



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

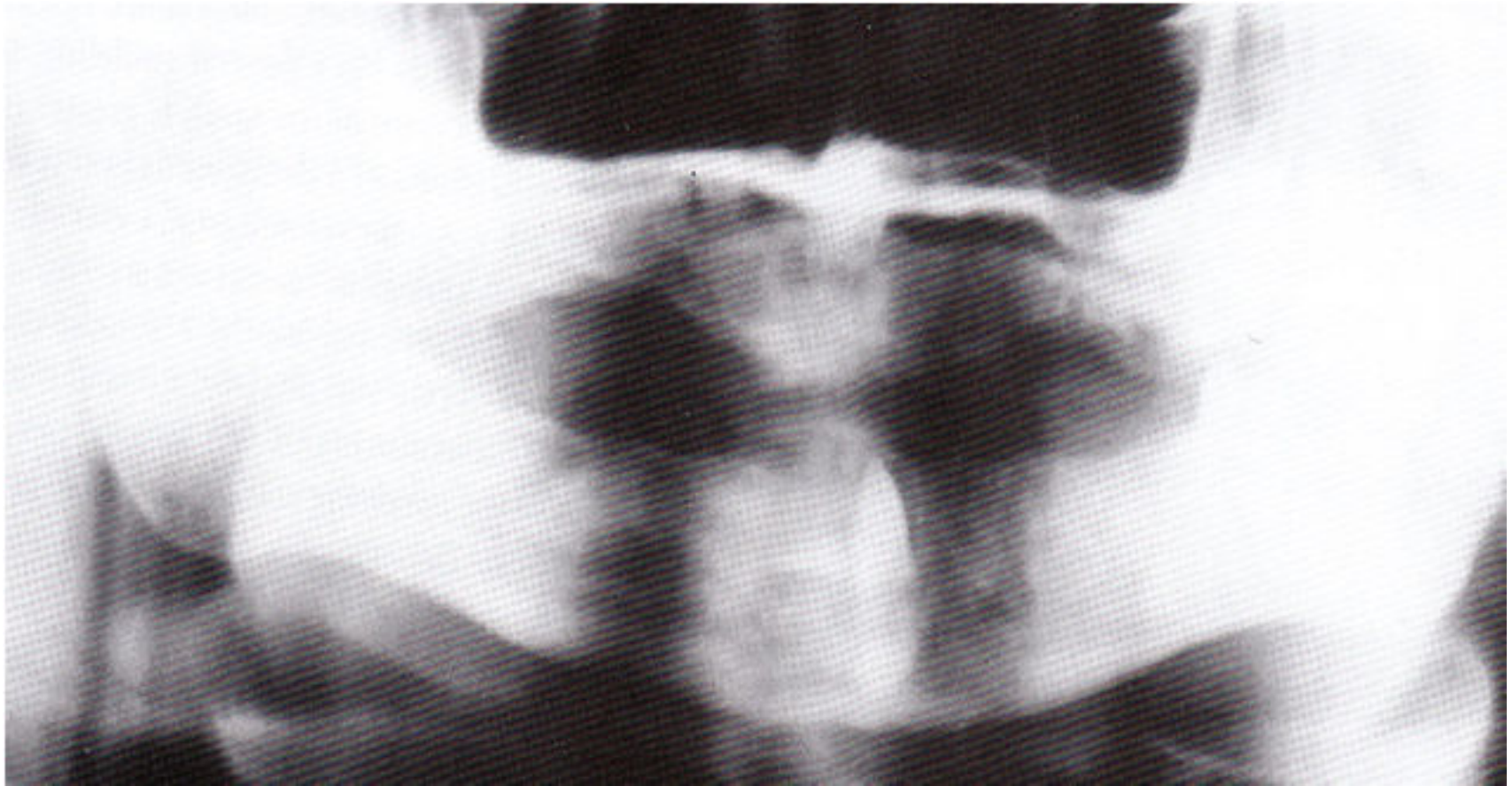
General rule:

