

EXODONTIA

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EXODONTIA

DEFINITION

Also known as **dental extraction** is the removal of teeth from the dental alveolus (socket) in the alveolar bone



Ideal tooth extraction

- Painless removal of the whole tooth, or root with minimal trauma to the investing tissues, so that the wound heals uneventfully and no postoperative prosthetic problem is created.
- Geoffrey L.Howe

HISTORY OF TOOTH EXTRACTION



BEFORE ADVENT OF LA



ROBOTIC 3RD MOLAR EXTRACTION

INDICATIONS OF EXTRACTION

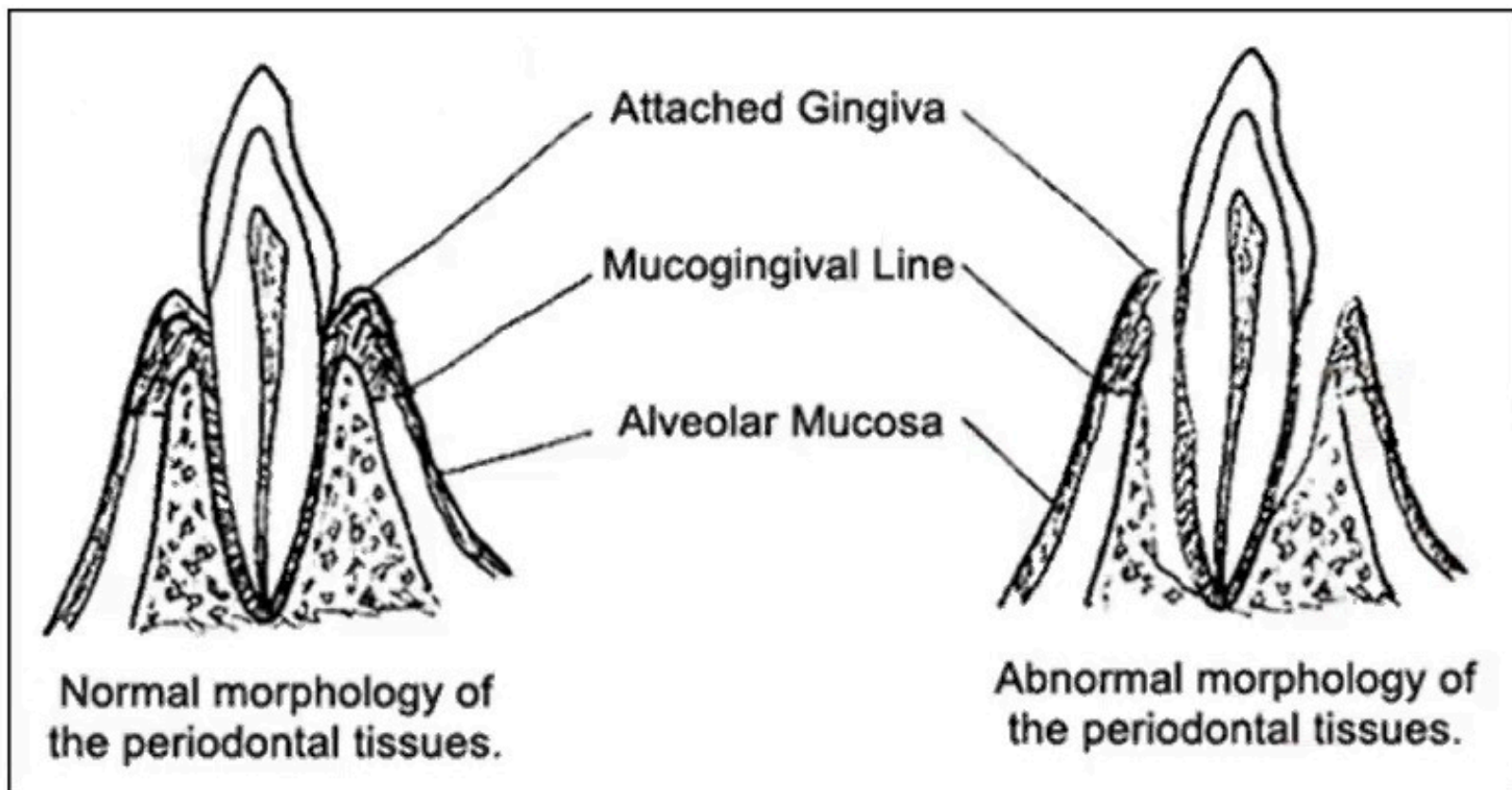
- Indications for tooth extraction include advanced periodontal disease, abscess, excessive caries, failed endodontic treatment, and third-molar impaction.
- Extraction also may be part of an orthodontic or prosthodontic treatment plan.
- Patients with cancer undergoing radiation therapy -Potentially problematic teeth extracted.
- Retained roots may require surgical removal.

