



*Le baume d'acier?*

# Indications of extraction

Extraction of teeth is the most important part of minor oral surgery and the most common procedures to general dental practitioner (dentist).



**Basically, we have two methods of extraction:-**

- 1- Intra-alveolar extraction (forceps extraction).
- 2- Trans-alveolar extraction (surgical extraction).

In forceps extraction which is enough for extraction in most of cases consist of removing the tooth or root by the use of forceps or elevators or both. While in trans-alveolar extraction we dissect the tooth or root from its bony attachment by rising a flap and by removal of some of the bone surrounding the roots, which are then removed by the use of elevators and/or forceps.

## INDICATIONS OF EXTRACTION:-

There are many indications for tooth extraction, if conservative treatment has either failed or is not indicated, a tooth may have to be extracted. The reasons for extraction of teeth are based on, the presence of local pathology, the feasibility of restorative procedure, function of the dentition as a whole and the patient's attitude and education. Although the modern dentistry tries and takes all measures to preserve and maintain teeth in the oral cavity, but there are a variety of general indications for removing teeth:-



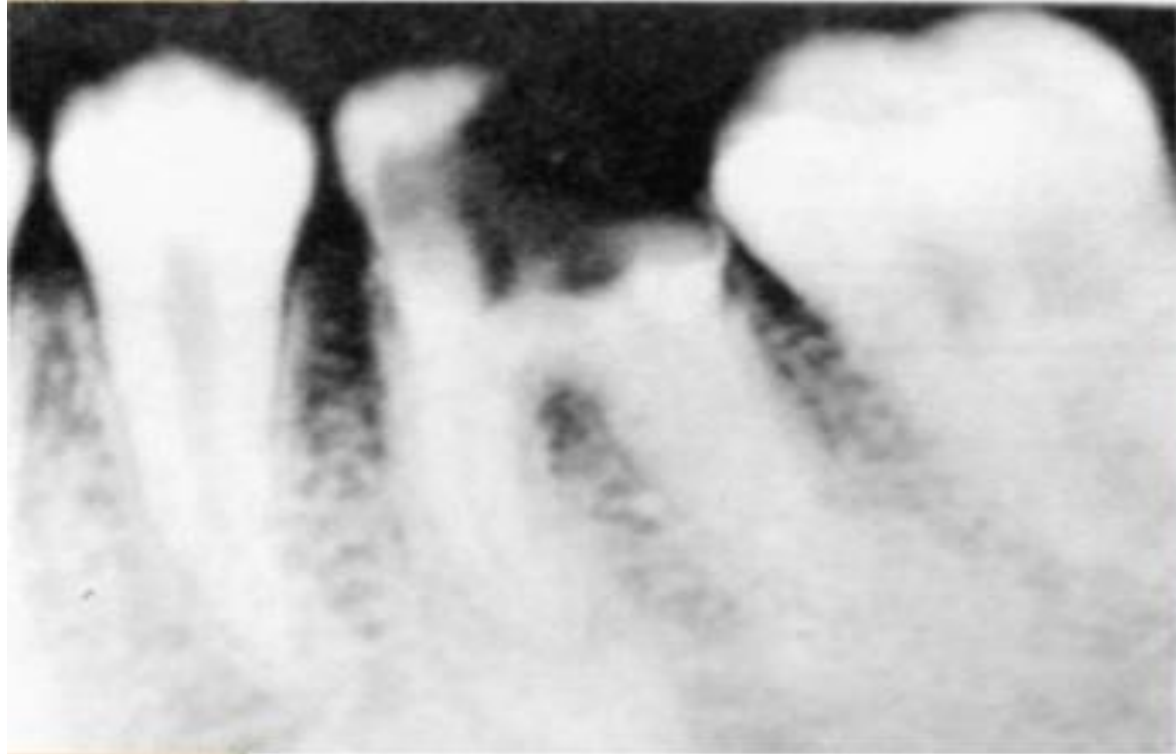
# Indications of teeth extraction:

## 1- Sever caries:-

This is the most common reason to remove a tooth. Badly carious teeth that are beyond restoration should be removed. Badly carious teeth result in deterioration of the oral hygiene resulted in bad oral hygiene and bad smell in addition to that sharp edges of the carious teeth leads to repeated ulceration to mucosa in addition to pain during eating and drinking. Untreated teeth with caries may end with pulpitis, periapical pathology etc...



# Grossly Decayed Crown







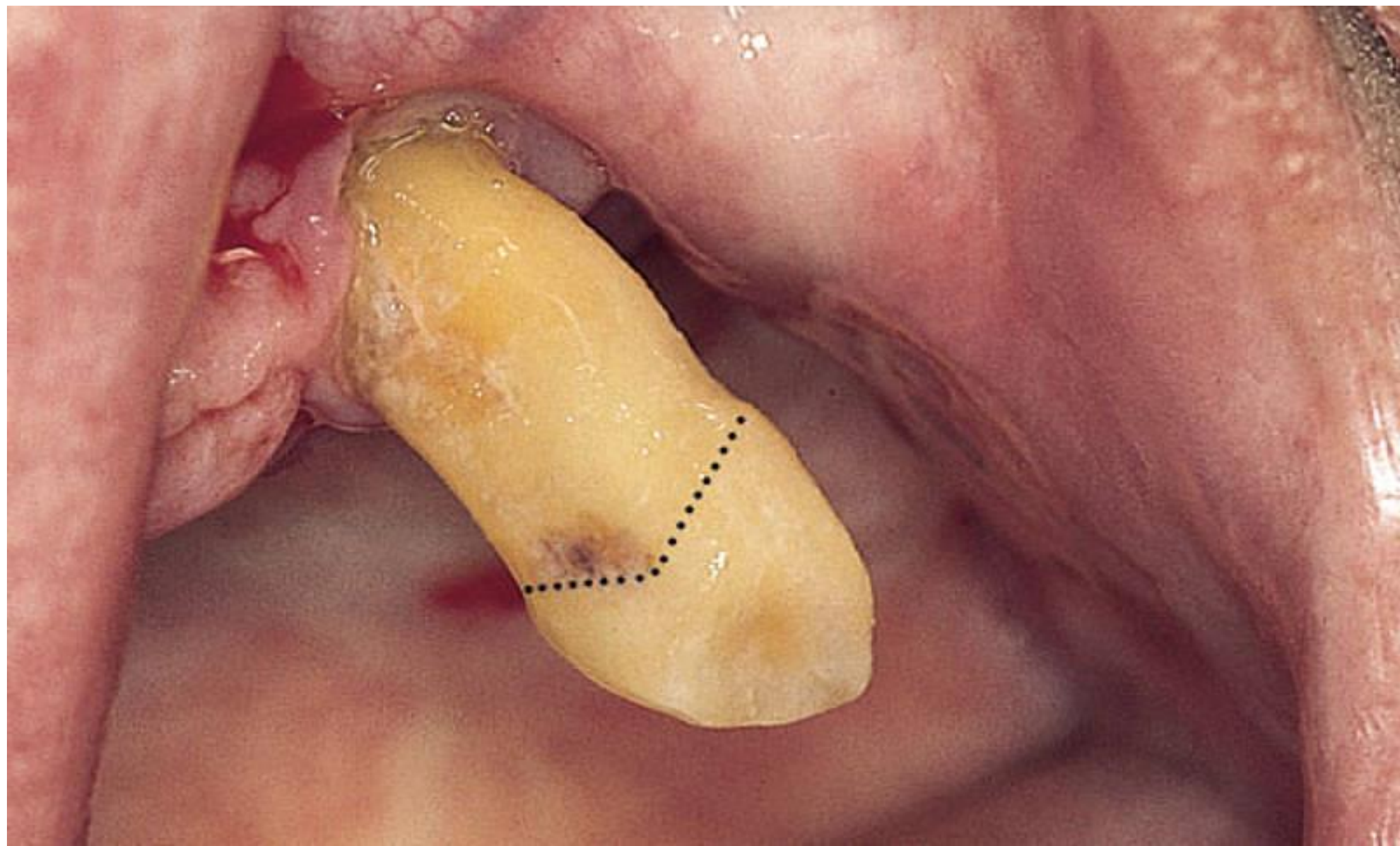




## 2- Sever periodontal disease:-

Sever and extensive periodontal disease is a common reason for tooth removal, in chronic periodontitis there is excessive bone loss and mobility in the tooth. As a rough guide loss of about half of the normal alveolar bone or extension of pockets to the bifurcation of the roots of posterior teeth and hypermobility of the teeth means that extraction of the involved tooth is necessary. Patient with advanced periodontitis may complains of mild to sever throbbing pain in case of development of paradontal abscess.



