

Improve Pulp Capping Success Rates: a guide for the best results

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Protocol for Successful Pulp Capping

1. **DIAGNOSIS:** Accurate preoperative diagnosis: reversible pulpitis or better
2. **ISOLATE:** Rubber Dam is by far the best technique
3. **CARIES FREE ZONE:** Peripheral area clean (DEJ + 1 mm towards pulp)
4. **NO BLEEDING:** Exposure stops bleeding within 10 min with sodium hypochlorite (if the pulp is not exposed, this is not necessary)
5. **MTA:** Only use MTA/Biodentine and never use a composite material (or a material that requires light curing)
6. **SEAL:** Secure the MTA with an RMGI liner
7. **RESTORE:** Immediately with a definitive restoration

Direct Pulp Capping

When the pulp is exposed, or is suspected to be exposed (proximity less than 0.5 mm)

STEPS

1. Establish/maintain excellent isolation (rubber dam is ideal)
2. Apply sodium hypochlorite to stop bleeding (within 10 minutes)
NOTE: if bleeding does not stop within 10 minutes, initiate pulpectomy (RCT)
3. Place 0.5 mm thick MTA liner over pulp exposure region
4. Place 0.5 mm thick RMGI liner over deepest portions of dentin and totally cover the MTA with a 1.0 mm+ margin and light cure with air spray
5. Perform enamel and dentin conditioning (self etch, selective etch or total etch)
6. Use chlorhexidine again with total etch systems for at least 60 seconds
7. Proceed with layered composite build-up technique



Isolated



Bleeding Stopped



MTA/Biodentine



RMGI Liner



RMGI Base (optional)



Final Restoration

Indirect Pulp Capping

When the pulp is not exposed, however, the proximity to the pulp is less than 1.0 mm

STEPS

1. Establish/maintain excellent isolation (rubber dam is ideal)
2. Clean prep with 2% chlorhexidine for 120 seconds
3. Place 0.5 mm thick RMGI liner over deepest portions of dentin and light cure with air spray
4. Perform enamel and dentin conditioning (self etch, selective etch or total etch)
5. Use chlorhexidine again with total etch systems for at least 60 seconds
6. Proceed with layered composite build-up technique



Isolated



Initial Cleanout



Clean Periphery



Chlorhexidine (2%)



MTA/Biodentine



RMGI Liner



Total Etch



Chlorhexidine (2%)



Bitine Ring/Sectional Matrix



Wall Placed - Matrix Removed



Lobes Placed



Occlusion Adjusted

Pulp Exposure

Stop bleeding with NaOCl
MTA/Biodentine
RMGI Liner
RMGI Base (optional)
Restore

0.5 mm from pulp

2% CHX or Gluma
MTA/Biodentine
RMGI Liner
RMGI Base (optional)
Restore

1.0+ mm from pulp

2%CHX or Gluma
RMGI Liner
RMGI Base (optional)
Restore

