Extraction of Teeth (Exodontia)

Indications and contraindications and the principles of extraction

Indications and contraindications

The extraction of teeth, is a surgical operation involving bony and soft tissues of the oral cavity, access to which is restricted by the lips and cheeks, and further complicated by the movement of the tongue and mandible.

With the great majority of extractions can be safely done in the *dental clinic*, some patients require *hospitalization* for this surgery because of systemic conditions which make them poor surgical risks.

Tooth Extraction : The ideal tooth extraction is the ***painless removal*** of the whole tooth, or tooth-root, with ***minimal trauma*** to the investing tissues, so that the wound heals uneventfully and no postoperative prosthetic problems is created.

Indications for tooth extraction:

1. Caries (if conservative treatment has failed or is not indicated and teeth that hopelessly carious).
2. Teeth with non vital pulps, or acute or chronic pulpitis when root canal surgery is not indicated, or pulpal lesions (e.g. pulpitis, "pink spot", or pulpal hyperplasia).
3. In cases of severe periodontal disease in which excessive bony support of the teeth is destroyed.
4. Periapical infection when teeth are not treatable by apicectomy.
5. Attrition of teeth which could not be repaired.
6. Teeth mechanically interfering with the placement of restorative appliances.
7. Hypoplastic teeth.
8. A tooth in the fracture line in fractured mandible.
9. A tooth root or crown of the tooth is fractured.

10. When the tooth is partially dislocated from its socket.
11. Sometimes a healthy, sound tooth must be extracted as part of an overall orthodontic management.
12. For prosthetic treatment plan.
13. For in orthognathic surgery_in the mandible or maxilla.
14. Before starting a course of therapeutic irradiation for oral malignancy.

Contraindications for extraction of teeth:

(and to other oral surgery operations):

Dental Practitioner should take a good precaution before embarking on extraction of a tooth to avoid unwanted complications, unless taking good measures to correct the underlying cause or causes.

A. Local contraindications

B. General Contraindications

Local contraindications:

1. Acute gingival infections
2. Acute pericoronal infection such as is frequently found around partially erupted lower third molars.
3. Extraction of maxillary premolars and molars is contraindicated during acute maxillary sinusitis

General Contraindications:

1. **Cardiac diseases**.
2. **Subacute bacterial endocarditis**; Fever of unexplained origin is rarely cured is often worsened by extraction. One possibility is an

undiagnosed subacute bacterial endocarditis, a condition that would be complicated considerably by an extraction.

3. **Rheumatic heart disease**

4. **Patients on anticoagulant therapy :** (a) prolonged postoperative hemorrhage, (b) if anticoagulant therapy is discontinued they may risk a possible serious or fatal thrombo-embolic accident.

5. **Blood dyscrasia** (leukemia, hemorrhagic purpura) **.**

6. **Jaundice** (obstructive jaundice, hemolytic or non-obstructive jaundice, and jaundice due to infectious hepatitis). In addition to the possibility of aggravating the etiologic factor responsible for the jaundice by extraction of teeth, there is the danger of prolonged hemorrhage.

7. **Diabetes:** uncontrolled diabetes is contraindication to extraction of teeth (or any form of oral surgery), because this disease predispose to the development of infection in the wound with extension into the surrounding tissues in the following ways (a) Peripheral circulation is reduced somewhat owing to the deposition of cholesterol into the peripheral vessels (premature arteriosclerosis), (b) The high percentage of sugar in the body fluids helps bacterial growth by supplying the organisms with a rich source of food. Hence before extraction of teeth or other forms or oral surgery the diabetic patient should have his blood sugar controlled by diet or insulin.

8. **Syphilis:** the syphilitic patients resistance is lowered, so that he is more liable to the development of postoperative infection because of delayed healing.

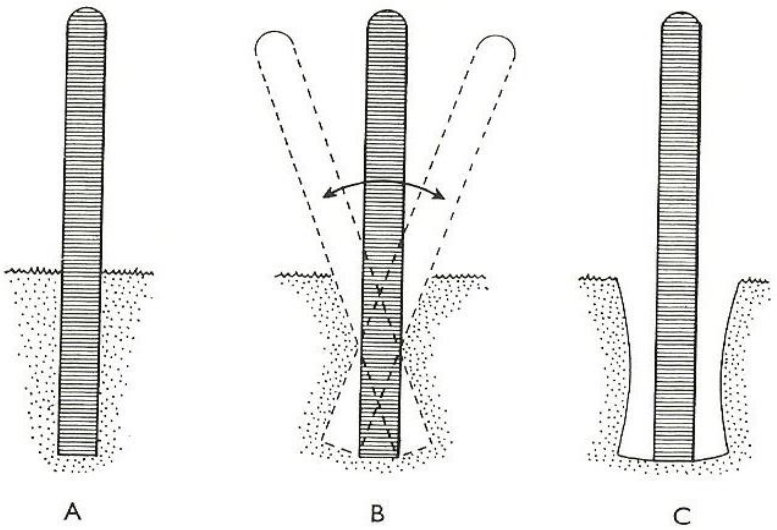
9. **Psychosis** and **neurosis** reflect a nervous instability that complicates exodontias.

The principles of tooth extraction

The mechanical principles of extraction of teeth: the ***three*** mechanical principles of extraction are:

1. Expansion of the bony socket
2. The use of lever and fulcrum
3. The insertion of a wedge or wedges between the tooth-root and the bony socket wall.

