Other methods suggested in the literature to improve the bonding agents’ efficacy are multiple applications and agitation of the adhesives. Consecutive applications of adhesive caused a decrease in nanoleakage, possibly due to the removal of more water and the uptake of additional resin into the collagen fibril meshwork. Agitation of the bonding agents resulted in improved bond strength for the dentin structures only. Most importantly, however, is that the correct time allocated for material placement and drying must be strictly followed according to the manufacturer’s directions.

Conclusion

In vitro studies indicate that the application of a phosphoric acid on enamel prior to the application of a self-etch bonding agent may increase the bonding effectiveness of self-etch adhesives to enamel. Other methods to improve the effectiveness of bonding agents to dentin are multiple applications and agitation of the bonding agents. It is most important, however, to strictly follow the manufacturer’s directions for use. These recommendations are based on in vitro studies. It will be necessary, however, to validate their results in long-term clinical studies to better understand bonding mechanisms and their impact on the clinical outcomes.

References: