Fig 1.

Cracked tooth. Upon removal of a large amalgam restoration for which the patient complained of sensitivity to biting, a fracture was noted from mesial to distal.
Tooth Mobility: Evaluation of fremitus (tooth mobility) can be done by placing the forefinger lightly on the buccal of pairs of the teeth and asking the patient to “grind around”. Differences of mobility can be noted during movements.
Tooth mobility: In the previous patient exhibiting fremitus, the occlusion was heavier on the first premolar than on the canine, and the premolar moved during excursive movements. Red articulating marks indicate functional guidance (and should be removed), blue indicates maximum intercusption.
Fig 4.

Abfraction: In this heavy bruxer, the notched-shaped lesions are located sub-gingivally. The tissue must be displaced to access the lesions, indicating the toothbrush abrasion is not the primary cause of the defect.
Fig 5.

Abfraction lesions in the subgingival area measured 2-3 mm in horizontal depth, and had a chisel shaped form.
Chemical Erosion after Abrasion: Once this bruxer has removed the protective covering of enamel, the exposed dentin may be dissolved by saliva or drinks with a pH lower than 6.8 but higher than 5.5 (where the enamel is affected). Restorative care would be to etch, prime and bond the dentin to the enamel without altering the occlusion to retard the wear of the tooth.
Fig 7.

Blue is maximum intercuspation; red is function. The premolar has heavy function rather than anterior guidance. There is evidence of parafunctional habits on all the teeth.
Fig 8.

Heavy function on the premolar (Fig 7) has produced a non-caries abfraction lesion. The patient complained of sensitivity, so a composite restoration was placed. It debonded (failed) in a few weeks. Proper treatment would be to adjust the occlusion on the first premolar (and the molar), then replace the restoration.
Fig 9.

Observation of the patient in function shows contact on the first premolar but not on the second premolar. Splint therapy may be indicated for parafunctional habits.
Fig 10.

Effects of traumatic occlusion on teeth

- Split or cracked teeth, cracked cusp
- Abfraction lesion
- Widened PDL

(not shown: Gingival cleft)
Fig 11.

Gingival Cleft may be associated with abnormal occlusion
Fig 12.

Non-scalloped, no reservoir tray used for bleaching.
Fig 13.

Examples of various tray designs - scalloped, reservoir and non-reservoir
Fig 1.

Cracked tooth. Upon removal of a large amalgam restoration for which the patient complained of sensitivity to biting, a fracture was noted from mesial to distal.

Fig 2.

Tooth Mobility: Evaluation of fremitus (tooth mobility) can be done by placing the forefinger lightly on the buccal of pairs of the teeth and asking the patient to “grind around”. Differences of mobility can be noted during movements.

Fig 3

Tooth mobility: In the previous patient exhibiting fremitus, the occlusion was heavier on the first premolar than on the canine, and the premolar moved during excursive movements. Red articulating marks indicate functional guidance (and should be removed), blue indicates maximum intercuspsation.

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Fig 6.

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(Fig 10)

Effects of traumatic occlusion on teeth

- Split or cracked tooth
- Cracked cusp
- Mobile tooth (fremitus)
- Tooth flexure resulting in Abfraction
- Gingival clef
- Widened PDL

Fig 11.

Gingival Cleft may be associated with abnormal occlusion

Fig 12.

Non-scalloped, no reservoir tray used for bleaching.

Fig 13.

Examples of various tray designs - scalloped, reservoir and non-reservoir