# Guidelines for restoration of fractured anterior teeth

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Te Kaporeihana Āwhina Hunga Whara

## Introduction

These guidelines set out the criteria that must be met for ACC to consider contributing towards the cost of restoration of fractured teeth. The criteria were developed by ACC, in consultation with the New Zealand Dental Association.

Please note that:

- The IPRC Act 2001 provides for ACC to impose prior approval on Regulation treatment items. This has been in place since October 2006 for crowns and is being maintained and extended to include bridges and veneers from 1 December 2010.
- Treatment options that conserve tooth tissue, or the tooth, must be fully evaluated prior to consideration of a crown or veneer. Plastic restorations may be the most appropriate treatment option in some cases.

The aims of the guidelines are to ensure that:

- The client's remaining tooth tissue is conserved wherever possible
- Treatment maximises the life-time potential of the injured tooth
- Crowns and veneers are used only when they are necessary and appropriate.

### Conserve remaining tooth tissue

Restoration of fractured anterior teeth for clients who are covered by ACC must follow a treatment plan that, as a first priority, strives for the conservation of the remaining tooth tissue.

### Provide evidence

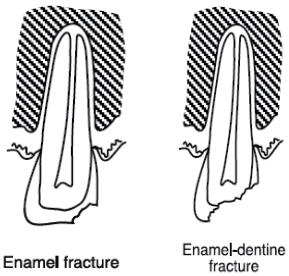
Please provide photographic and x-ray evidence with a prior approval request to ACC if you feel that a tooth should be restored with a crown or a veneer.

### A. Discoloured teeth

Where possible consider these treatments in the following order of priority:

1. Intra-coronal bleaching for endodontically treated teeth
   - The gutta percha must be removed to a level 2-3mm below the cemento-enamel junction and sealed with glass ionomer cement for non-vital bleaching to be effective.
2. External bleaching for vital teeth
   - External bleaching can be successful over several weeks (allow up to 12 weeks to achieve satisfactory result in some cases).
3. Veneers
   - Veneers may be considered if bleaching has failed. Consider composite resin veneers as a first priority ahead of ceramic veneers, because composites do not require the removal of tooth tissue.

## B. Enamel fracture and enamel-dentine fracture




Where possible consider these treatments in the following order of priority:

1. Re-attachment of tooth fragments and/or composite resin restorations
   - Appropriately preserved tooth fragments can be reattached.
   - Both re-attachment of tooth fragments and restoring the tooth structure with composite resin can be expected to last several years when done according to manufacturer's instructions. Both types of restoration can frequently be repeated multiple times before more extensive and destructive treatments are considered or undertaken.

   For single teeth, adequate removal/preparation is required to ensure adequate bonding of new composite. Composite may be failing due to lack of attention to occlusal relationships which may not be improved by converting to porcelain.
2. Veneers
   - A composite resin or ceramic veneer may be considered after multiple fragment rebonding/composite resin restorations have been done and this option is no longer functional.
   - Do not use a veneer on incisal fractures if more than a quarter of the labial surface of the tooth is restored with composite resin, or if you will not be able to get adequate resin bonding of the veneer to the tooth.
3. Crowns
   - A crown may be considered after composite resin restorations and veneer restorations are no longer functional.

## C. Complicated crown fracture




Where possible consider these treatments in the following order of priority:

1. Composite resin restorations
   - There are many complicated crown fractures that can be restored with composite resin.
   - Endodontic treatment does not preclude restoration with composite resin.
   - Wherever possible, the first line restoration should be acid-etch composite resin.
2. Crowns
   - Crowns should only be used for structurally weakened teeth, teeth with large or multiple restorations or teeth with significant form changes.[1]
3. Bridges
   - Bridges require prior approval with study models, radiographs and prior treatment records to ascertain if the claimant is an appropriate candidate for a fixed bridge.

1. Evidence based guidelines for restoration of endodontically treated anterior teeth were presented by specialist endodontist Peter Cathro at the 2005 NZDA meeting in Auckland.
   - Coronal coverage crowns do not significantly improve the success of endodontically treated anterior teeth.
   - Both laboratory and clinical data fail to provide definitive support for the concept that posts strengthen endodontically treated teeth.



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