**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

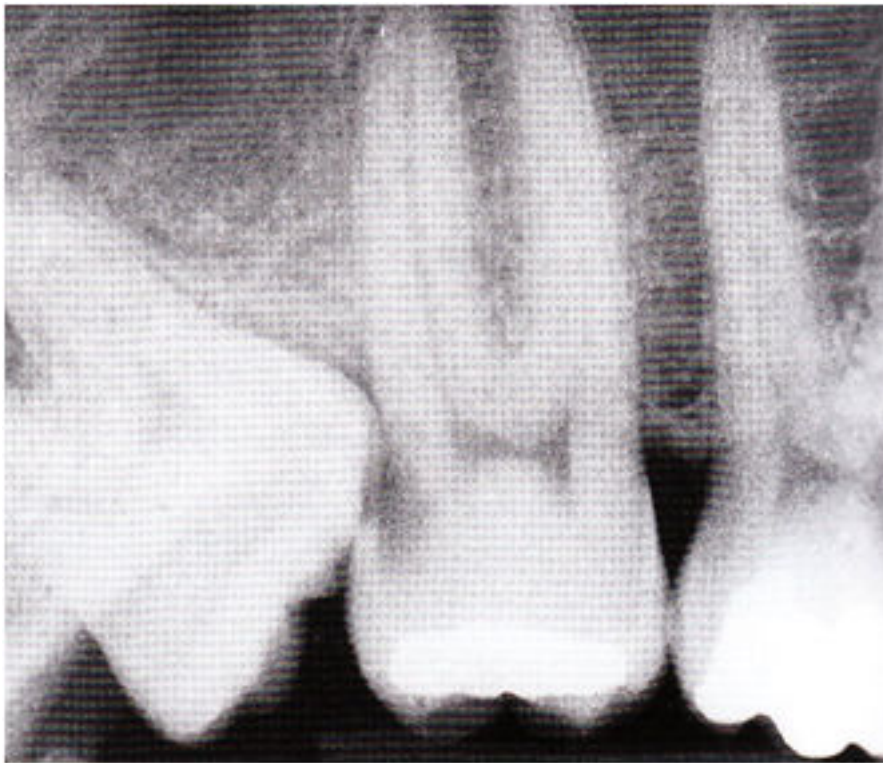


-prevention of periodontal disease

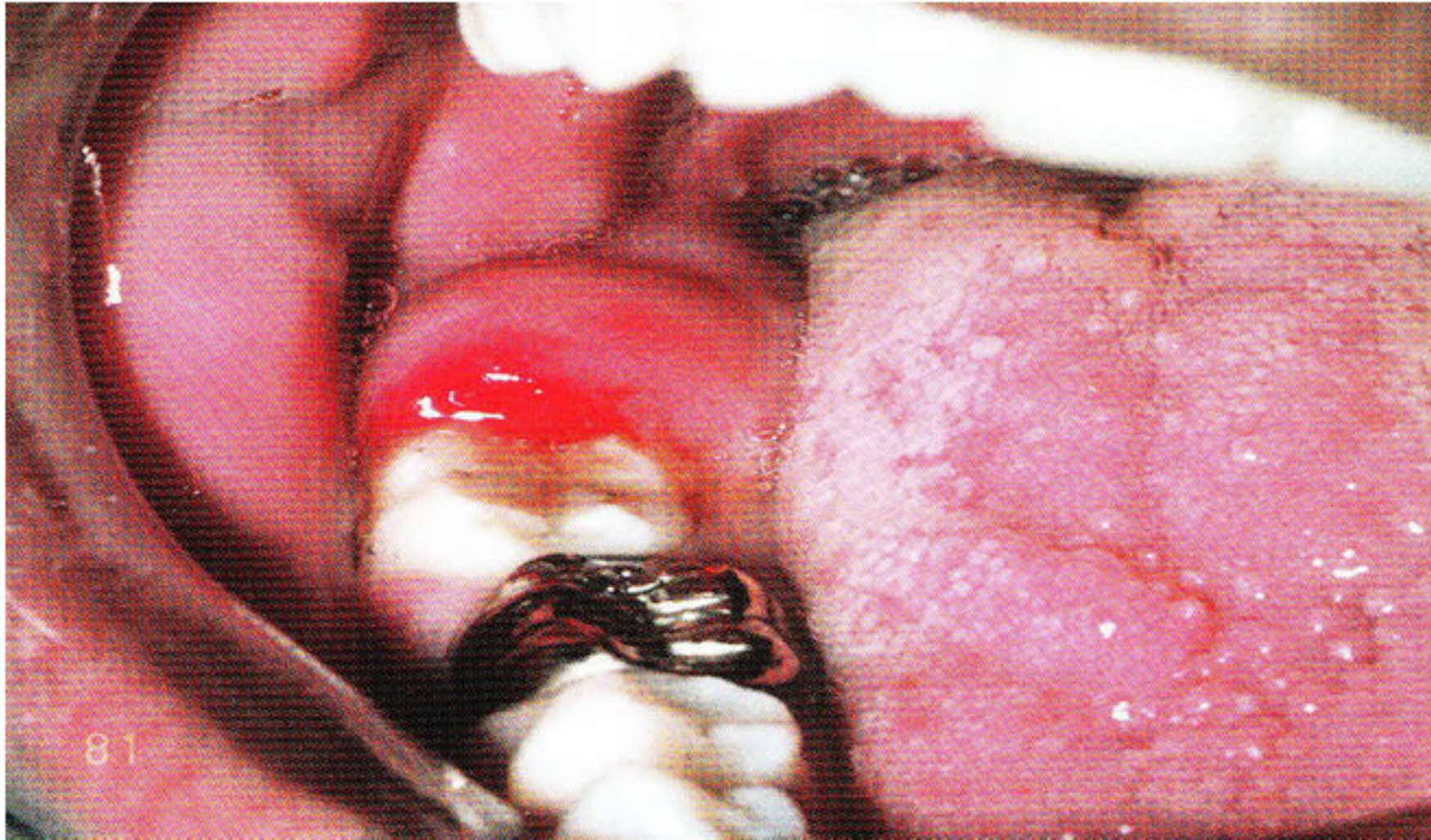




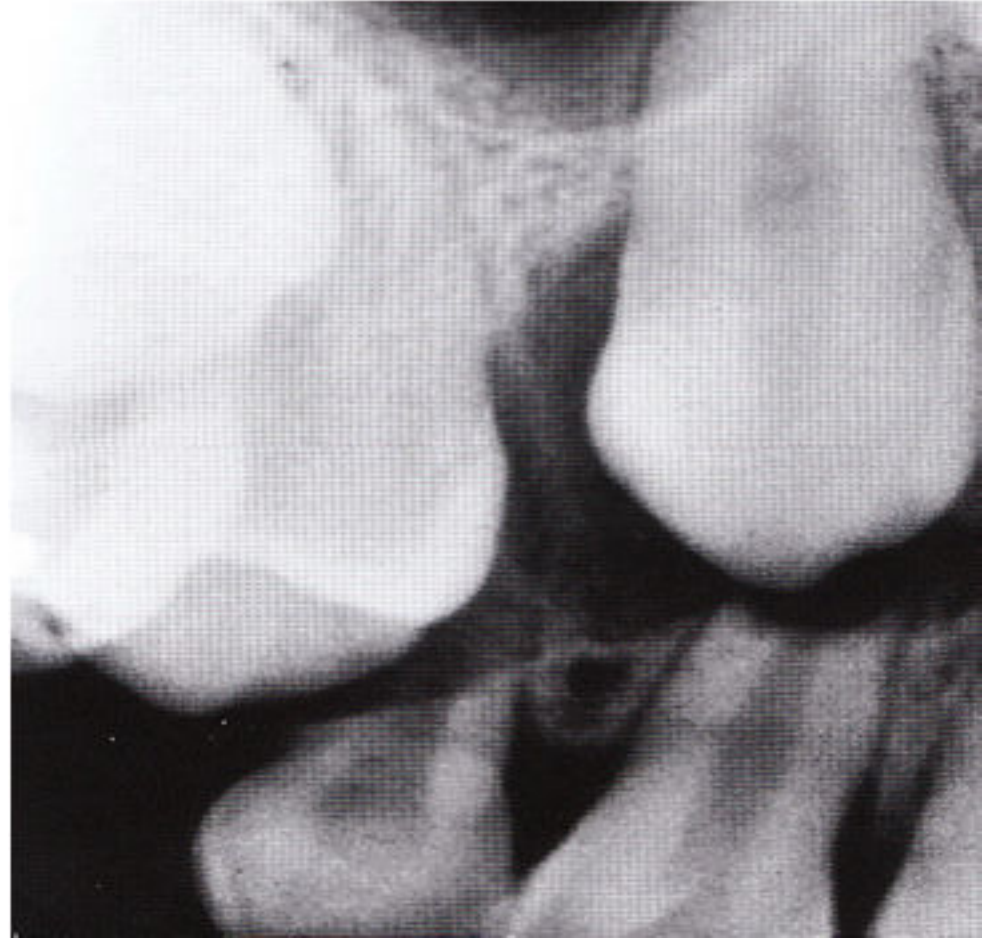
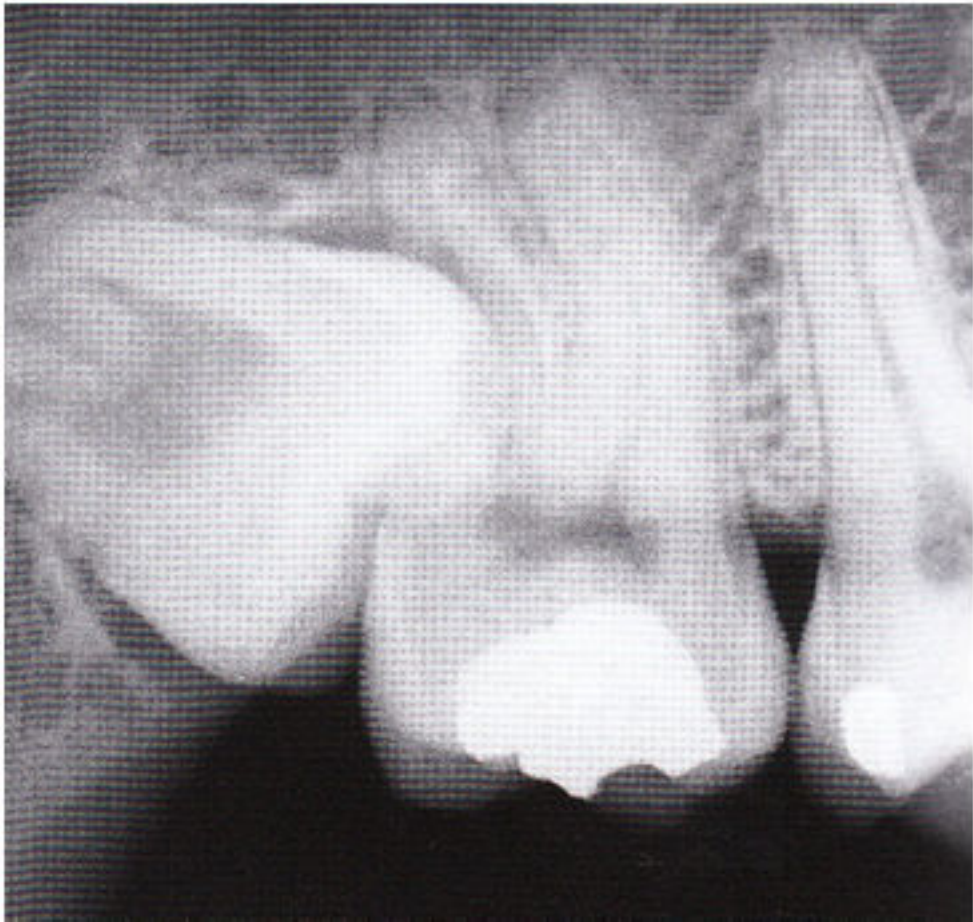
-prevention of dental caries