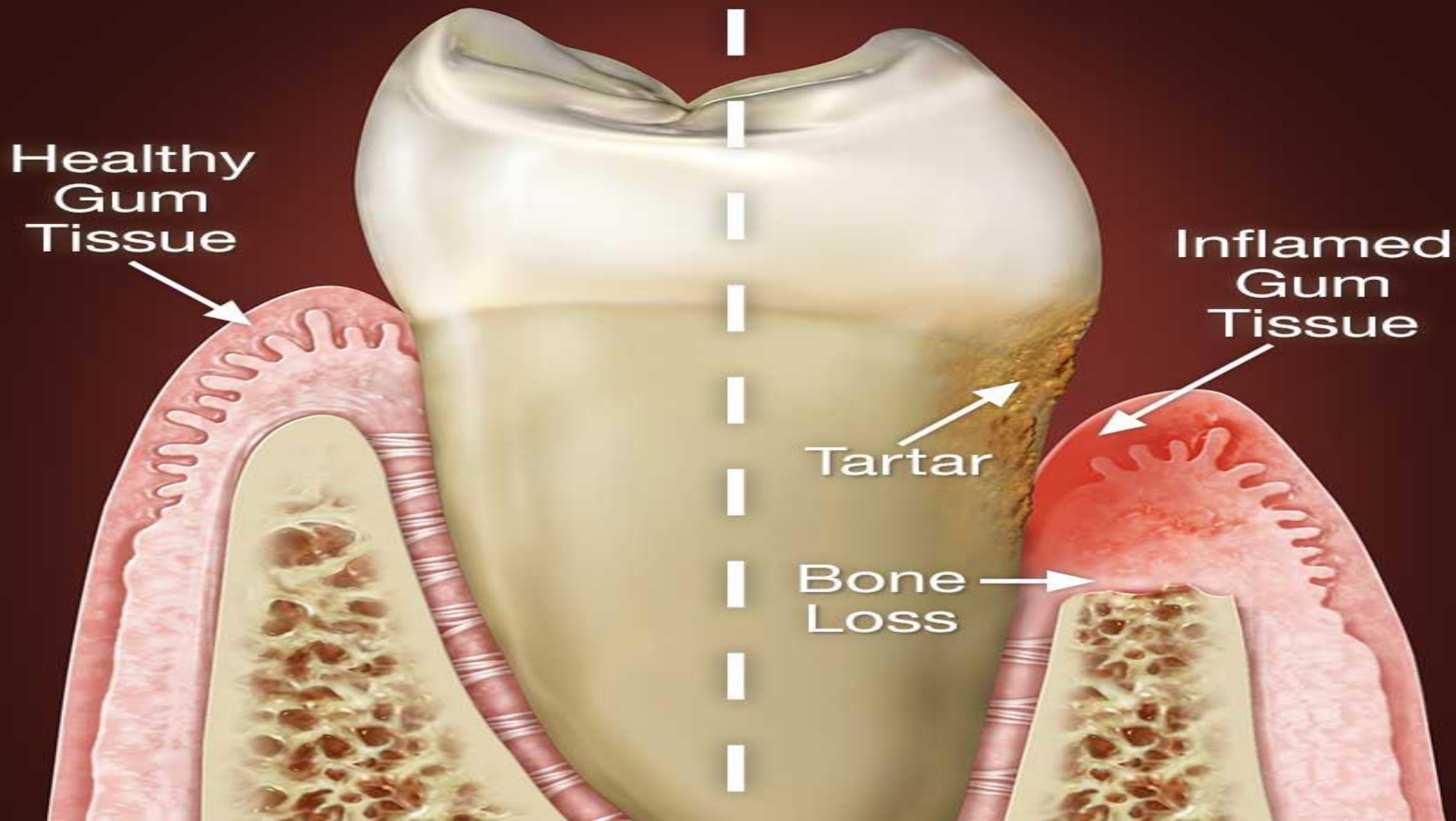








# Healthy vs. Unhealthy





### 3- pulp pathology:-

For example acute pulpitis or chronic pulpitis, non-treatable pulpal lesion. if endodontic therapy is not possible or if the tooth is not amenable for endodontic treatment, extraction is indicated.

#### 4- Apical pathology:-

Periapical lesions like periapical abscess, periapical granuloma, cyst. If the teeth fail to respond to all conservative treatment to resolve apical pathology due to technical reasons or other causes such teeth are indicated for extraction.









## 5- Orthodontic reasons:-

During the course of orthodontic treatment, tooth or teeth maybe extracted for:-

- a) Therapeutic extraction e.g. extraction of upper 4 for treatment of malposed upper 3. Extraction of teeth to provide space for tooth alignment.
- b) Malposed teeth: teeth which erupted out of line of arch difficult to clean and not amenable for orthodontic treatment are indicated for extraction.
- c) Preventive extraction, means that during mixed dentition (permanent and deciduous teeth) period dental surgeon may extract few deciduous teeth to prevent malocclusion and all these extractions should be done after proper evaluation by specialist <sup>expert in</sup> orthodontic treatment.







