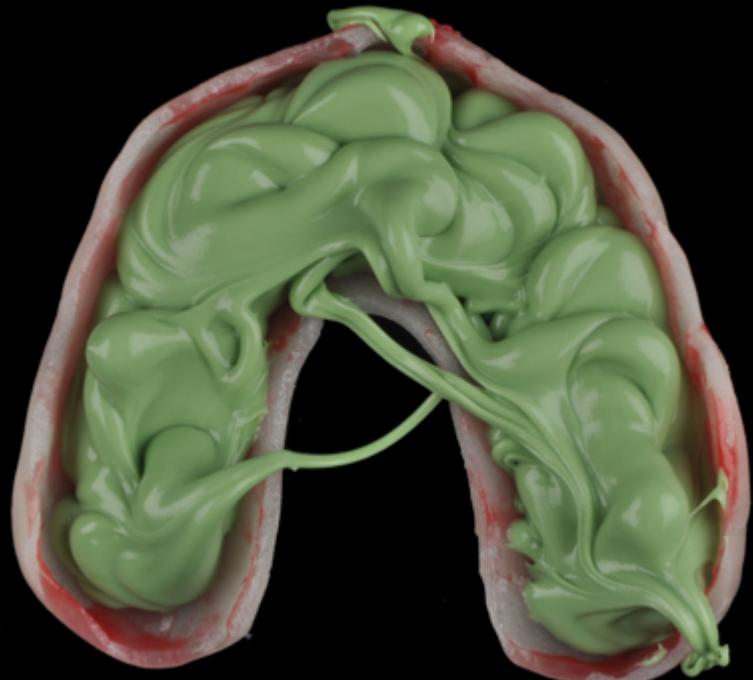
Palatal



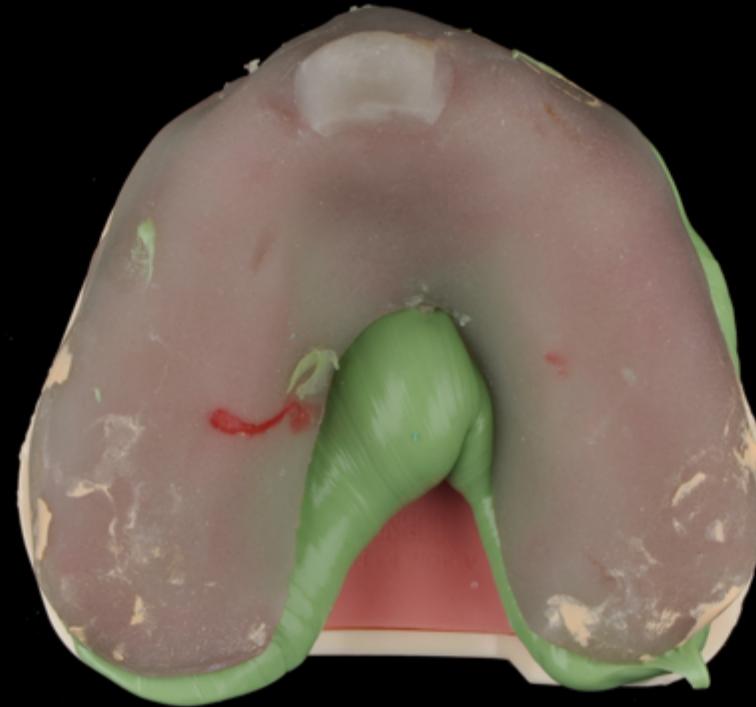
Light body injection