Severe caries

If caries-infected teeth are left untreated, pain and increased numbers of bacteria in the oral cavity result. When rampant caries is present and no restorative treatment is acceptable, teeth are extracted.



ADVANCED PERIODONTAL DISEASE



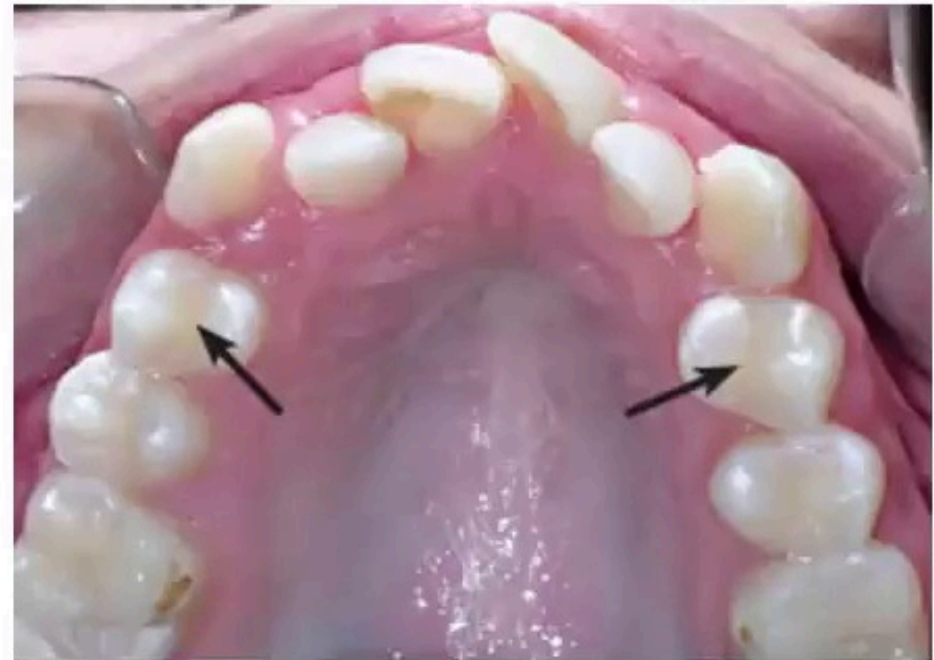
Supernumerary teeth (Hyperdontia)

- Supernumerary teeth which are blocking other teeth from coming in.