Retained Baby  
Tooth Needing  
Extraction

Permanent  
Tooth



## 6- Prosthetic considerations:-

Extraction of teeth are indicated for:-

- 1) Providing efficient dental prosthesis.
- 2) To provide better design and success of partial denture, few teeth maybe extracted.
- 3) To enable the patient to have complete denture e.g. full mouth clearance.



## 7- Impacted teeth.:-

Retention of un erupted teeth beyond the normal time of eruption may sometimes be responsible for: -

- a) Vague facial pain.
- b) Periodontal problems of the adjoining teeth.
- c) Temporomandibular joint problems.
- d) Bony pathology e.g. cyst (dentigerous cyst), tumor, pathological fracture.
- e) May predispose to anterior teeth crowding
- f) Significant infection (pericoritis) e.g. partially erupted third molar.









**Angular**



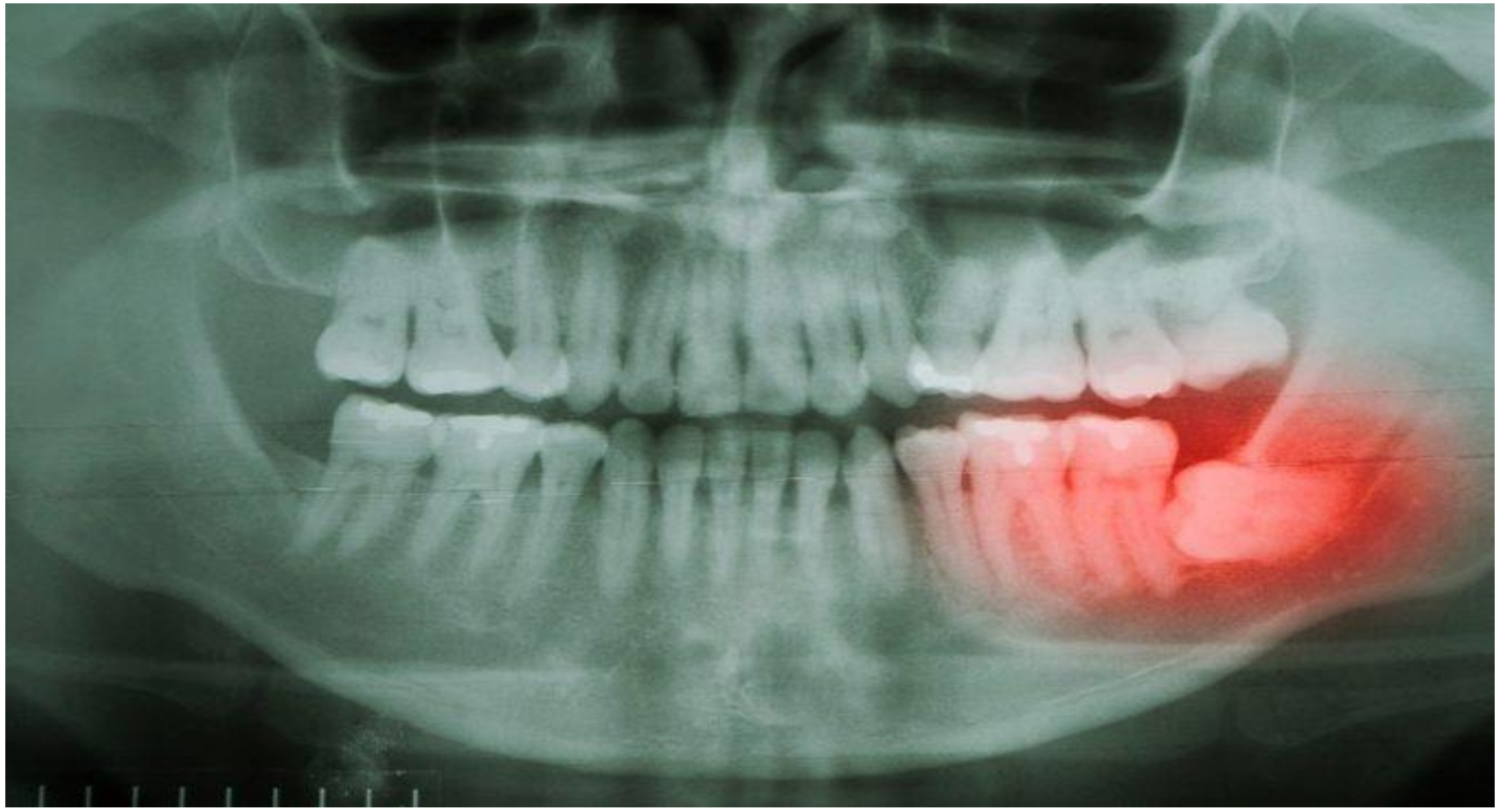
**Partial Eruption**



**Horizontal**



**Vertical**



## 8-Supernumerary teeth(S.N.T)

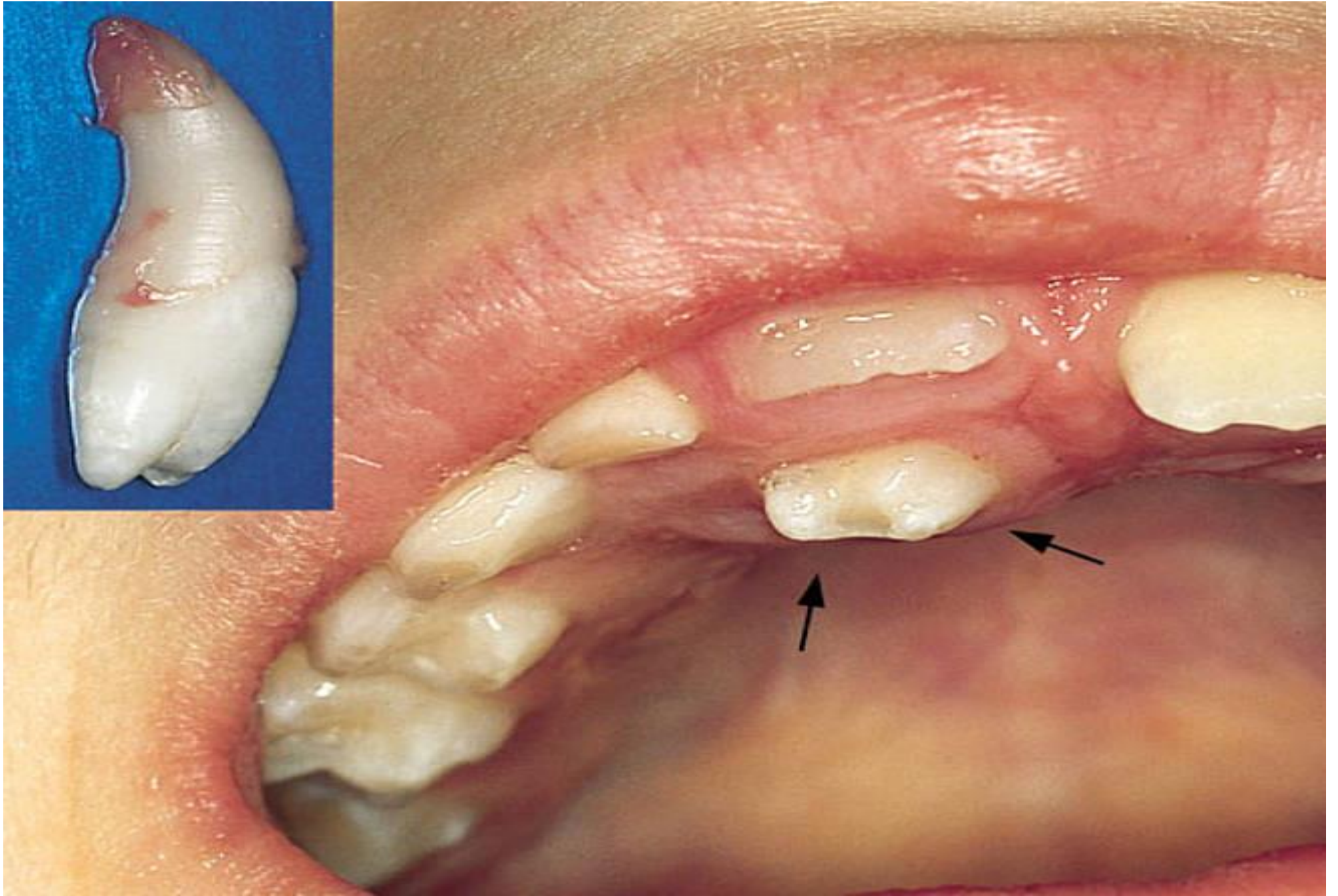
The teeth maybe impacted or malposed and such teeth may predispose to malocclusion, periodontal disturbances, facial pain, bony pathology (cyst), aesthetic problems and preventing the eruption of adjacent teeth.