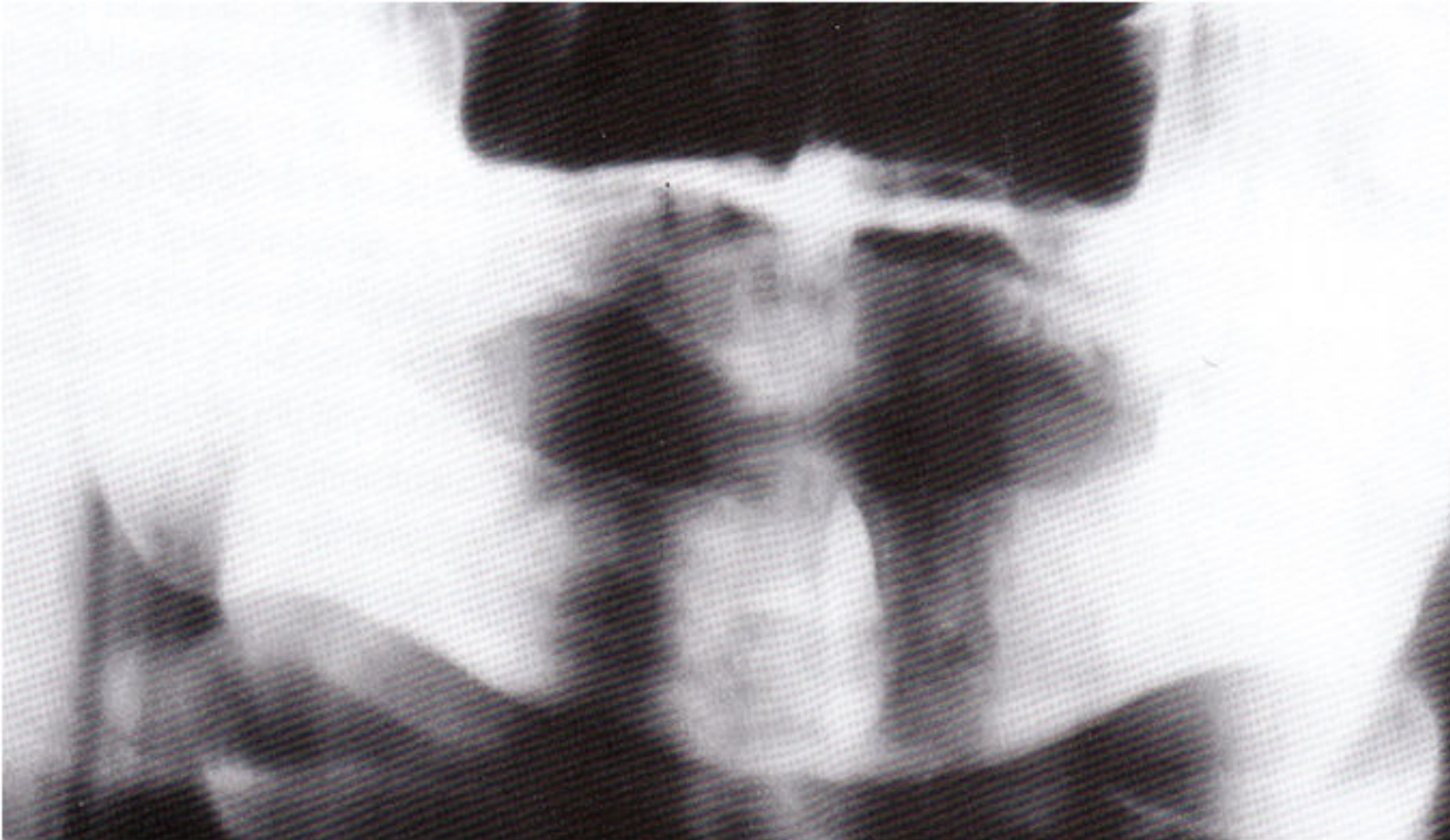
-prevention of pericoronitis



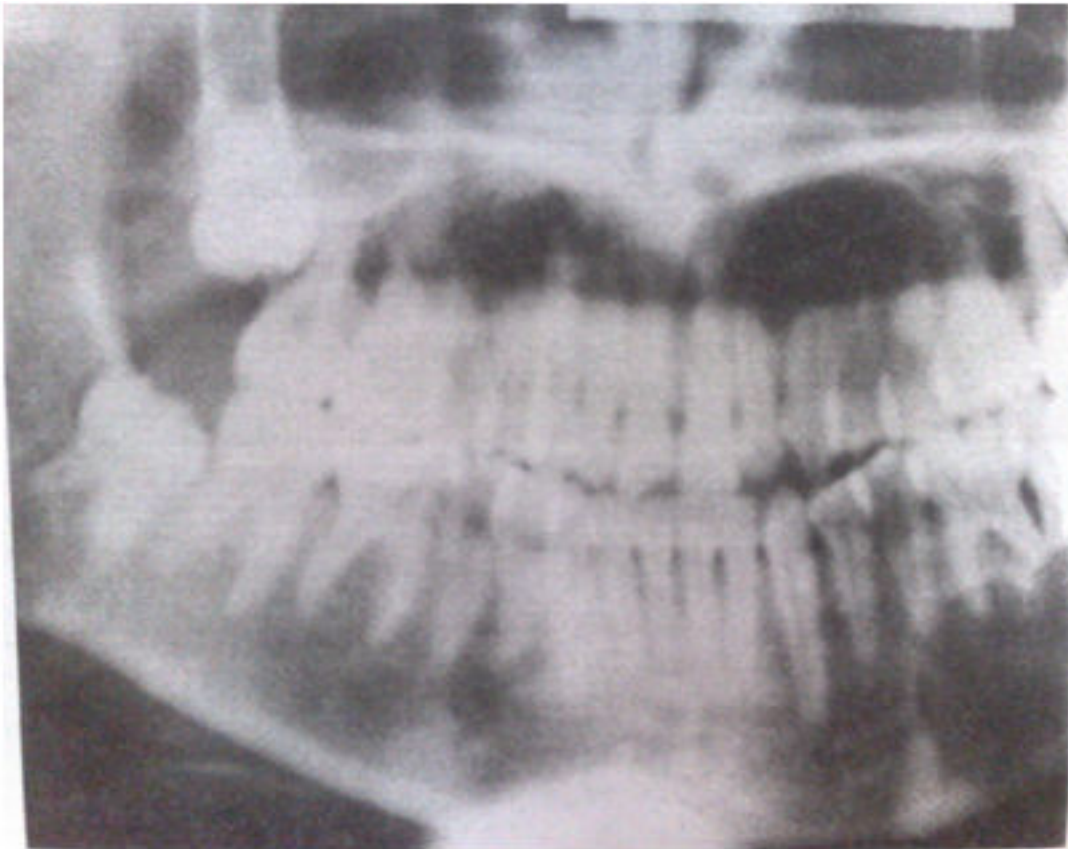
-prevention of root resorption



-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

Contraindications 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

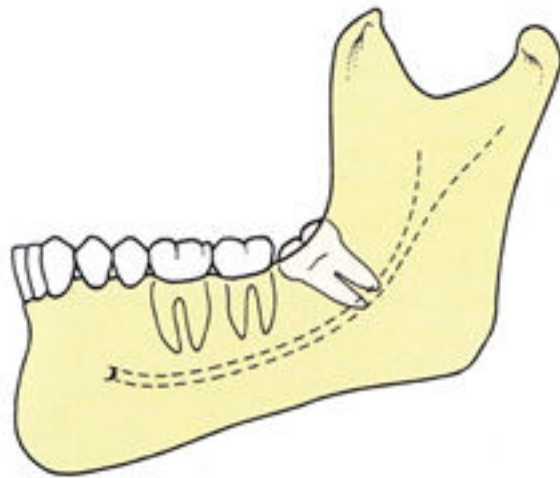
horizontal impaction

distoangular impaction

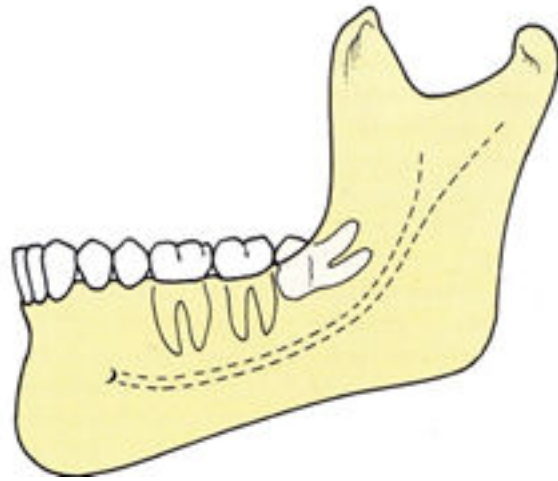
-relationship to anterior border of ramus

-relationship to occlusal plane

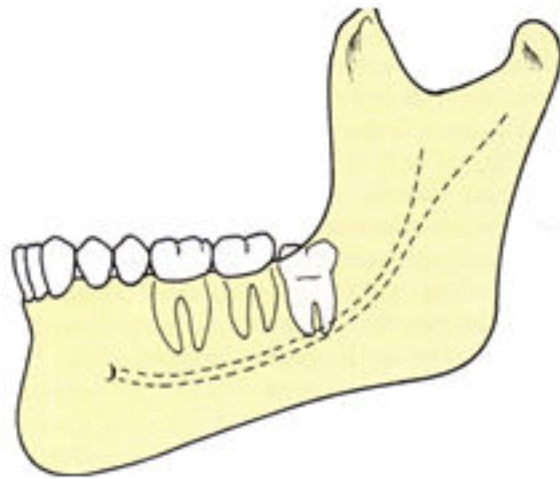
mesioangular impaction



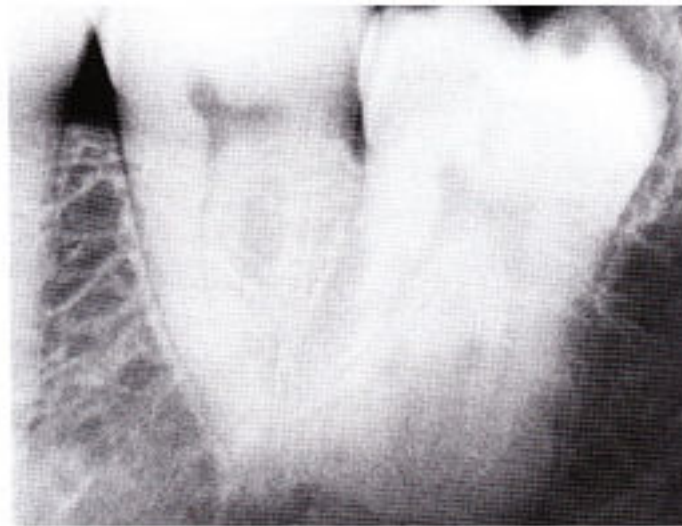
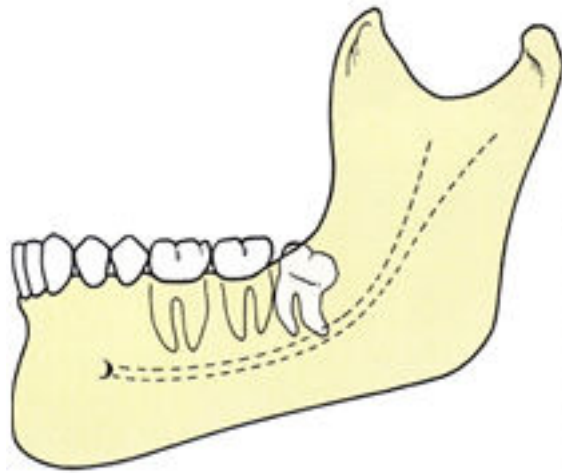
Horizontal impaction