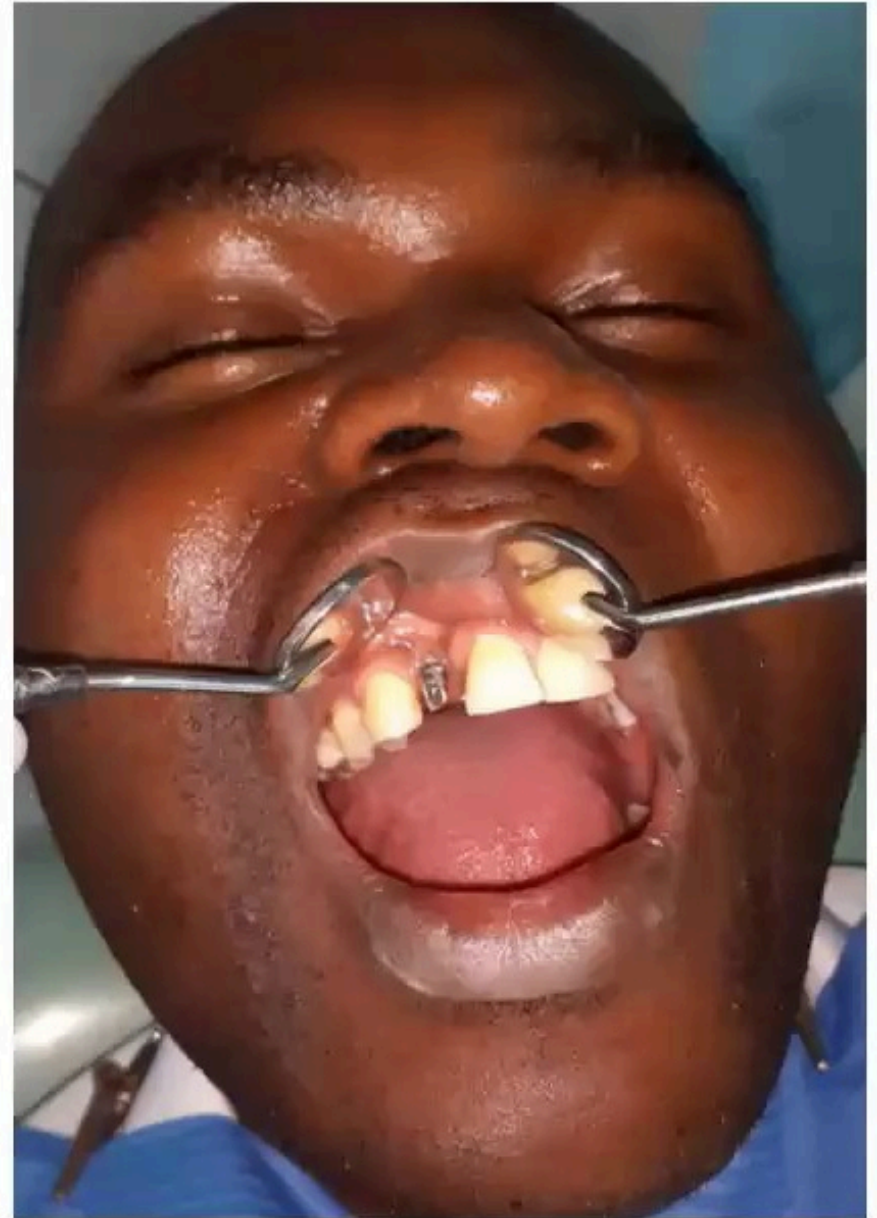


Extraction as Part of an Orthodontic Treatment Plan

Due to significant crowding, extraction of the first premolars is necessary to properly align the remaining teeth.



Extraction as Part of a Prosthetic Treatment Plan



Dental Abscess and Cellulitis

- Cellulitis is a diffuse, hard, erythematous swelling resulting in the spread of microorganisms through the soft-tissue fascia. An abscess is a localized cavity lined by fibrous connective tissue that contains exudate.



Failed endodontic treatment

- When endodontic treatment options fail, the next course of action is usually extraction. An inadequately sealed root canal may result in a recurrent apical or periodontal infection, which may not be able to be treated successfully.



Teeth in the fracture line



Preirradiation/Postirradiation Extractions

- Prior to beginning radiation therapy, all patients should undergo a thorough dental evaluation, including full mouth radiographs, dental and periodontal diagnosis, and prognosis for each tooth.
- Teeth that cannot be salvaged with conservative endodontic therapy should be extracted.
- Extractions should be performed 3 weeks prior to beginning radiation therapy.
- Extraction of teeth during radiation therapy should be discouraged and delayed until the completion of treatment with resolution of the [oral mucositis](#).

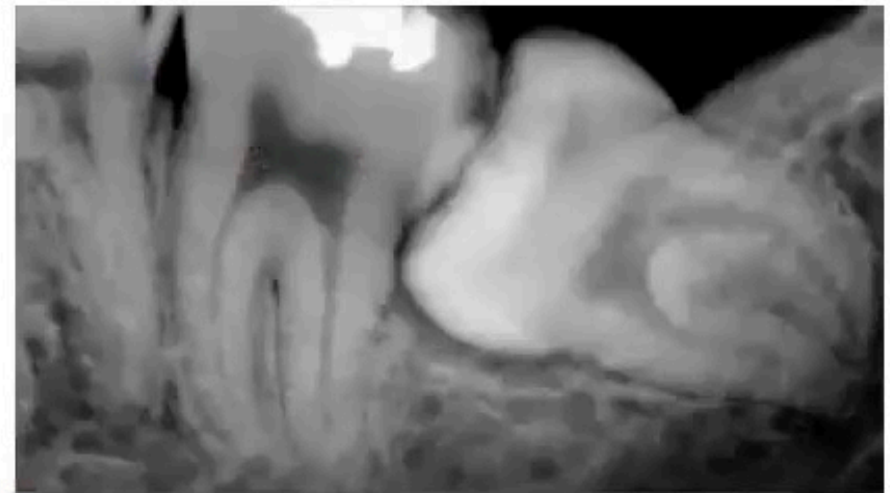
Preirradiation/Postirradiation Extractions