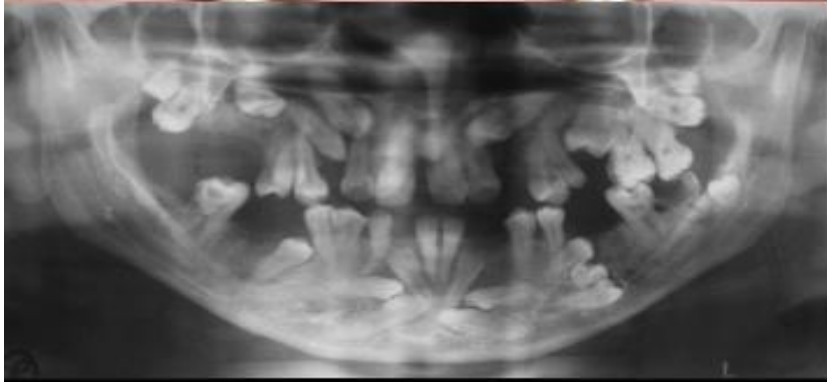
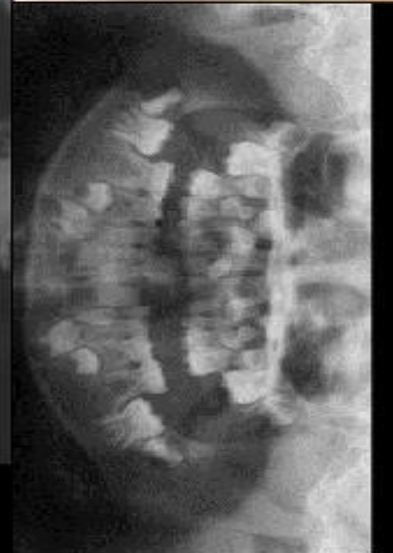












Hyperdontia.. Emt/Paramedic



## 11-Retained roots

Retained roots may remain embedded in the bone without problems for a long period, but sometimes removal of such roots maybe necessary, for example, root maybe at the sub mucosal level producing recurrent ulceration under the denture, sometimes root fragments may be involved in initiation of bony lesions like osteomyelitis, cystic lesion or neoplasm, if such fragments are in close relation to the neurovascular bundle (e.g. inferior dental nerve of the mandible) the patient may complain of facial pain or numbness in the area supplied by that nerve. As a general rule, very small fragments maybe left alone and that patient should be kept under periodic observation, and all other root fragments are indicated for removal.



Radiograph and clinical photograph of a maxillary 1st premolar.







## Extraction of Multi-Rooted Teeth with Destroyed Crown



Roots of mandibular first molar.  
Extraction is accomplished by sectioning  
roots using a straight elevator



## 9- Tooth in the line of fracture of the jaws:-

This tooth maybe extracted if:-

- a) It is a source of infection at the site of the ~~fracture~~ <sup>Fracture</sup>.
- b) The tooth itself is fracture.
- c) Interfere with fracture reduction.
- d) Interfere with healing of fracture.

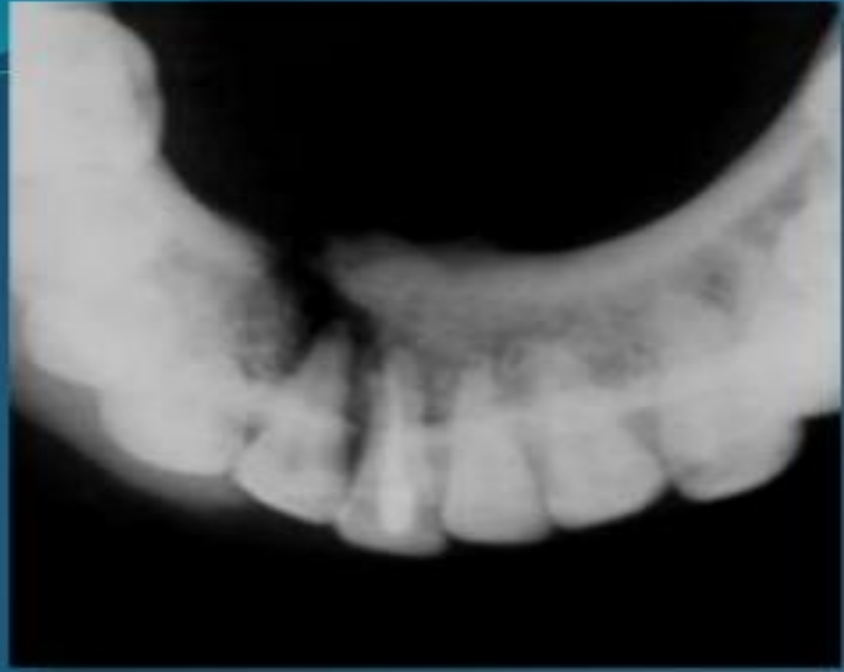
## 10- Teeth in relation to bony pathology:-

They are indicated for extraction e.g., if they are involved in:-

- a) Cyst formation.
- b) Neoplasm (tumor).
- c) Osteomyelitis (Infection of bone).

And the tooth interfere with complete surgical removal of the lesion the tooth should be extracted.