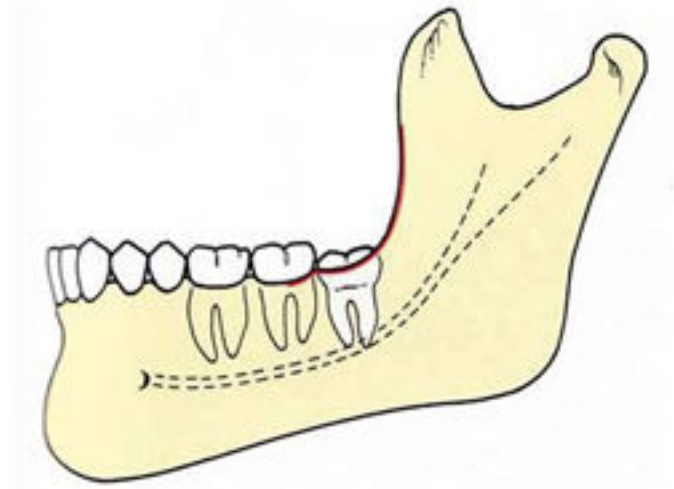
Vertical impaction



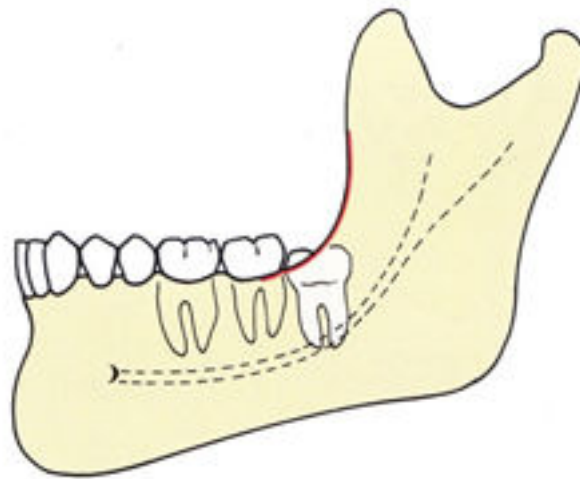
Distolingual impaction



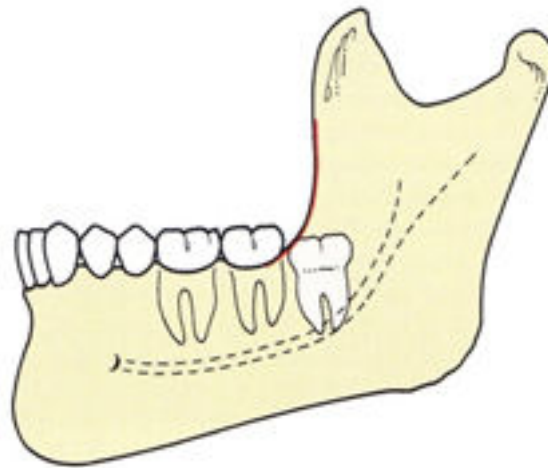
Gregory and pell classification (class1)



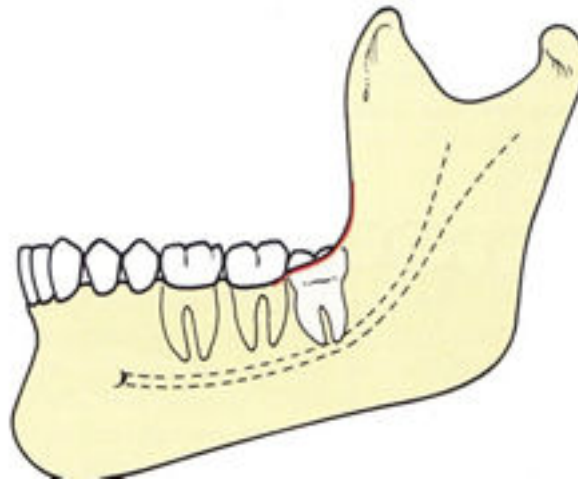
Gregory and pell classification (class2)



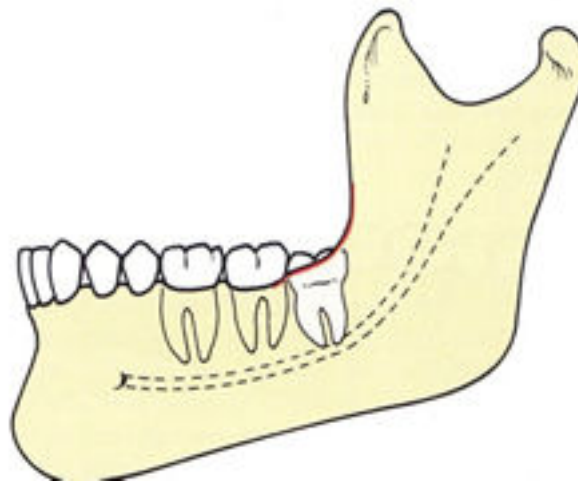
Gregory and pell classification (class3)



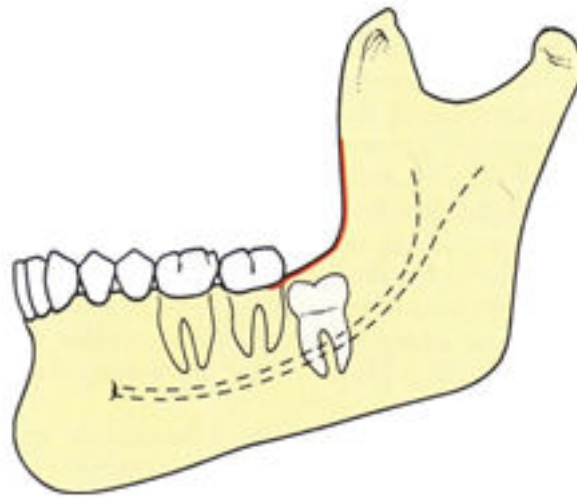
Gregory and pell classification(classeA)



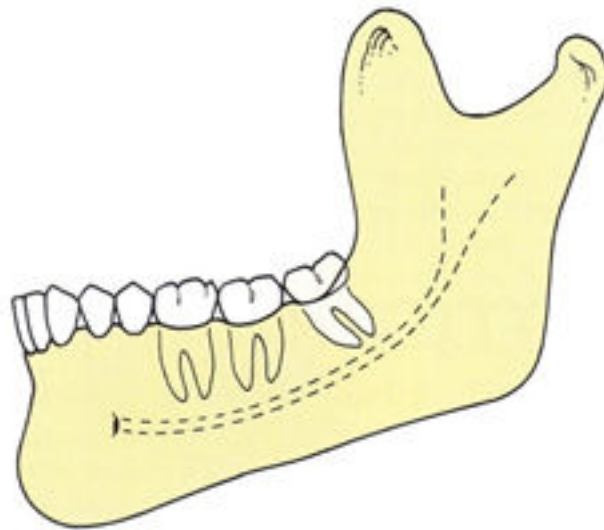
Gregory and pell classification(classB)



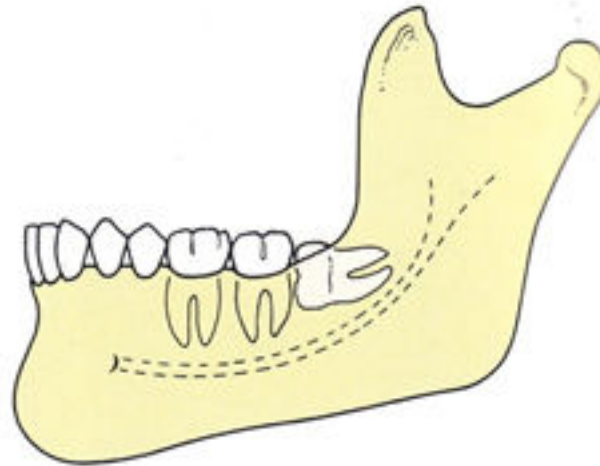
Gregory and pell classification(classC)



