

Impression Taking Guide

Isolation, tray selection, retraction, and scan technique — so the impression or scan you send us captures a margin the lab can actually use the first time.

- FOR REFERRING PRACTICES
- PVS & DIGITAL SCAN
- PRINT & KEEP CHAIRSIDE

General Principles applies to physical and digital capture alike

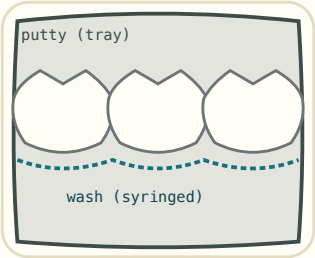
Most remakes traced back to the impression have nothing to do with the material — they come from a handful of fundamentals getting skipped under time pressure. Get these right first.

01 Isolation before anything else Saliva, sulcular fluid, and blood are the single most common cause of voids, pulls, and unreadable margins — for both PVS and digital scans. Achieve a dry, controlled field before you load material or pick up the wand.	02 Margin must be visibly open If you can't see a clean, continuous line of tissue displacement around the entire prep before you start, the impression or scan won't capture one either. Fix retraction first — don't try to compensate with more material.
03 Verify before the patient leaves Inspect the impression under good light — or the margin line on the scan monitor — before dismissing the chair. A five-minute retake at the visit beats a lab-flagged void that costs the case a full turnaround cycle.	04 One continuous surface, no patchwork Whether it's a wash layer or a scan stitch, the margin should be captured in one unbroken pass. Multiple touch-ups over the same area are where distortion and stitching errors creep in.

PVS Impression Technique

tray, viscosity combination, working technique

Both techniques below produce an accurate impression when executed correctly — the choice usually comes down to chairside preference and how much working time the case allows. What matters more than which one you pick is adequate material bulk (3–4 mm) everywhere, especially over the margin.



putty seats first, wash syringed second

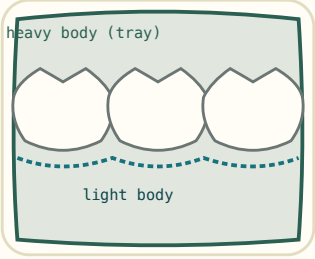
Two-Step (Putty / Wash)

Step 1 **Putty preliminary impression (unprepped tooth or spacer) or as a preliminary seat with a relief cut**

Step 2 **Light-body wash syringed around the prep, tray reseated**

Best for **Deep or subgingival margins, limited access**

The rigid putty shell resists distortion on removal, while the light body flows into the sulcus for fine detail. Relieve the putty (spacer, vent cuts, or a scored surface) so the wash has room — an unrelieved putty layer starves the margin of wash and reads as a pull.



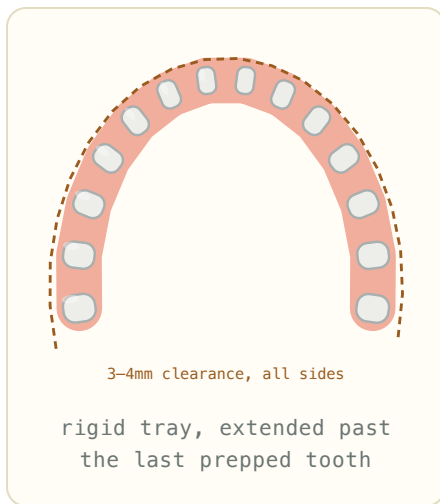
both viscosities loaded and seated together

One-Step (Simultaneous)

Technique **Light body syringed around prep while an assistant loads heavy body into the tray, seated as one unit**

Best for **Supragingival to shallow subgingival margins, faster chair time**

Requires the syringe and tray to be seated before either material begins to set — this is a timing-sensitive, two-person technique. If the heavy body starts to gel before the tray seats, you'll see a pull at the margin exactly like an under-relieved putty layer.



Tray Selection

Rigidity **Rigid stock or custom tray – never a flexible disposable for anything beyond a single unit**

Extension **Past the last tooth in the arch, and past the free gingival margin lingually and buccally**

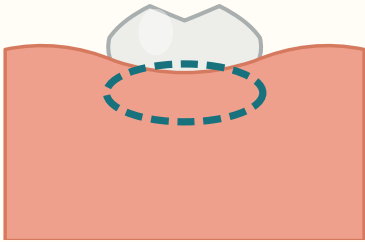
Material bulk **3-4 mm uniform – thin spots are where tear and distortion start**

A tray that flexes on removal, or one that bottoms out against the prep with no material between them, is the most common cause of a distorted die even when the impression looked fine coming out of the mouth.

Retraction & Tissue Management

four methods, match to the margin

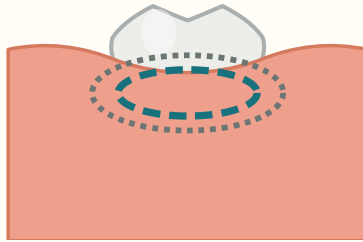
Every method below has the same goal: open a clean, dry, visible channel around the margin. Pick based on margin depth, tissue thickness, and how much bleeding you're managing — not habit.



Single Cord

MOST SUBGINGIVAL MARGINS

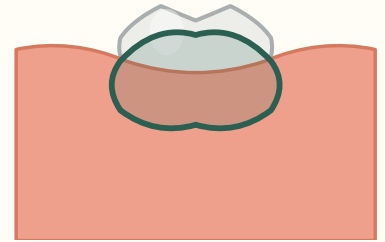
One appropriately sized cord (typically 00–1) packed and left in place during syringing. Fast, predictable, adequate displacement for the majority of cases.



Double Cord

DEEP MARGINS · THICK TISSUE
BIOTYPE

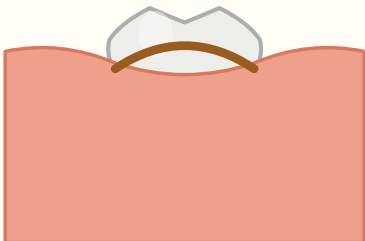
A small cord placed deep and left in place, a larger cord placed over it for hemostasis and bulk displacement — the larger cord is removed just before syringing, the small one stays.



Retraction Paste

ESTHETIC ZONE · THIN BIOTYPE

Aluminum-chloride paste syringed into the sulcus, left 1–2 minutes, then rinsed. Atraumatic, no cord-packing pressure — the right choice where thin tissue makes cord risky.



Electrosurgery / Laser

DIFFICULT HEMOSTASIS · RE-
PREPS

Troughs tissue away from the margin directly. Most effective for hemostasis control, but technique-sensitive — over-troughing damages attachment and won't grow back before the next visit.

Digital Scan Sequence

a consistent order avoids stitching errors

The margin-and-isolation principles above apply just as much to a scan as a PVS impression — a scanner can't read through blood or saliva any better than a syringe can flow around it. Follow a consistent sequence so the software has clean, overlapping surfaces to stitch.

Occlusal surface first, a molar if the arch has one

1

Start on an occlusal surface rather than lingual or buccal — a molar gives the stitching algorithm the most data points for a fast, clean initial capture before the scanner has to track anything more complex.

Full margin capture, one continuous pass — while the sulcus is still open

2

Circle the prep slowly with the tip angled to see under the tissue you've retracted. Watch the live margin line on screen — fill any gap immediately rather than patching it later. Tissue rebounds fast once cord or paste is removed, so the window to capture a clean margin narrows the moment retraction ends — scan the margin first, not last.

Adjacent and opposing arch

3

Capture at least one tooth mesial and distal to the prep for contact accuracy, then the full opposing arch.

Bite registration in maximum intercuspation

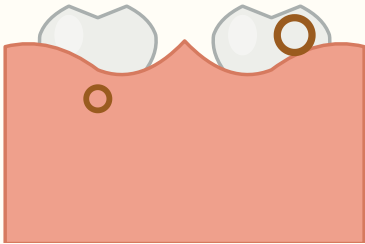
4

Have the patient close naturally — a bite scan taken out of true occlusion is the single most common cause of a high restoration at delivery, digital or analog. Capture it before local anesthesia where the sequence allows — a numb patient can't reliably relax into their normal bite, and accuracy suffers.

! Modern intraoral scanners generally don't require powder — but they still need a genuinely dry, matte field. Pooled saliva or a wet reflective surface produces the exact same dropout a wet PVS wash would.

Common Defects what causes them, what to do

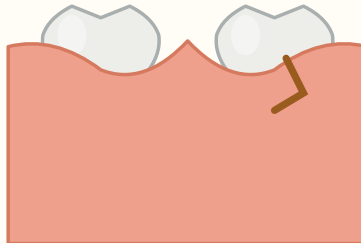
If you see any of these on inspection, retake before the patient leaves — none of them are things the lab can correct after the fact.



Voids / Bubbles

CAUSE: TRAPPED AIR, CONTAMINATION

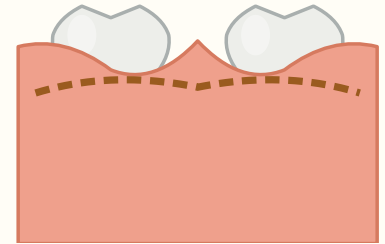
Air trapped in the syringe tip, or moisture/debris the material set around. Purge the syringe tip fully before intraoral injection and re-isolate before retaking.



Pulls / Tears

CAUSE: MOISTURE, INCOMPLETE RETRACTION, EARLY REMOVAL

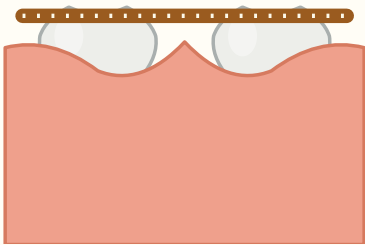
The margin didn't fully open, or the impression was removed before full intraoral set. Confirm retraction before syringing, and hold full set time — don't rush removal.



Wash Delamination

CAUSE: PUTTY SET BEFORE WASH APPLIED

The heavy/putty layer began to gel before the wash was syringed, so the two never chemically bonded. Work faster on Step 2, or switch to a fast-set light body if chair time is tight.



Compression Distortion

CAUSE: TRAY BOTTOMING OUT, UNDERSIZED TRAY

Tissue was pressed rather than displaced by material because the tray itself contacted the prep or ridge. Re-evaluate tray size and block-out before retaking, not just the material.

Quick Reference

typical PVS working & setting windows

SET SPEED	WORKING TIME	INTRAORAL SETTING	BEST FOR
Regular set	~2:00 min	~4:00–5:00 min	Full-arch or multi-unit cases needing more working time
Fast set	~1:00 min	~2:00 min	Single units, limited patient tolerance, high-volume days

Figures are typical ranges and vary meaningfully by brand and ambient/oral temperature — always confirm against the specific product's IFU, not this table, before timing a case.

! These techniques reflect established prosthodontic literature and standard laboratory practice — not a substitute for the specific material manufacturer's IFU, or your own clinical judgment on a given case. Unsure whether an impression or scan is usable before the patient leaves? Call the lab — we'd rather look at it now than flag it after you've moved on.

SnapDragon Dental Labs

8815 Dyer St, Suite 305
El Paso, TX 79904

Document control

SDL-IMPR-01, Rev. 2026-07
For distribution to referring practices.

Questions on a specific case

915.200.2931
Case-specific impression questions are always faster by phone than by guesswork.