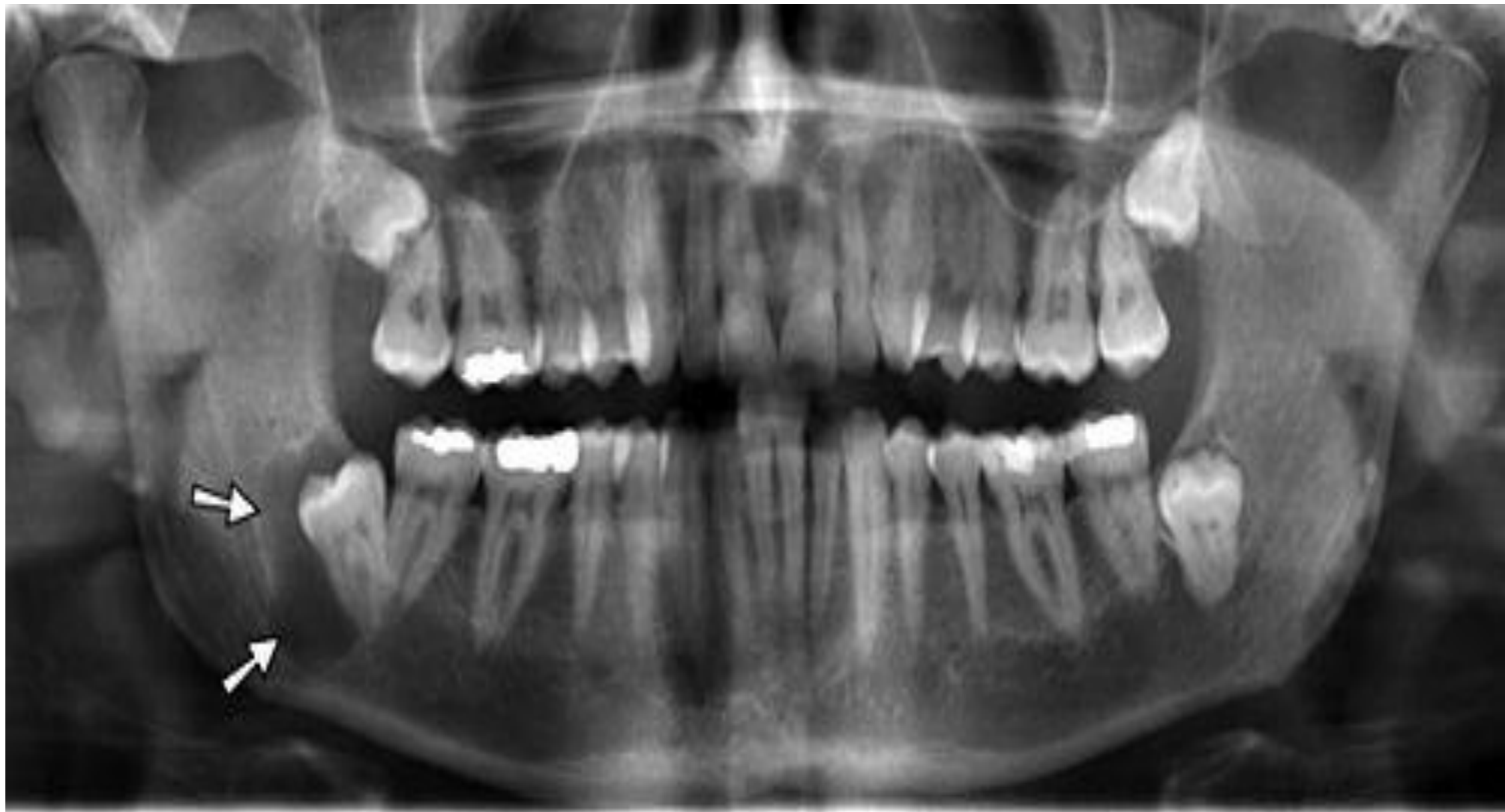
Incisors and third molars  
are the most commonly  
involved teeth in the  
fracture lines