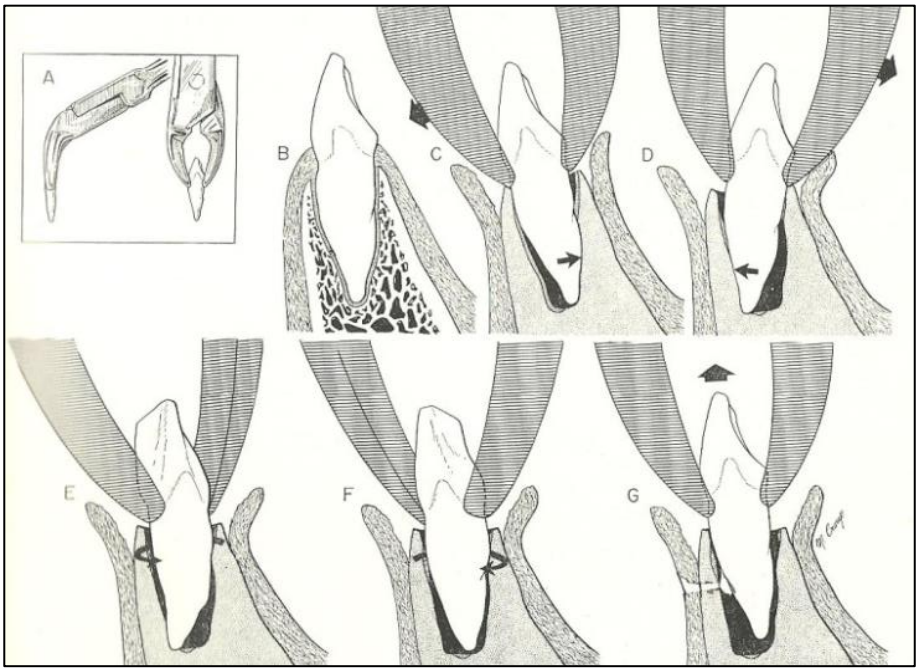
1. Expansion of the bony socket_to permit the removal of its contained tooth. This is achieved by using the tooth as the dilating "instrument", and is the most important in factor in "forceps extraction".



Expansion of the bony socket

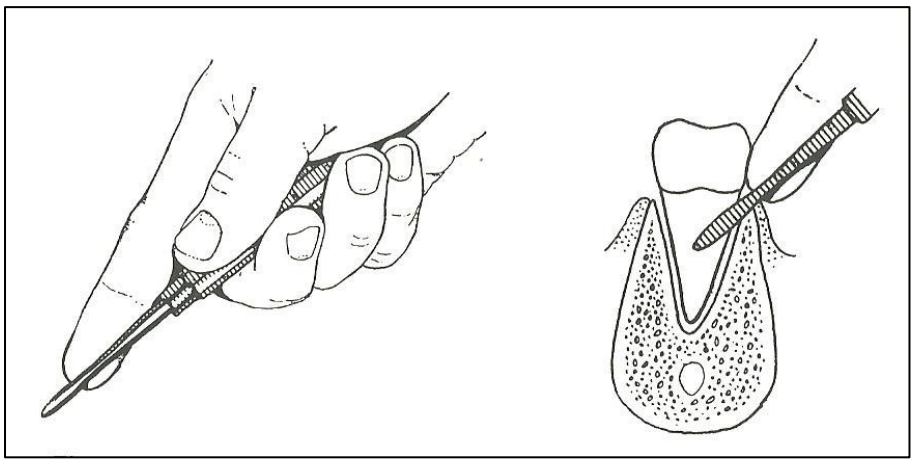
To be successful it requires that sufficient tooth be present to be firmly grasped by the forceps blades. The root pattern of the tooth must be such that it is possible to dilate the socket sufficiently to permit the complete dislocation of the tooth from its socket. The socket can be

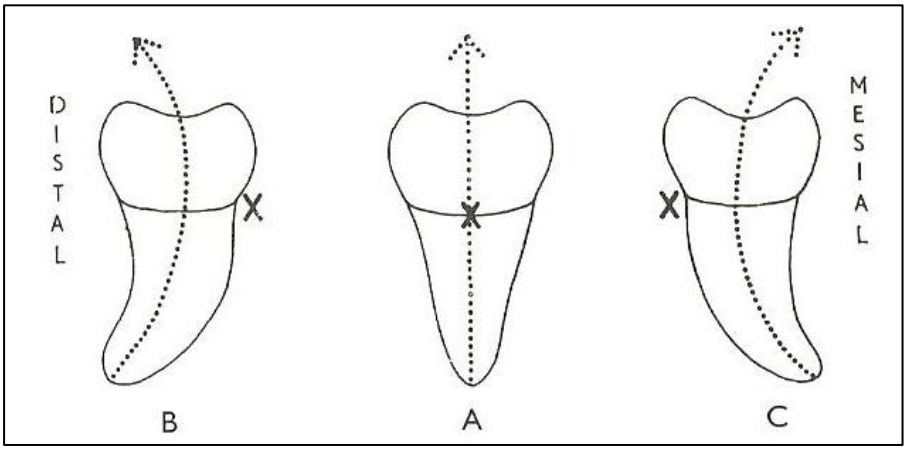
dilated only if the bone of which it is composed is sufficiently elastic to permit such expansion. This property is maximal in young bone and decreases with age.



Forces applied to extract the tooth are: buccal movement, lingual movement, and slight rotation.

2. The use of a lever and fulcrum to force a tooth or root out of the socket along the path of least resistance. This is the basic factor governing the use of elevators to extract teeth and roots.





3. **The insertion of a wedge or wedges** between the tooth-root and the bony socket wall, thus causing the tooth to rise in its socket. The blade of these instruments are forced down the periodontal membrane between the tooth-root and the bony socket wall, may cause the tooth to rise in its socket.