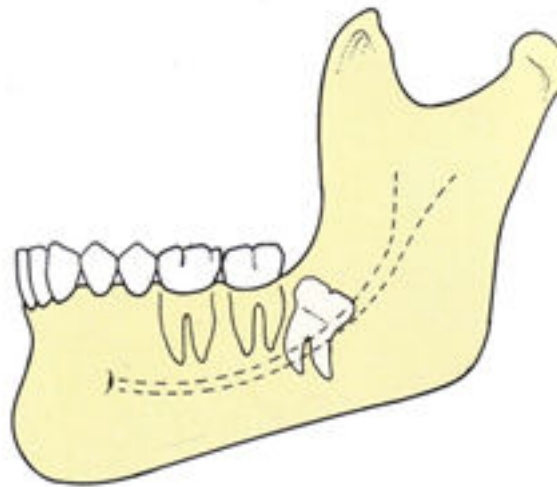
Mesioangular and class1 and classA



Horizontal and class2 and classB

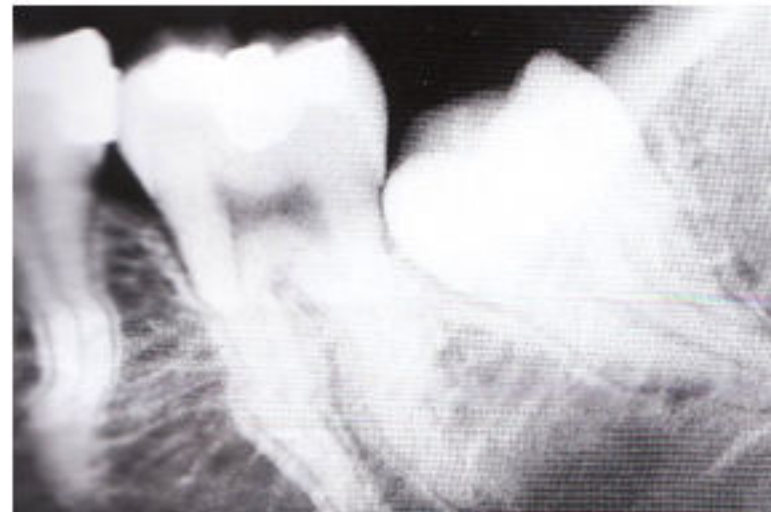
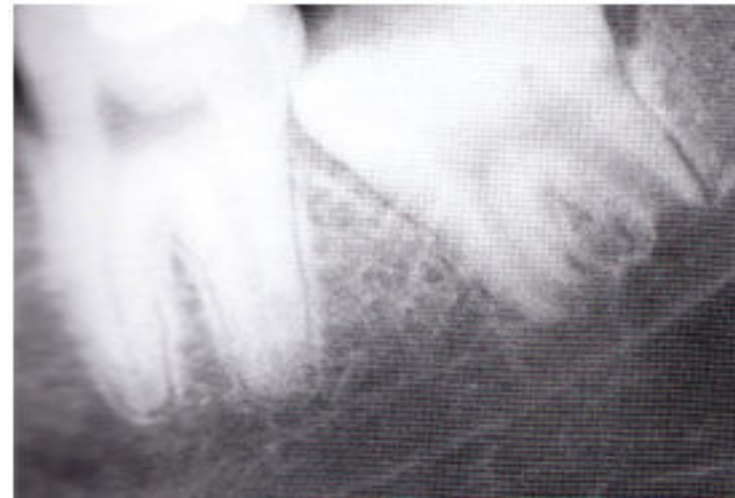
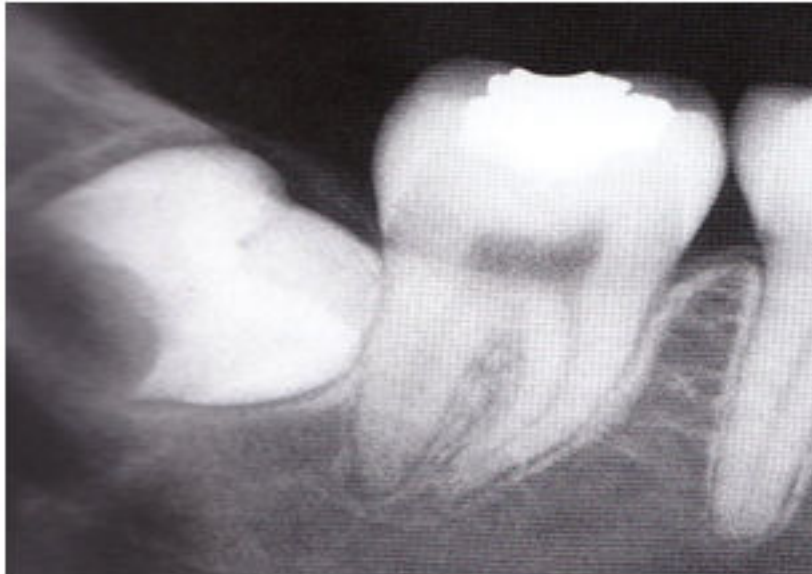


Distoangular and class3 and classC



Root morphology:

- length of the root
- single, conic root/separate, distinct root
- curvature 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-distangular