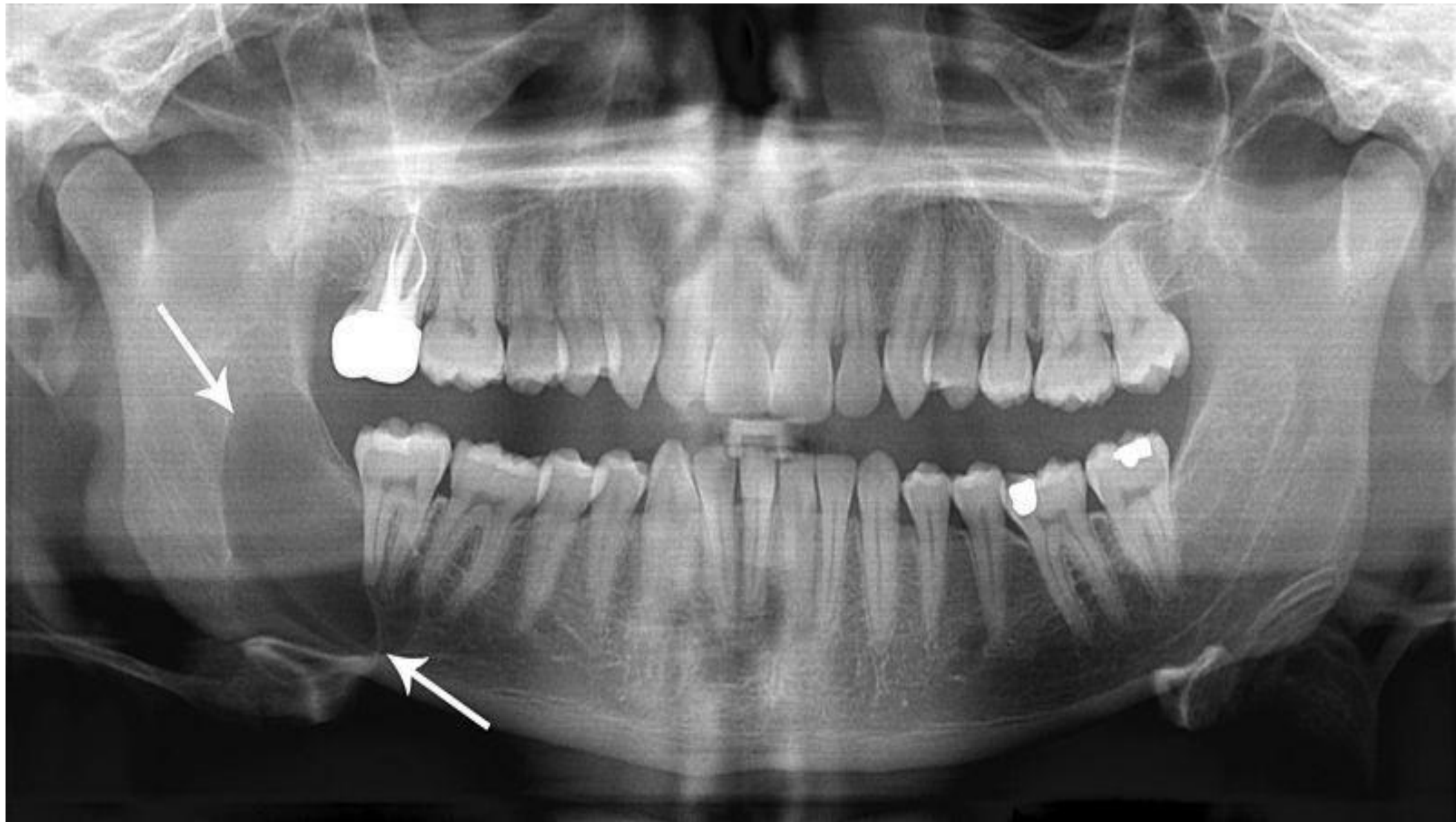












## 12- prior to irradiation:-(before radiotherapy)

Irradiation is one of the methods of treating oral carcinomas and teeth which cannot be kept in a sound condition should be removed before irradiation, trauma (extraction) with superadded infection will lead to development of osteoradionecrosis of the jaw bone which is unpleasant complication and difficult to be treated.



### 13-Focal sepsis:-

Sometimes teeth or a tooth may appear sound clinically, but on radiographic examination the tooth may appear to be considered as a foci of infection (teeth associated with periapical pathology or periodontal problems), these teeth or tooth should be extracted in certain conditions e.g. heart surgery; heart valve replacement, kidney transplant, eye Surgery

## 14- Aesthetic:-

Poor aesthetic, severely stained (tetracycline, fluorosis) attrition or hypoplastic (hypoplasia) of enamel or dentine and they cannot be restored may be indicated for extraction.

Typed and printed by

**Extraction of teeth routinely done under local anesthesia ,but extraction under general anesthesia is indicated in the following conditions :-**

- 1- acute local infection and limited mouth opening ,( when local anesthesia is ineffective) .
- 2- children's. Children who are too young to cooperate.
- 3- dental phobia (fear )& anxiety.
- 4- handicapped patients (mental impairment ) .
- 5 – sever gag reflex .
- 6- allergy to local anesthesia.
- 7- extensive surgical intervention (multiple extraction ) . long, complex, or multiple procedures at a single session.