Principles of management of impacted teeth

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the tooth become impacted because of:

- Inadequate dental arch length and space
- Adjacent teeth
- Dense overlying bone
- Excessive soft tissue
General rule:

All impacted teeth should be removed unless removal is contraindicated.
The most common impacted teeth:

- third molars
- maxillary canines
- mandibular premolars
Indications for removal of impacted teeth
-prevention of periodontal disease
-prevention of dental caries
-prevention of pericoronitis
-prevention of root resorption
-impacted teeth under a dental prosthesis
-prevention of odontogenic cysts and tumors
-prevention of fracture of the jaw
- facilitation of orthodontic treatment

- treatment of pain of unexplained origin

- optimal periodontal healing
Indications for removal of impacted teeth:

- extremes of age
- compromised medical status
- probable excessive damage to adjacent structures
Classifications of impacted teeth:

- **angulation**: mesioangular impaction
  vertical impaction
  horizontal impaction
  distoangular impaction

- relationship to anterior border of ramus
- relationship to occlusal plane
mesioangular impaction
Horizontal impaction
Vertical impaction
Distolingual impaction
Gregory and pell classification (class 1)
Gregory and pell classification (class2)
Gregory and pell classification (class 3)
Gregory and pell classification (classe A)
Gregory and pell classification (class B)
Gregory and pell classification (class C)
Mesioangular and class I and class II
Horizontal and class 2 and class B
Distoangular and class 3 and class C
Root morphology:
-length of the root
-single, conic root/separate, distinct root
-curvedaure of the tooth
- direction of tooth root curvature
- compare total width of the roots in the mesiodistal direction with the width of the tooth at the cervical line
- assessment of periodontal ligament space
- Size of follicular sac
- Density of surrounding bone
- Contact with mandibular second molar
-relationship to inferior alveolar nerve
-nature of overlying tissue
Factors that make impaction surgery less difficult:
1- mesioangular position
2- class 1 ramus
3- class A depth
4- roots one third to two third formed
5- fused conic roots
6- wide periodontal ligament
7- large follicle
8- elastic bone
9- separated from second molar
10- separated from inferior alveolar nerve
11- soft tissue impaction
Factor that make impaction surgery more difficult:
1. distoangular
2. class 3 ramus
3. class C depth
4. long, thin roots
5. divergent curved roots
6. narrow periodontal ligament
7. thin follicle
8. dense, inelastic bone
9. contact with second molar
10. close to inferior alveolar canal
11. complete bony impaction
Surgical procedure

-envelope incision is most commonly used to reflect soft tissue for removal of impacted third molar
Envelope flap is most commonly used for removal of maxillary impacted teeth
Bone overlying occlusal surface of tooth is removed with a fissure bar.
Distal aspect of crown is then sectioned from tooth
The crown is then sectioned from roots of tooth and delivered from socket.
Small straight elevator no. 301 is then used to elevate the mesial aspect of the tooth by rotary and lever type of motion.
There are 4 impacted teeth in this panoramic view.
Multiple impacted teeth
Cleidocranial dysplasia
Impacted second and third molar
FIGURE 7-7 Labially impacted canine exposed using an apically repositioned flap.
FIGURE 7-10  A, Geminated tooth no. 8. B, After removal of abnormal tooth no. 8 and transplantation of erupted tooth no. 9, the unerupted tooth no. 9 is expected to erupt. C, Radiograph of geminated tooth no. 8. D, Radiograph of duplicated tooth no. 9.