Extraction technique of the maxillary molars

The maxillary first molar

- Anatomy review
  - The maxillary first molar has three large and strong roots.
  - Buccal roots are usually close together, and the palatal root diverges widely toward the palate.
  - If the two buccal roots are also widely divergent, it becomes difficult to remove this tooth by closed extraction (open extraction should be considered)
  - Once again, the overlying alveolar bone is similar to that of other teeth in the maxilla; the buccal plate is thin and the palatal cortical plate is thick and heavy.

- The technique
  - The upper molar forceps are adapted to the tooth and are seated apically as far as possible in the usual fashion.
  - Strong, slow, steady buccal pressure expands the buccocortical plate and tears the periodontal ligament fibers that hold the palatal root in its position.
  - Palatal forces should be used but kept to a minimum, because this is the force that fractures the palatal root.
  - Rotational forces are not useful for extraction of this tooth because of its three roots.
  - The tooth is delivered in the bucco-occlusal direction.

- Very important notes:
  - When evaluating this tooth radiographically, the dentist should note the size, curvature, and apparent divergence of the three roots.
  - Additionally, the dentist should look carefully at the relationship of the tooth roots to the maxillary sinus.
  - If the sinus is in proximity to the roots and the roots are widely divergent, sinus perforation caused by removal of a portion of the sinus floor during tooth removal is increasingly likely.
  - If this appears to be likely after preoperative evaluation, the surgeon should strongly consider a surgical extraction.
  - As mentioned in the discussion of the extraction of the maxillary first premolar, it is preferable to fracture a buccal root rather than a palatal root (because it is easier to retrieve the buccal roots). Therefore, if the tooth has widely divergent roots and the dentist suspects that one root may be fractured, the tooth should be luxated in such a way as to prevent fracturing of the palatal root.
  - The dentist must minimize palatal force because this is the force that fractures the palatal root.

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<th>So, for the maxillary first molar we have three movements</th>
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<td>1- Strong, slow, steady buccal pressure</td>
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<td>2- Minimum Palatal forces</td>
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<td>3- Tooth delivered in bucco-occlusal direction</td>
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Palatal forces should be minimized, because it will fractures the palatal root.

Rotational forces are not useful for extraction of this tooth because of its three roots.
The maxillary second molar

- The anatomy of the maxillary second molar is similar to that of the maxillary first molar except that the roots tend to be shorter and less divergent, with the buccal roots more commonly fused into a single root.
- This means that the tooth is more easily extracted by the same technique described for the first molar.

The maxillary third molar

- The erupted maxillary third molar frequently has conic roots.
- The tooth is usually easily removed because buccal bone is thin and the roots are usually fused and conic, so it is usually extracted with the No. 210S forceps, which are universal forceps used for the left and right sides.
- The erupted third molar is also frequently extracted by the use of elevators alone.
- Clear visualization of the maxillary third molar on the preoperative radiograph is important because the root anatomy of this tooth is variable and often small, dilacerated, hooked roots exist in this area.
- Retrieval of fractured roots in this area is difficult due to more limited access.
Figure 7-61

C, Luxation is begun with strong buccal force. D, Lingual pressures are used only moderately. E, The tooth is delivered in the bucco-occlusal direction.