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

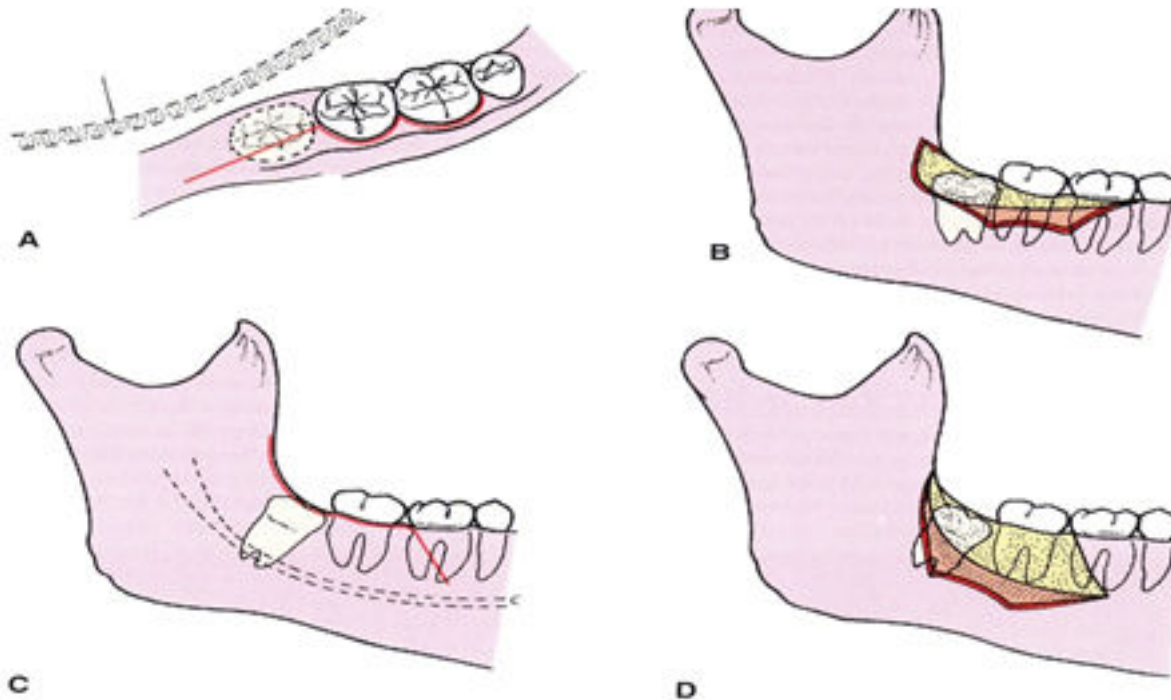
9-contact with second molar

10-close to inferior alveolar canal

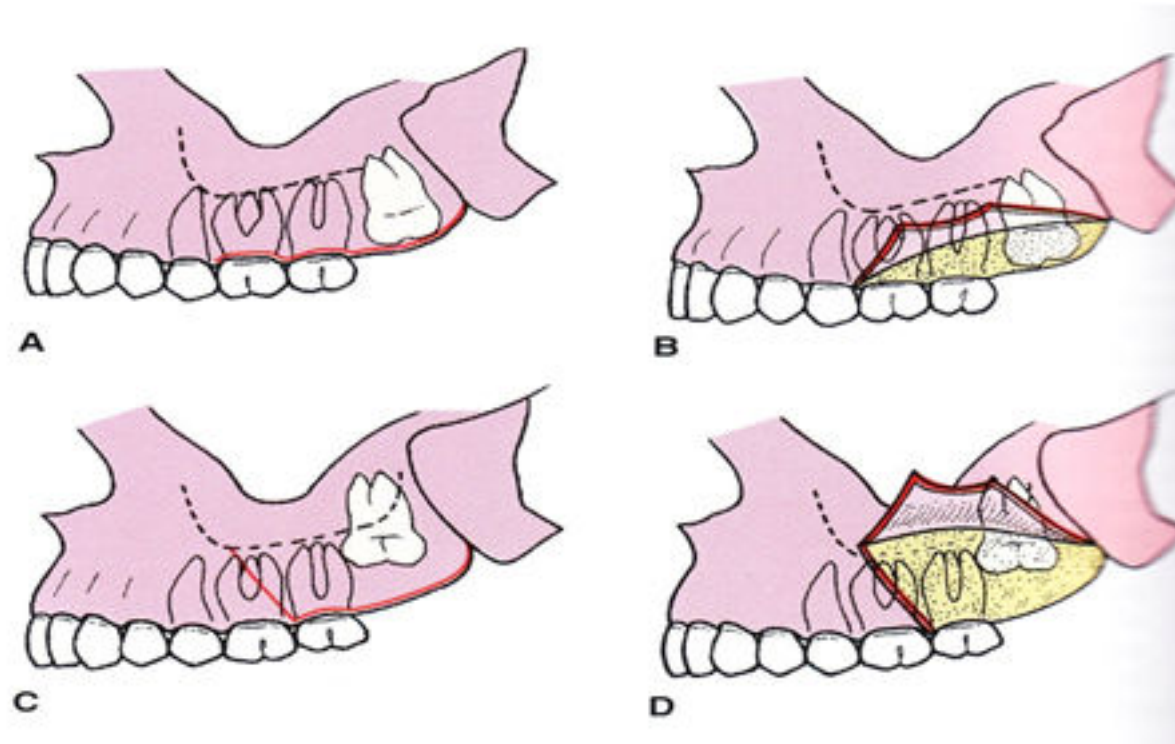
11-complete bony impaction

Surgical procedure

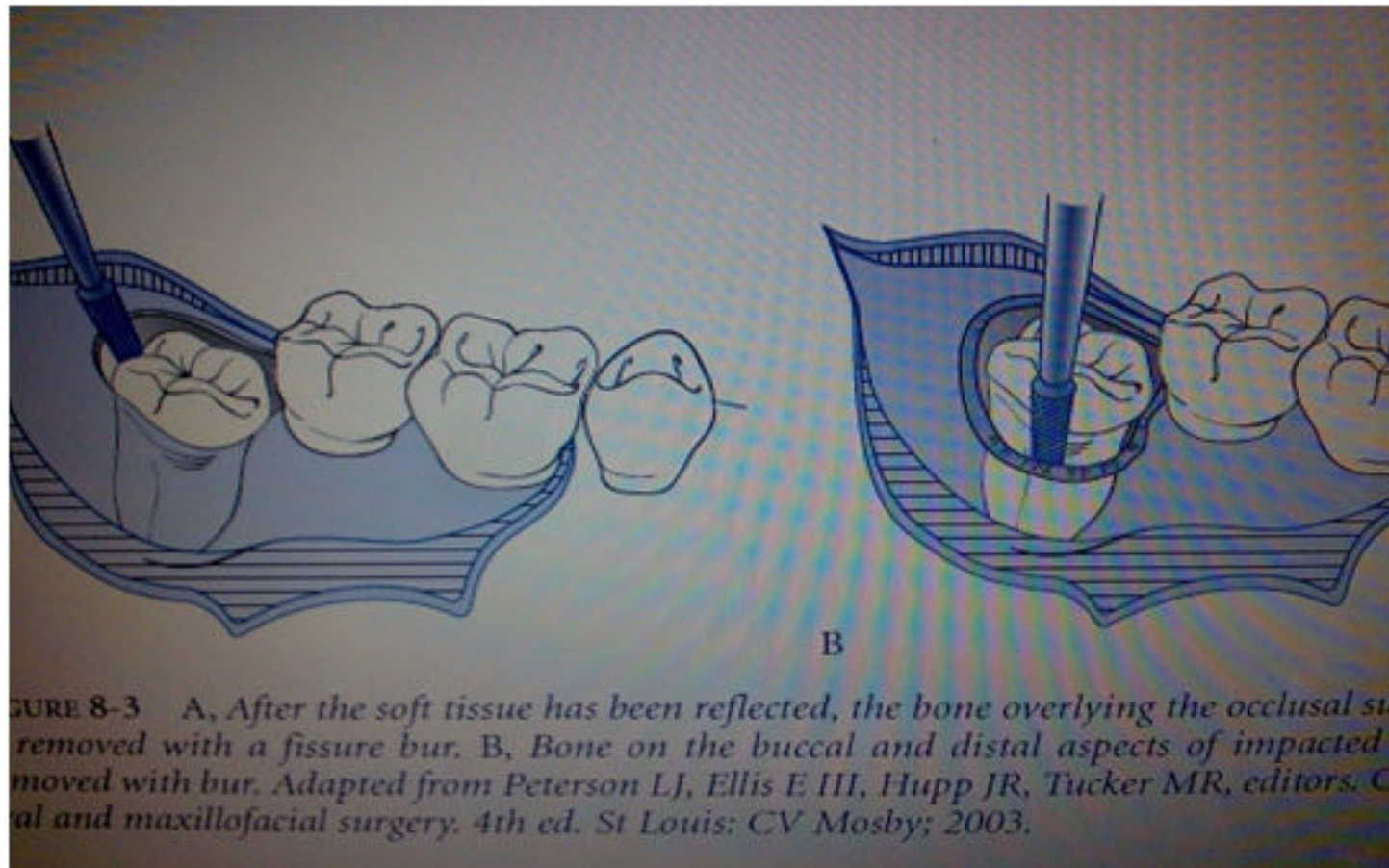
- envelope incision is most commonly used to reflect soft tissue for removal of impacted third molar



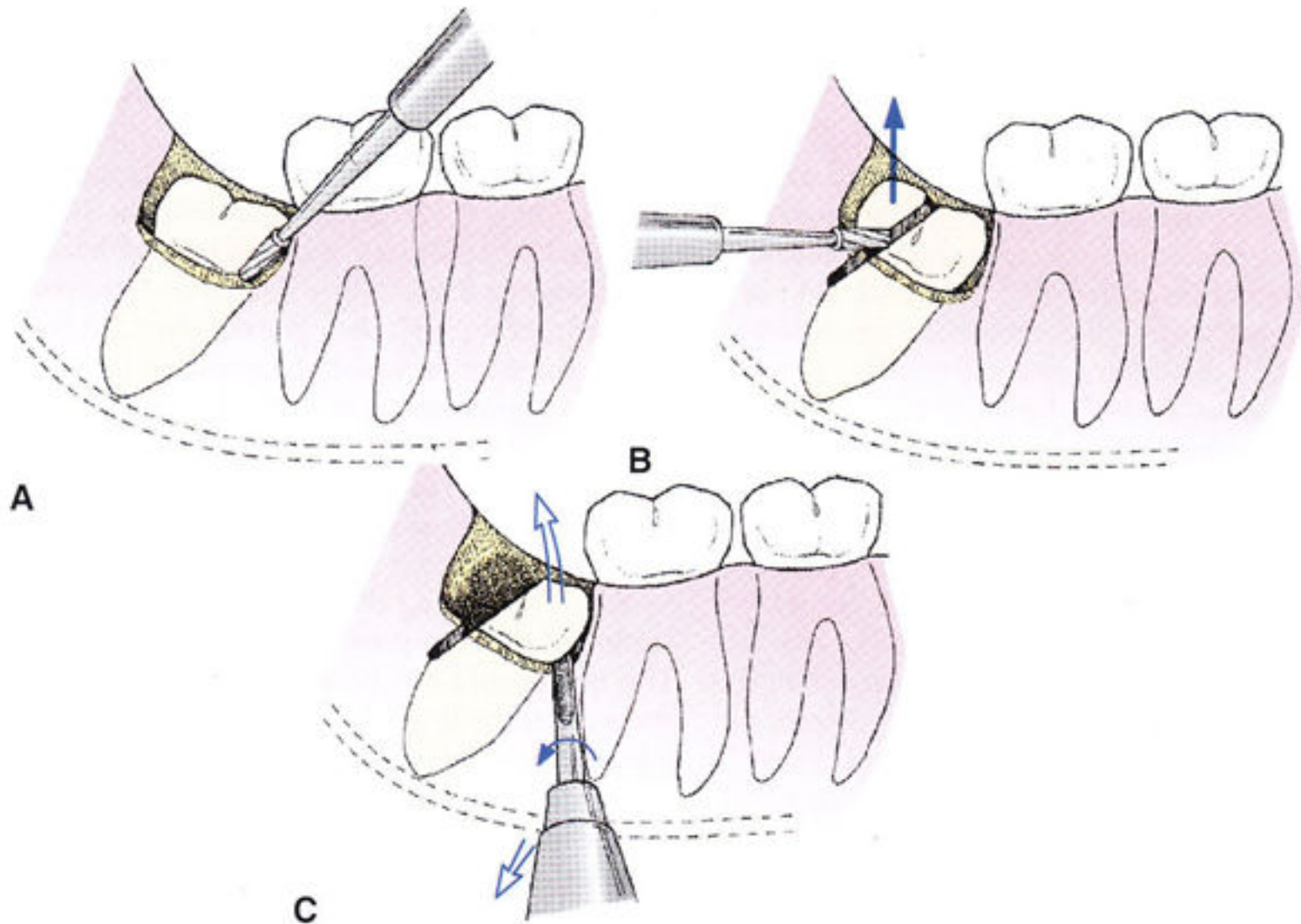
Envelope flap is most commonly used for removal of maxillary impacted teeth