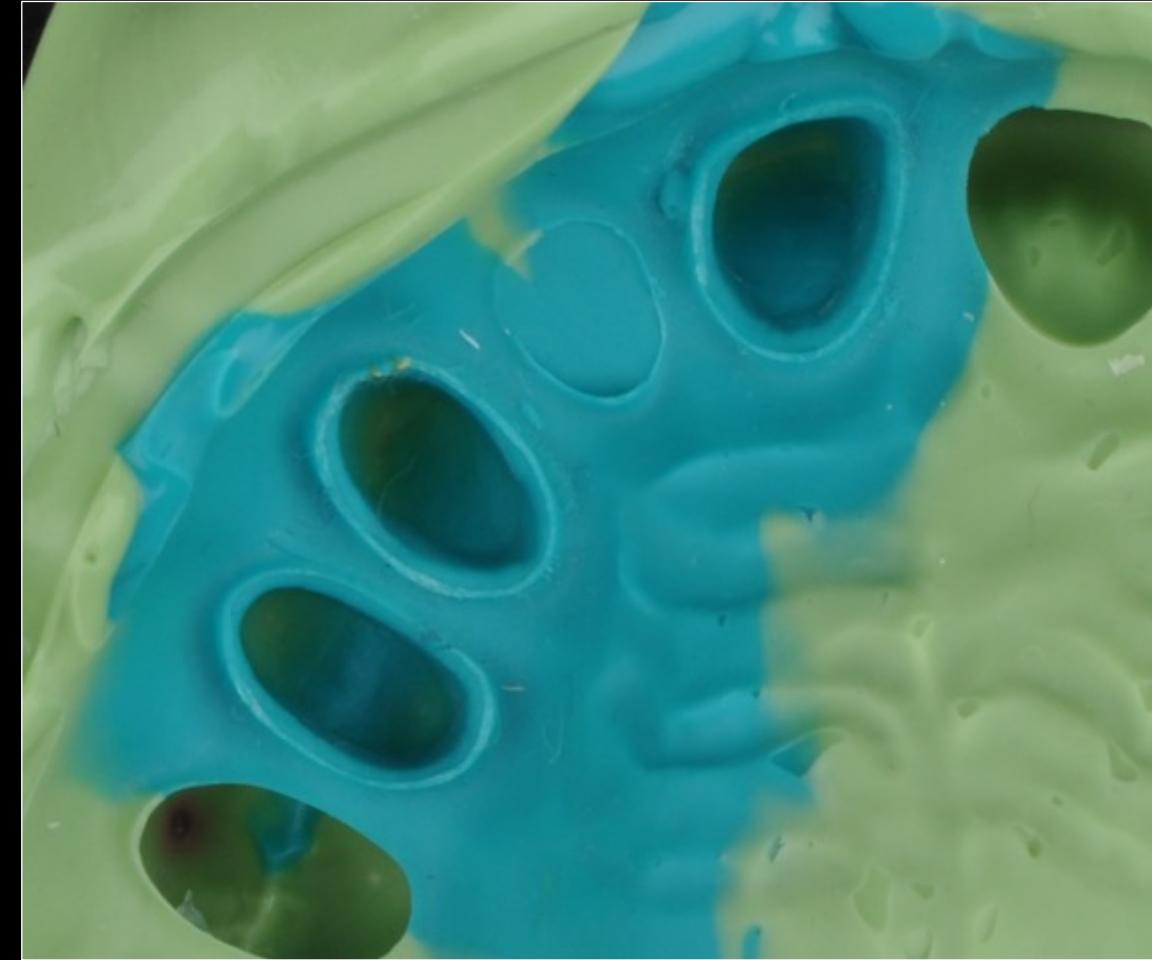
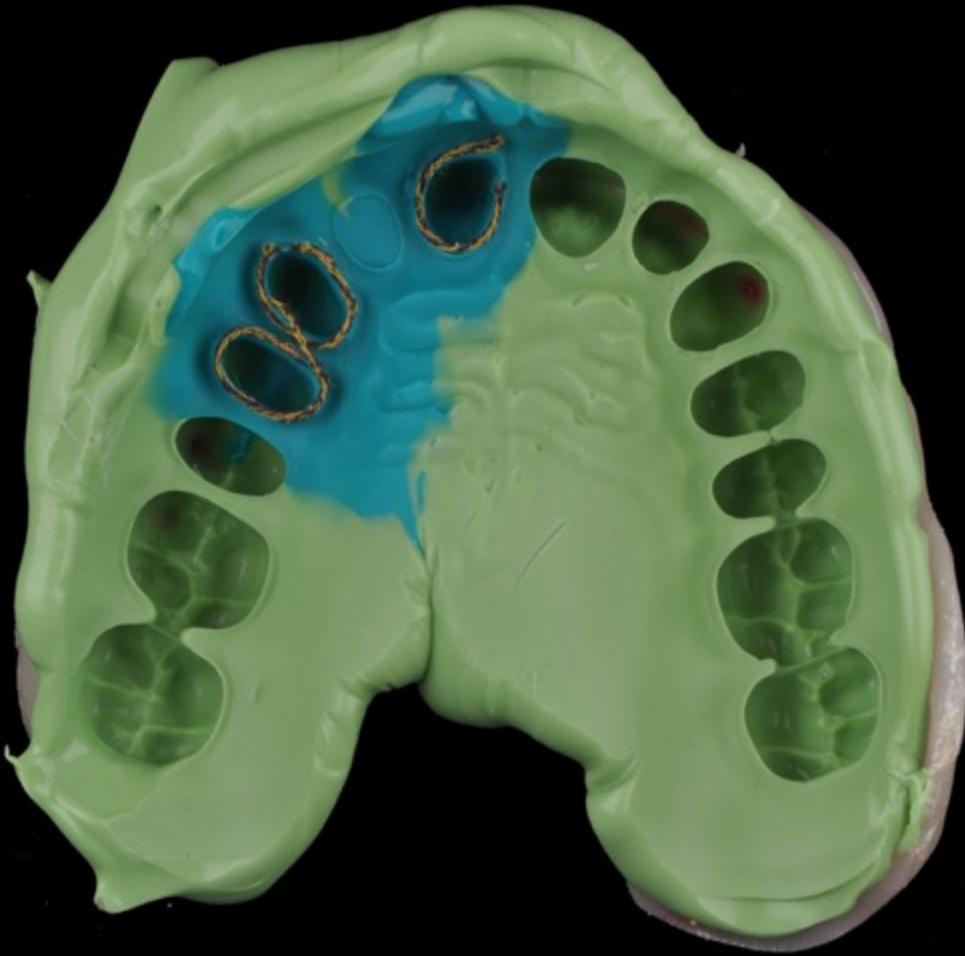
Tray seating



