

## Material Selection for CAD-DAM and Bonding



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The materials of the dental CAD/CAM can be classified into polymer type and ceramic type. In the case of the polymer series, the milling property is good, but the completeness of the bonding is poor and the strength is not enough to endure the occlusal pressure of the posterior teeth.

Ceramic series can be classified into glass ceramics series and zirconia series. E.max is the representative of glass ceramics. In this lecture, e.max and zirconia will be compared with each other for the advantages and disadvantages.

The strength of the material itself is important, but the adhesion between the tooth and the restoration in restorative treatment is very important for the short and long term success of restorative treatment. In particular, in the case of glass ceramics, it is required to maximize the advantages of adhesion.

This lecture will emphasize that the curing of the adhesive, in particular, is the most important point in bonding, and will discuss a way to increase the longevity of the bonding using C-H. It is not easy to remove excess bonding material during the bonding process when using resin adhesive. Especially, in case of restorations including adjacent proximal surfaces, a short time tack curing method would be used. If spot curing with a 2 mm diameter minitip is used, the resin below the adjacent surface can be more easily removed.

The use of adhesive e.max restorations may make the treatment of cracks easier and more predictable. This case will be also discussed in this lecture.