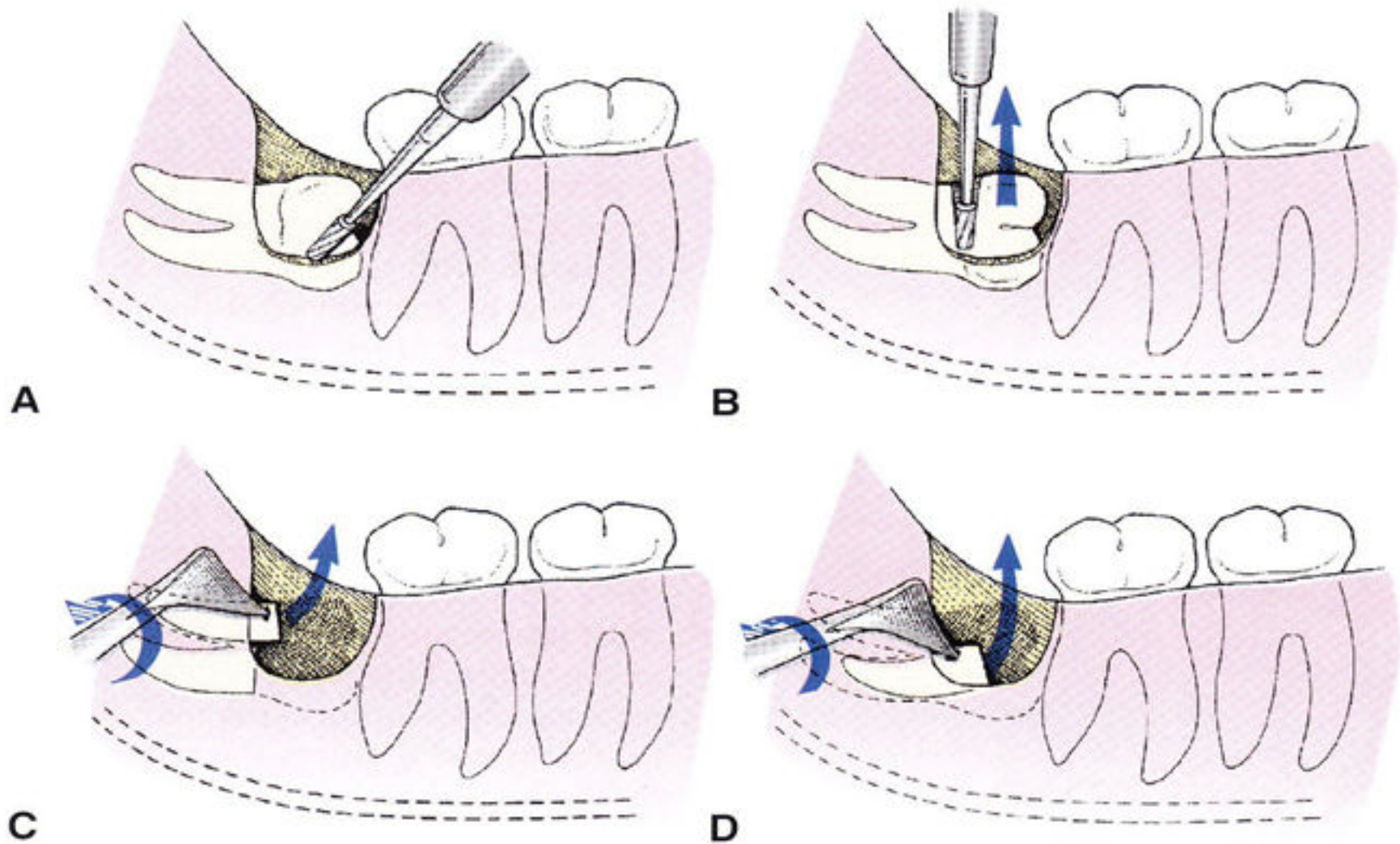
Bone overlying occlusal surface of tooth is removed with a fissure bar



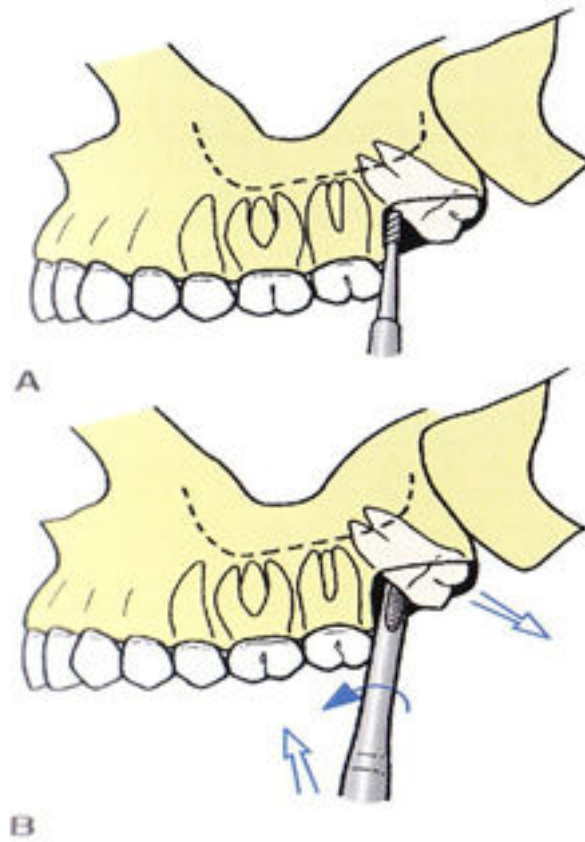
Distal aspect of crown is then sectioned from tooth

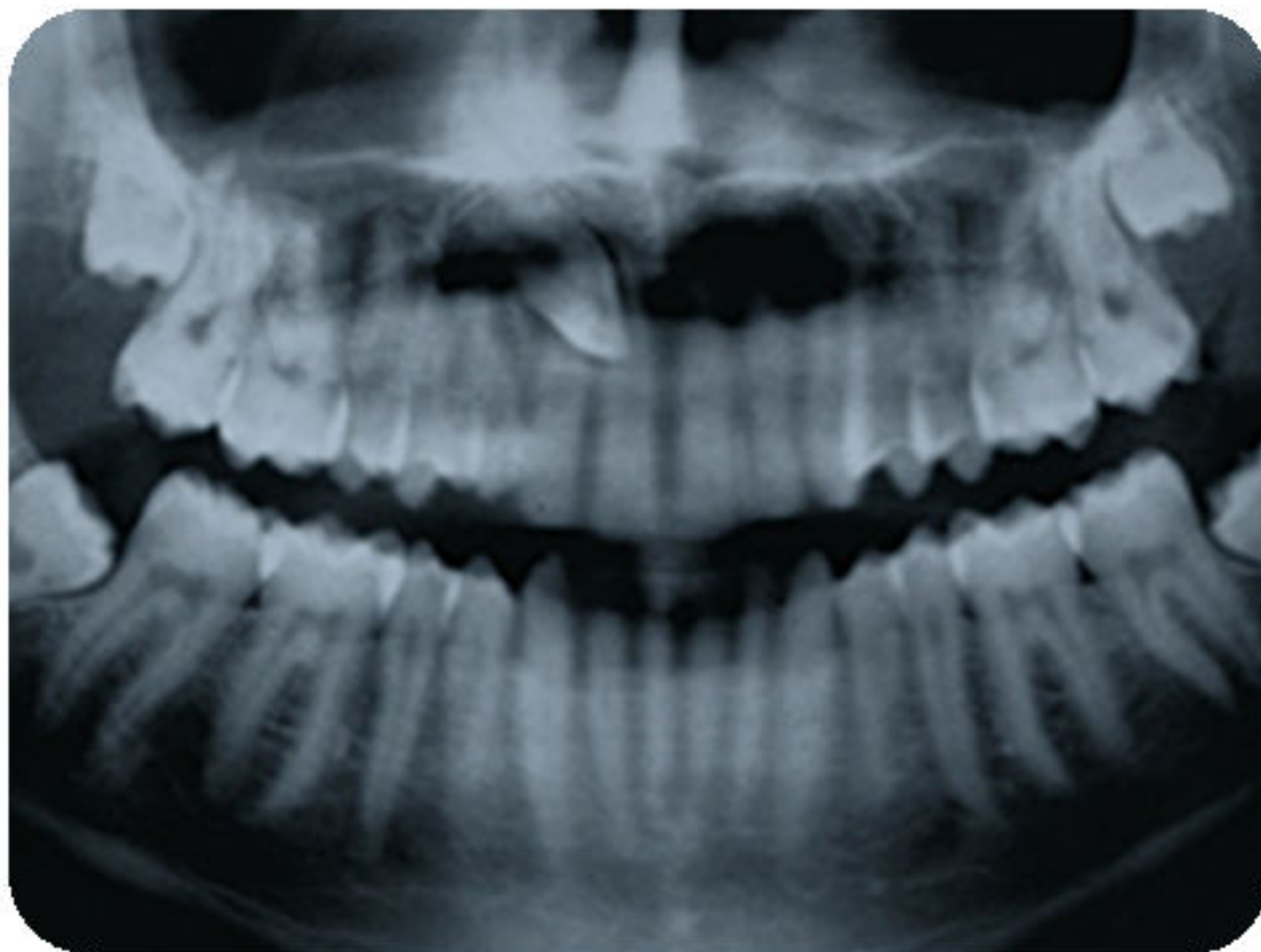


The crown is then sectioned from roots of tooth and delivered from socket



Small straight elevator no.301 is then used to elevate the mesial aspect of the tooth by rotary and lever type of motion.





mpacted
panoramic





Multiple impacted teeth

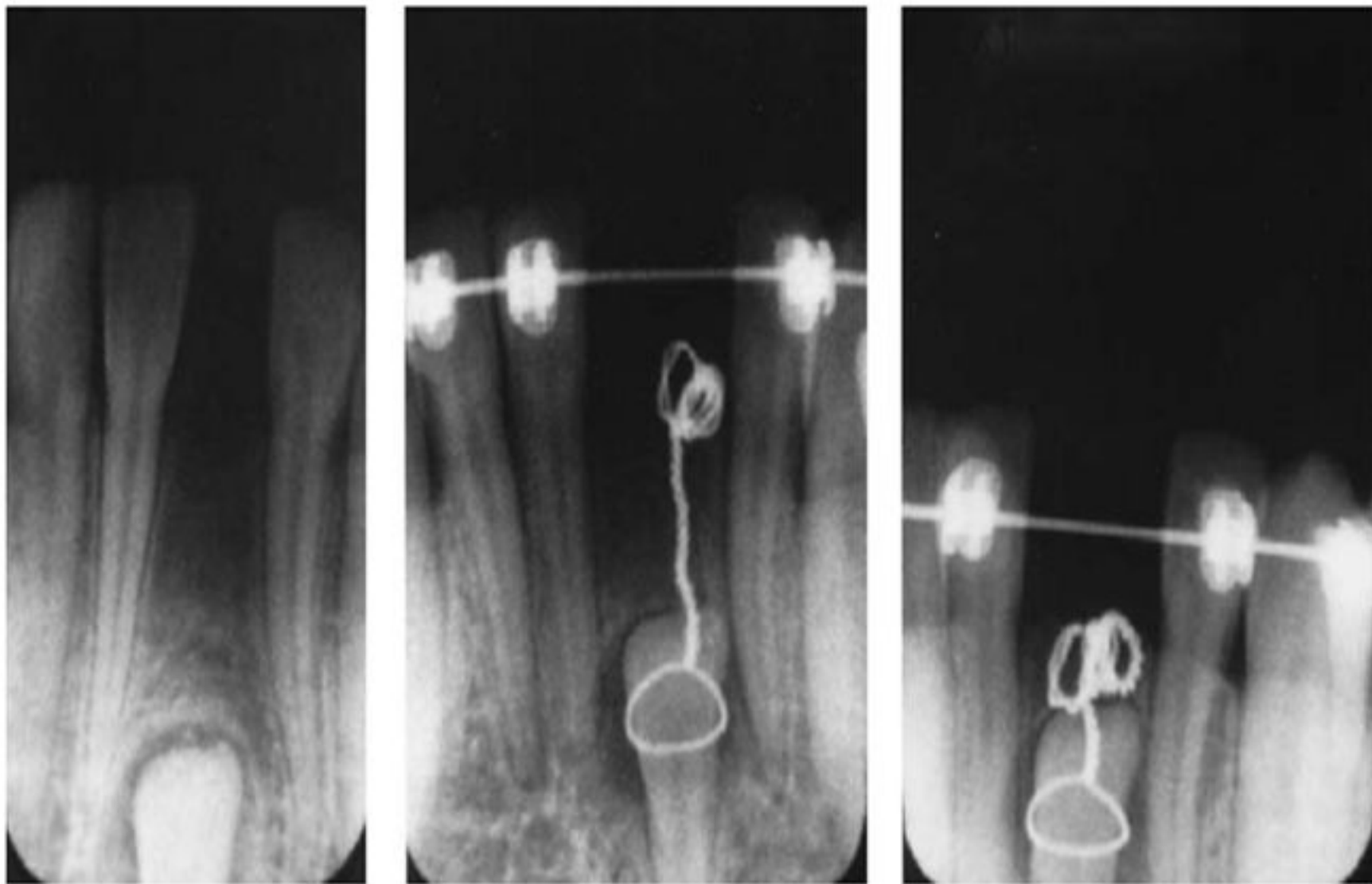


FIGURE 7-2 Unusual case of an impacted mandibular incisor. Reproduced with permission from Zeitler D. Management of impacted teeth other than third molars. *Oral Maxillofac Surg Clin North Am* 1993;5:95–103.



Cleidocranial dysplasia



**Impacted second and
third molar**

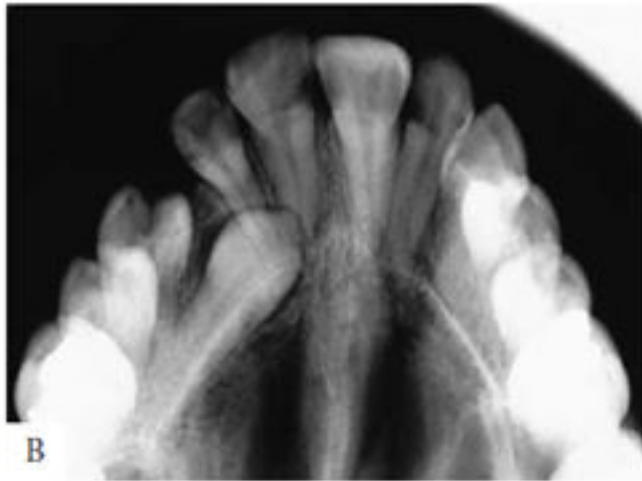


FIGURE 7-6 A, Right maxillary canine is unerupted. B, Radiograph showing impacted canine. C, Bracket placed. Reproduced with permission from Zeitler D. Management of impacted teeth other than third molars. *Oral Maxillofac Surg Clin North Am* 1993;5:95–103.

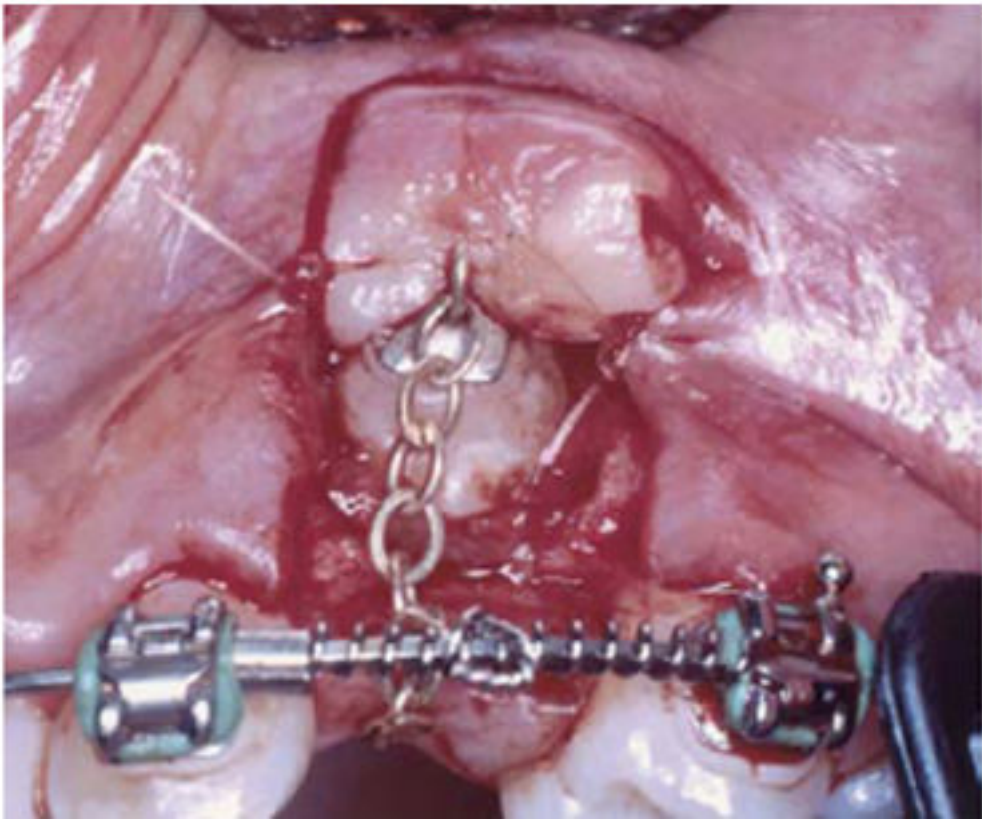
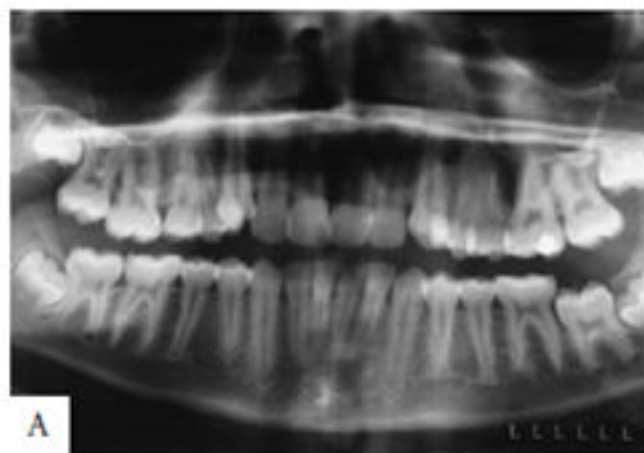


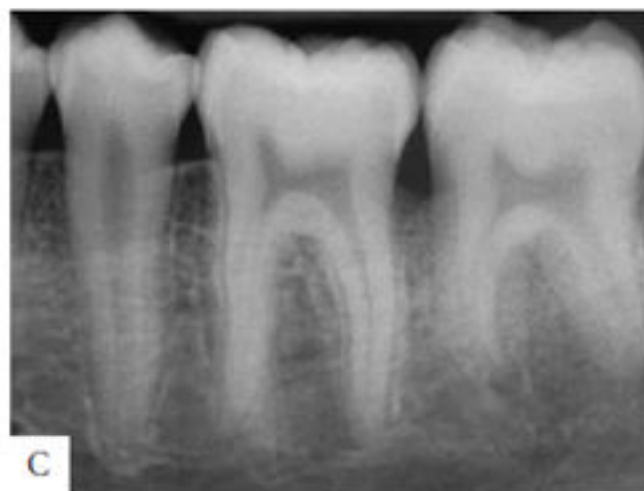
FIGURE 7-7 *Labially impacted canine exposed using an apically repositioned flap.*



A



B



C

FIGURE 7-9 A, Impacted second molar. B, Second molar lifted into position. C, Six-month follow-up radiograph of repositioned second molar.



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.*

