

Anterior Discolorations

Minimally invasive management of enamel dysmineralization and white spot lesions

TREATMENT OPTIONS AT A GLANCE

TREATMENT	CODE	PRODUCT (MFR)	MECHANISM & DEPTH OF ACTION
Microabrasion	D9970	Opalustre (Ultradent)	Acid + pumice slurry; removes ~25 µm of discolored enamel per round (60 s of application).
Resin infiltration	D2990	ICON (DMG) https://drilling-no-thanks.info/	Unfilled resin infiltrant absorbed into enamel porosities up to 400 µm deep, caused by dysmineralization or white spot lesions (WSLs).
Peptide remineralization	D2991	Curodont Repair (Vvardis)	Peptides form a scaffold for new hydroxyapatite. 5-second application; delegable to hygienists in most states. Stronger evidence for interproximal than facial lesions.

SELECTING A TREATMENT

White spot lesions: resin infiltration (ICON) only.

Opaque lesions that do not blend with the background: consider microabrasion first — it is easier, faster, and cheaper.

Diffuse, cloudy lesions with preserved translucency : try with resin infiltration



Lesion appearance guides material selection: opaque and cloudy dysmineralizations versus white spot lesions.

CLINICAL APPLICATION



Microabrasion slurry applied under isolation



Infiltrant / etchant placement on facial surfaces

RESIN INFILTRATION (ICON) — TIPS & TRICKS

1. Treat immediately after orthodontic debonding — ask the orthodontist to refer before permanent retainers are placed.
2. Place a rubber dam; otherwise the acid temporarily turns the gingiva white.
3. For persistent brown stains: sandblast + sodium hypochlorite, or at-home bleaching.
4. Etch up to three times.
5. Check masking with ICON Dry before infiltrating.
6. Infiltrate only when transillumination shows a clear outline of the lesion.
7. If the lesion outline is not visible on transillumination, sandblast.
8. Keep the resin on the teeth in the **DARK** for up to 15 minutes.
9. Polish with a composite polisher after infiltrating.

MICROABRASION — TIPS & TRICKS

Every 60 seconds of microabrasion removes ~25 µm of enamel. *For reference: a central incisor has approximately 1 mm (1,000 µm) of facial enamel.*

ARMAMENTARIUM

CATEGORY	PRODUCT (MANUFACTURER)
Microabrasion	Opalustre (Ultradent)
Resin infiltration	ICON (DMG)
Peptide	Curodont Repair (Vvardis)
Transillumination	Microlux (Addent)
Rubber dam	Dermadam (Ultradent); True Dam (Clinician's Choice)
Sandblaster	Microetcher II (Danville)
Floss	Gorilla Floss (Piksters)
AI radiograph analysis	Overjet; Pearl

