Tips for successful PVS impressions every time!

PVS or VPS materials have low shrinkage and high tear strength, therefore provide precision for Emerging Technology applications.

- Use well perforated disposable impression trays and apply PVS adhesive (no metal impression trays)
- Perform a brief oral exam to plan procedure, tray sizing, etc.
- Size tray properly to ensure capturing beyond the distal of the terminal molars in each arch – try in
- Customize trays with a burr if needed or flame the lingual and peel back plastic in the event of mandibular tori to minimize patient discomfort
- Use “Block out” such as Gingiguard to avoid deep undercuts
- Post dam both impression trays with SQUARE utility rope wax to prevent the flow of material out of the back of the tray and it also helps to avoid air bubbles in the terminal molar regions
  - One seating technique
- Preferably use Heavy body regular set PVS material to ensure adequate working time
- Always properly bleed the cartridge first to get rid of any air bubbles
- Dry the teeth with Aloe free Kleenex or gently air dry
- Load the tray using the large syringe tip (usu. aqua blue) at least 90% full with heavy Body PVS- while keeping the tip slightly immersed in the material at all times to prevent air entrapment - DO NOT PUSH the dispensing tip THROUGH THE BOTTOM OF THE TRAY
- Always intentionally moderately overflow the distal ends of the tray with PVS to prevent voids in the set material
- Bleed the cartridge and then dispense/syringe with the smaller syringe tip (usu. yellow) the Light or Regular Body PVS or “wash” on top of the unset heavy body material- it is analogous to putting a light icing on a cake-this fills the last 10% of the impression tray.
- Immediately seat the impression in the mouth while the patient is seated in an upright position –center the frenum in the notch of the tray for perfect midline alignment for an accurately centered impression
- THE TRAY MUST BE SEATED SLOWLY AND EVENLY, NOT from posterior to anterior as we do with alginate materials - a slow symmetrical seating allows for any potential air bubbles that may have been trapped in the PVS material to release or escape
- Avoid rotating the trays - never allow the patient to bite into the tray or hold their own tray
- The operator must passively hold the tray in place until set-
- Check the manufacturer’s recommended time to ensure proper set
- Purchase a timer so the procedure is not unnecessarily hastened
- The tray is removed with one quick snap out motion
- Rinse under cool running water and then disinfect with an intermediate level disinfectant for the appropriate contact time- leave in the treatment room
- Do not fill the palatal region of the tray for the maxillary impression and repeat above steps for the upper PVS impression

OR

Two seating Custom Tray Technique-
- Use Putty for customization- Mix catalyst and paste with finger tips wearing vinyl or nitrile glove- No latex-will impede the set of Putty
- Mix until uniform in color-no marbling
- Roll quickly (like a hot dog) and seat in the dentition part of the tray- cover with “plicafol” or other separating medium for custom tray-form slight excess at distal to capture terminal anatomy
- Seat until set per manufacturers specs- use timer
- Remove tray from patient’s mouth, remove separating medium from impression
- Extrude the light body material in the concavity of the custom putty tray until filled
- Dry teeth… and then follow above protocol … Immediately seat the impression in the mouth while the patient is seated in an upright position – center the frenum in the notch of the tray for perfect midline alignment for an accurately centered impression…

Inspection of impression for acceptability for Emerging Technology applications
- Inspect the impression with the overhead light from the dental unit shining directly into the impression for proper viewing & assessment
- Ascertain that all the intended dental anatomy was captured in the impression
- Make certain there is no tooth contact with the bottom of the tray- (if so, retake impression
- Be certain the distal walls of the terminal molar are present
- No folds, no voids, no drags in any of the anatomical areas of the teeth
- Rule of thumb: If the folds, voids or drags are 2 mm beyond the gingival margins – then accept the impression. If the folds, voids or drags are within 2 mm of the gingival margin, then the PVS impression should be retaken
- If you question the impression results at all, then it is safest to do a retake, rather than to inconvenience the patient later by asking them to return to the office for the retake…
- If a patient has gingival recession – air dry teeth and extrude some light bodied wash in that receded area to assure full coverage and prevent voids-then seat the PVS filled impression tray
Obtaining a Bite registration

- Air dry the teeth
- Syringe a PVS bite registration material onto the occlusal surfaces of the mandibular right posterior teeth dispensing in a beading fashion moving forward to the midline depositing approximately a 5 mm thickness
- Then, syringe the material on the occlusal surfaces of the mandibular left posterior teeth dispensing forward to the midline to slightly overlap the previously dispensed material depositing approximately a 5 mm thickness
- Instruct the patient to bite down on their “back teeth”
- Follow the manufacturer’s setting time recommendations – use a timer
- Rinse and disinfect according to the manufacturer’s recommended protocol

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