



Atraumatic Restorative Treatment

Brief Summary

Description and Use:

Atraumatic restorative treatment (ART) is an alternative treatment for dental caries. The demineralized and insensitive outer carious dentin is removed with hand instruments only, requiring no electricity or anesthesia.

After removing the carious tooth substance with hand instruments, the cavity is filled with conventional self-hardening glass ionomer cement. Pain and anxiety are significantly lower in both children and adults who receive ART therapy compared to conventional therapy¹⁻³.

Effectiveness and Efficacy:

In a meta-analysis of 5 ART effectiveness studies, 4 of the 5 studies found no statistical difference in survival between glass ionomer cements applied with ART and traditional amalgam restorations in children⁴. Similar results have been reported in older adults (mean age 78.6 years)⁵.

Recommendations for community-based protocol:

ART was developed primarily for use in community and school-based programs. Because electricity is not needed, and the equipment is portable and easily set up, the ART methodology is particularly appropriate for use in schools, nursing homes and personal residences⁶.

Cost:

ART costs less than conventional amalgam restorations. Program costs are 50% less than amalgam and composite resin restorative procedures in a traditional clinical



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setting⁷. Cost savings increase substantially if allied dental care providers perform the ART treatment⁸.