Heavy body



Setting time = 5min



Completed impression

A clinical evaluation of fixed partial denture impressions

Nachum Samet, DMD,^a Michal Shohat, DMD,^b Alon Livny, DMD,^c and Ervin I. Weiss, DMD^d

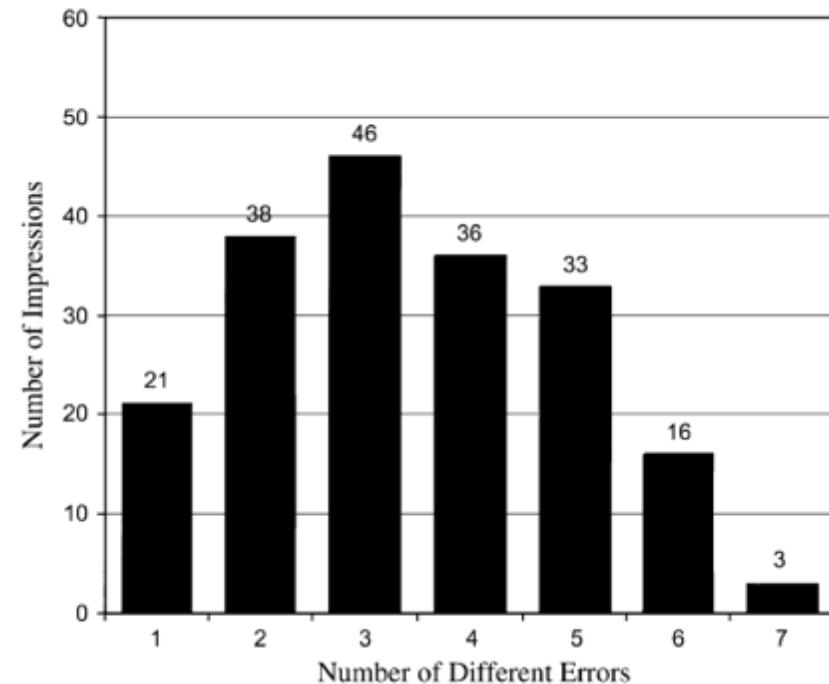
Harvard School of Dental Medicine, Boston, Mass; Hadassah–Hebrew University School of Dental Medicine, Jerusalem, Israel

