

STEP-BY-STEP ROOT CARIES RESTORATION WITH EQUIA Forte HT

Restoring root caries lesions in elderly patients can be a real challenge, but it is a challenge that dentists will face more and more as the population ages.

A fast, easy to place, bioactive, moisture tolerant and protective glass hybrid EQUIA Forte HT, will help bridge the difficulties of isolation and deep carious lesions.

At the same time it provides optimal strength, protection and aesthetics.



1. Assess the restorability of the affected tooth.



2. Remove carious tissue. In teeth with healthy pulp, selective caries removal technique can be used.*



3. Clean the cavity.
OPTIONAL STEP:
Apply Cavity Conditioner (10 sec.) or Dentin Conditioner (20 sec.). Rinse and dry gently.



4. Apply EQUIA Forte HT directly into the cavity.



5. Contour and model with a modeling instrument. Working time is 1 min 30 sec from start of the mix.



6. After complete setting do the final shaping and contouring with a fine grit diamond bur. Setting time is 2 min 30 sec from start of mix.



7. Place EQUIA Forte Coat onto the restoration with a micro brush. Do not air-blow.



8. Light cure for 20 sec. with a light curing device (> 500mW/cm²: Halogen/LED)

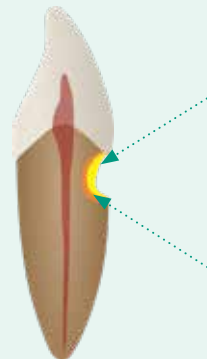


9. Final result.

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* Selective Caries Removal Technique

Selective caries removal is a restorative technique in which **infected dentin** is removed and **affected dentin** is preserved. This technique helps prevent pulp exposure and also often eliminates the need of local anesthesia. Slow rotary or hand instruments can be used. The cavity is then sealed with a restorative material. There is strong evidence* of good long-term survival of restorations placed with selective caries removal approach.



Infected dentin

- Closer to the surface of the cavity
- Soft, cottage cheese-like consistency
- Lacks sensation
- Light-brown in color
- Wet looking

Affected dentin

- Deeper layers of the cavity
- Leather-like consistency
- Sensitive
- Dark-brown in color
- Tacky feel

Restoration after selective caries removal with EQUIA Forte HT

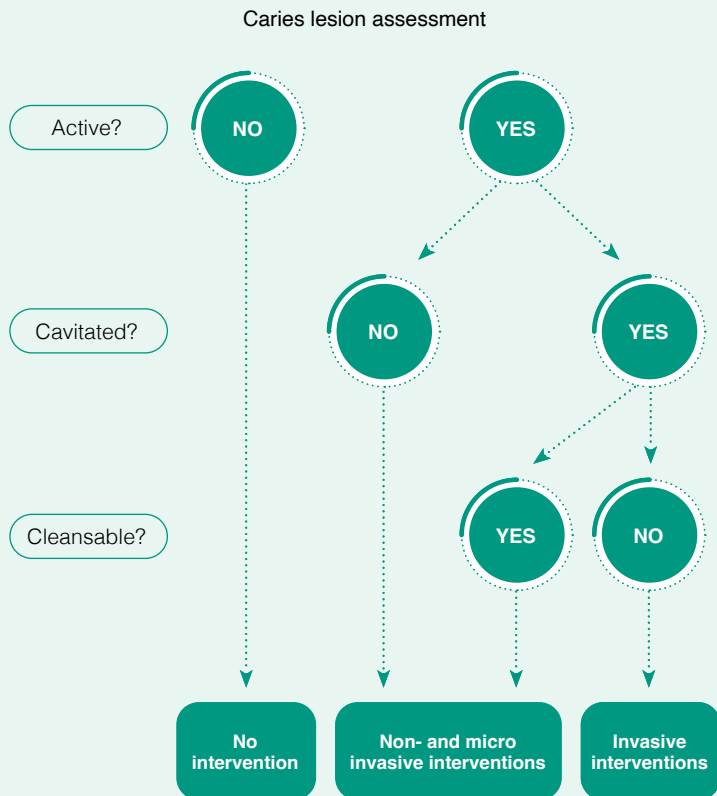


- Chemical bond to demineralized tooth structure
- Fast bulk fill application
- Moisture tolerance
- Ion exchange with root surface prevents progression and reoccurrence of caries



* - Banerjee A, Frencken JE, Schwendicke F, Innes NPT. Contemporary operative caries management: consensus recommendations on minimally invasive caries removal. Br Dent J. 2017 Aug 11;223(3):215-222. doi: 10.1038/sj.bdj.2017.672. PMID: 28798430.
 - da Mata C, McKenna G, Anweigi L, Hayes M, Cronin M, Woods N, O'Mahony D, Allen PF. An RCT of atraumatic restorative treatment for older adults: 5 year results. J Dent. 2019;83:95-99.
 - Lim, Z., Duncan, H., Moorthy, A. et al. Minimally invasive selective caries removal: a clinical guide. Br Dent J 234, 233–240 (2023).

Caries management decision tree:



Schwendicke, Falk & Splieth, Christian & Breschi, Lorenzo & Banerjee, Avijit & Fontana, Margherita & Paris, Sebastian & Burrow, Michael & Crombie, Felicity & Foster Page, Lyndie & Gatton, Patricia & Giacaman, Rodrigo & Gugnani, Neeraj & Hickel, Reinhard & Jordan, Andreas & Leal, Soraya & Lo, Edward & Tassery, Herve & Thomson, William & Manton, David. (2019). When to intervene in the caries process? An expert Delphi consensus statement. *Clinical Oral Investigations*. 23. 10.1007/s00784-019-03058-.

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When **no intervention** is indicated there are still measures that can be taken to prevent incidence and progression of caries:



- Assess patient's dietary habits and recommend foods and drinks low in sugar
- Help the patient maintain excellent oral hygiene by in-office appointments and education of the patient and care givers
- Tip the balance in your favor – boost remineralization with MI Varnish™ in office and MI Paste Plus™ at home



Incipient caries lesions can be managed in a **non-invasive** or **micro-invasive** way. This approach will contribute to preservation of tooth structure.



- Apply MI Varnish to incipient carious lesions
- Protect the exposed root surfaces with the flowable glass ionomer GC Fuji TRIAGE™



Cavitated and active carious lesions may have to be managed more **invasively** but minimally invasive principles can still be applied.



- Restore with the Light-Cured RMGIC Fuji II LC in patients where the easy and speed of placement is paramount
- Restore deep root carious lesions with moisture tolerant and strong Glass Hybrid material: EQUIA Forte HT
- When isolation is possible and aesthetic demands are high, restore effortlessly with an injectable composite: G-aenial™ Universal Injectable

