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	Steps of cementation (composite/ceramic material)	Additional information
1	Remove the temporary filling with a probe	No drilling, the prepared cavity should not be damaged
2	Clean the cavity	With fluoride-free polishing paste (fluoride inhibits adhesive bonding)
3	Check the onlay in the prepared cavity first without a rubber dam. Make corrections if necessary.	The onlay can be placed on an instrument for insertion (with adhesive or wax). Check the marginal seal and integrity with a probe and contact points with floss. If the onlay does not fit due to tight contact points, it can be adjusted with a polishing disk or diamond finishing bur. There is no occlusal control (fracture risk!).
4	Absolute isolation (rubber dam)	The neighbouring teeth should be included. (Avoid placing the clamp on the prepared tooth if possible).
5	Matrix+ wedge or teflon tape	Polyester strips + plastic wedges. If using teflon tape, no wedge is needed. In this case, the adhesive cement excess has to be cleaned with superfloss from the interproximal areas before light curing!
6	Re-inserting the onlay (with rubber dam)	Make sure that the rubberdam, polyester strips, wedges or teflon don't hinder the insertion
7	Pre-treatment of the inner surface of the onlay Always follow the manufacturer's instructions for the material.	
	VOCO Grandio	Ivoclar e.max CAD
	1. Sandblasting (with aluminium oxide, particle size: 25-50 microns, at 1.5-2 bar pressure) 2. Cleaning with alcohol 3. Silanization: with VOCO "Ceramic Bond" . Attention, this is not the bond; this is the silane! Allow to dry for 60 sec. and then air dry completely.	1. Etching with hydrofluoric acid (20 sec), washing, drying WARNING! Always wear safety goggles and gloves as hydrofluoric acid is highly corrosive! Wash off the acid away from the patient! 2. Silanization: with VOCO "Ceramic Bond" . Attention, this is not the bond; this is the silane! Allow to dry for 60 sec. and then air dry completely.
8	Pretreatment of the cavity. This depends on the type of adhesive cement. Always follow the manufacturer's instructions.	For VOCO Bifix QM resin cement: 1. Selective enamel etching with orthophosphoric acid (15 sec.), washing, drying 2. Application of VOCO Futurabond DC (20 sec. rubbing, air blasting, 10 sec. light cure)

9	Application of adhesive cement (VOCO Bifix QM)	Applying the adhesive cement to the inner surface of the restoration, or into the cavity.
10	Insert the onlay into the prepared cavity	Make sure that it's firmly in place but without excessive pressure
11	Remove excess cement	Once the cement has entered the gel phase (1-2 min), the probe is used to remove the excess. For self-etch or self-adhesive dual curing cement, wait until the self-etching process is finished (at least 20 sec). If teflon tape is used instead of polyester strips, you can use superfloss to remove the excess from the proximal spaces. The onlay must be held in place at all times, don't move it!
12	Polymerisation	Only light cure after the excess cement has been removed. Should be light cured from each direction for at least 20 seconds. In case of vital teeth, make sure you don't overheat the pulp (take breaks, cool the tooth with air). Prior to light curing you can use glycerol gel along the marginal seals to prevent oxygen inhibition.
13	Rubberdam removal, checking occlusion, correction if needed	And also check articulation movements. Corrections can be done with yellow or red diamond burs
14	Finishing, polishing	Finishing: yellow / red diamond, Arkansas stone, Soflex discs. Polishing: rubber (specific rubber polisher for ceramic)