Table I. Occurrence of various detectable errors

Criteria	Percent occurrence*
Voids or tears at finish line	50.7 (98)
Putty exposure through wash (in double-step technique)	44.0 (85)
Air bubbles at finish line	40.4 (78)
Pressure of tray on soft tissue	38.3 (74)
Inadequate retention of material to tray	33.7 (65)
Flow problems	23.8 (46)
Retraction cord attached to impression	6.2 (12)

Of 193 impressions for FPD evaluated by 3 examiners, 172 (89.1%) had 1 or more detectable errors.

*Percentages relate to 193 impressions. Total number in parentheses.



LAB PRESCRIPTION

1 MATERIAL

- *Monolithic or Bilayered*
- *Lithium disilicate filled glass ceramic*
 - Workflow : pressable LiSi2 (IPS e.max Press) or machinable LiSi2 (IPS e.max CAD)
 - Translucency : HT, MT, LT ...
- *Zirconia*
 - Translucency / strength : 3Y-TZP, 4Y-PSZ, 5Y-PSZ, multilayered block.

LAB PRESCRIPTION

1 FRAMEWORK DESIGN (Bilayered restorations only)

- *Lithium disilicate filled glass ceramic + Veneering ceramic*
 - Incisal edge layering
 - Incisal edge & facial surface layering
- *Zirconia + Veneering ceramic*
 - Facial surface layering (without incisal cut back)
 - Facial surface & incisal edge layering
 - All surface layering

LAB PRESCRIPTION

3 DIMENSIONS, CONTOUR AND SHAPE

- *Diagnostic model (or pre-op scan)*
- *Diagnostic wax-up (or digital design)*
- *Provisional restoration (impression or scan)*
- *Other special instructions*
 - Embrasure space
 - Pontic base design
 - Special modifications from the design reference

LAB PRESCRIPTION

4 SHADE

- *"Please see the attached photos."*
 - Photos taken with the selected shade tabs.
 - Stump shade photos (LiSi2 – always, Zirconia – only for severely discolored teeth)
- *Other special instructions.*
 - Please, match to the canine and ignore the central.
 - Please, create a vertical crack line.
 - Please, add some white spots.

LAB PRESCRIPTION

5 OCCLUSAL SCHEME

- *Canine guidance / Group function*
- *Anterior guidance*
 - Diagnostic model (or pre-op scan) / Diagnostic wax-up (or digital design) / provisional restoration
 - Custom incisal guide table

LAB PRESCRIPTION

6 FINISH

- *Monolithic LiSi2 / Monolithic Zirconia*
 - Polishing
 - External Staining and glazing
- *Bilayered LiSi2 / Bilayered Zirconia*
 - Layered surface (facial) : almost always glaze (self-glaze, glazing paste/powder, manual finish after glazing)
 - Functional surface (lingual) : polished or glazed
- *Intaglio surface*
 - HF etching ? (LiSi2) / Air-abrasion (Zr)

- Week 8 – Final impression & Lab prescription (03.03.2022)

Due by 03/10/2022 Thu 11pm

REST 717

Indirect Restorations III

LOC

- Complete the course BLUE evaluation
- No unexcused absence
- Final written exam (1:00 ~ 3:00 pm. 03.17.2022) \geq 92%
- Quizzes (1:00pm ~ 1:10pm, every Thursday) \geq 70% of overall quizzes.
- Hands-on projects
 1. No "Standard Not Met" throughout the term.
 2. "Excellent" for more than 75% of grading criteria (cumulative for all projects)

** Qualified students can submit their projects to the course director at the end of the course. The course directly will evaluate the submitted projects and determine whether the student will receive a letter of commendation or not.

Simulation project submission for LOC

- 03/10/2022, 1pm (before the quiz)
 1. LOC form - posted in Sakai (Course material -> Week 9)
 2. Diagnostic wax-up (mounted on the articulator)
 3. Prepared teeth (upper arch only)
 4. Provisional restoration
 5. Final impression
- Your projects will be examined and returned after the quiz.