

## eFiber New Denture Reinforcement



The goal is to stop fractures before they begin. Therefore, in order to increase flexural strength and fatigue resistance, it is important that the reinforcement is placed in the optimal position.

Historically, full mandibular and maxillary dentures fracture in the area of the incisal notch, or midline area beneath the anterior teeth.

The red areas on the image illustrate the areas of tension/strain (most likely to fracture) on a maxillary complete denture utilizing digital 3 dimensional FED analysis.

This study confirms what dental professionals have long understood--the midline is the key area to reinforce.



The stronger **unidirectional eFiber** will be placed underneath the teeth, at the junction of teeth and acrylic. The placement should be **perpendicular to fracture forces**, while being placed on the tension side.

If desired, Perma Mesh may be used in the anterior and posterior of the palate for maxillary dentures.

These fibers are translucent and easily adjusted and polished, allowing for optimal (and uniquely esthetic) placement.

eFiber is ideal to use to strengthen both implant supported and implant retained cases, or any case where the masticatory forces are great, or there is less than the ideal bulk of acrylic resin.



After boil out and wax removal, prepare a groove in the denture teeth to receive the fiber reinforcement.

Paint eFiber Bonding Agent in the groove for maximum bond strength between the efiber and denture teeth.

Allow the bonding agent to dry.



Run a length of wax rope (or floss) along the groove in the tooth setup. This will provide the accurate length of the eFiber reinforcement needed

Use the wax rope to measure the length of Fiber needed and cut the fiber. Keep the fiber protected from light.

Place the eFiber into the prepared tooth areas.

Using the clear silicone matrix, press the fiber into the prepared grooves in the tooth and light cure the fiber to the teeth, one tooth at a time.

The PMMA and Bis-GMA in the fiber will bond to acrylic and composite denture teeth, splinting the teeth together, while at the same time, providing a superior surface for acrylic to bond to.

If multiple pieces of eFiber are needed, gently overlap two sections and press together prior to curing.

Proceed with normal acrylic processing technique.



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