Osteoradionecrosis
(ORN) is a condition
of nonvital bone in a
site of radiation
injury

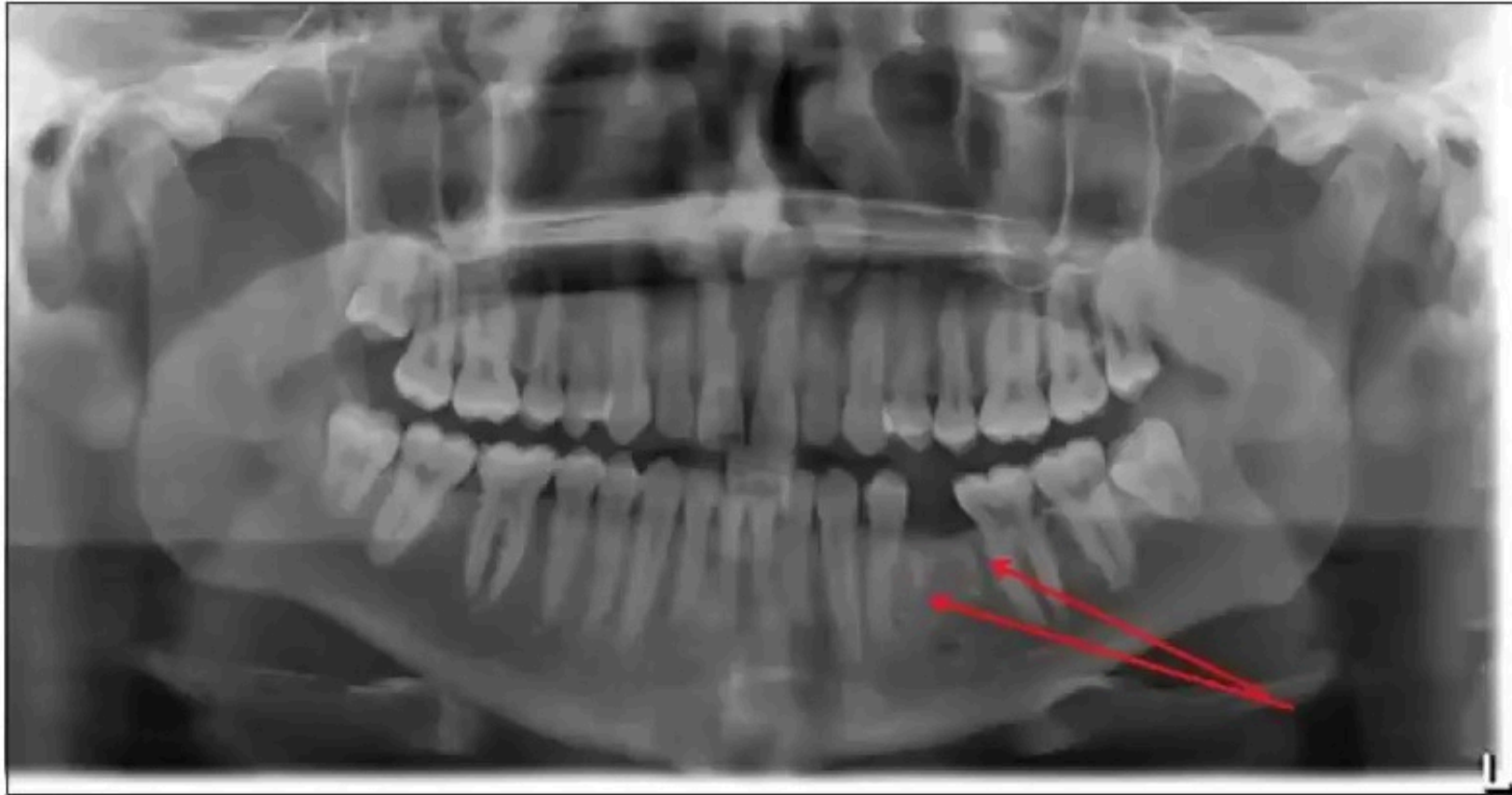


Impacted third molars

- Impacted third molars may cause recurrent pericoronitis or caries to adjacent teeth due to food impaction
- Such teeth should be extracted

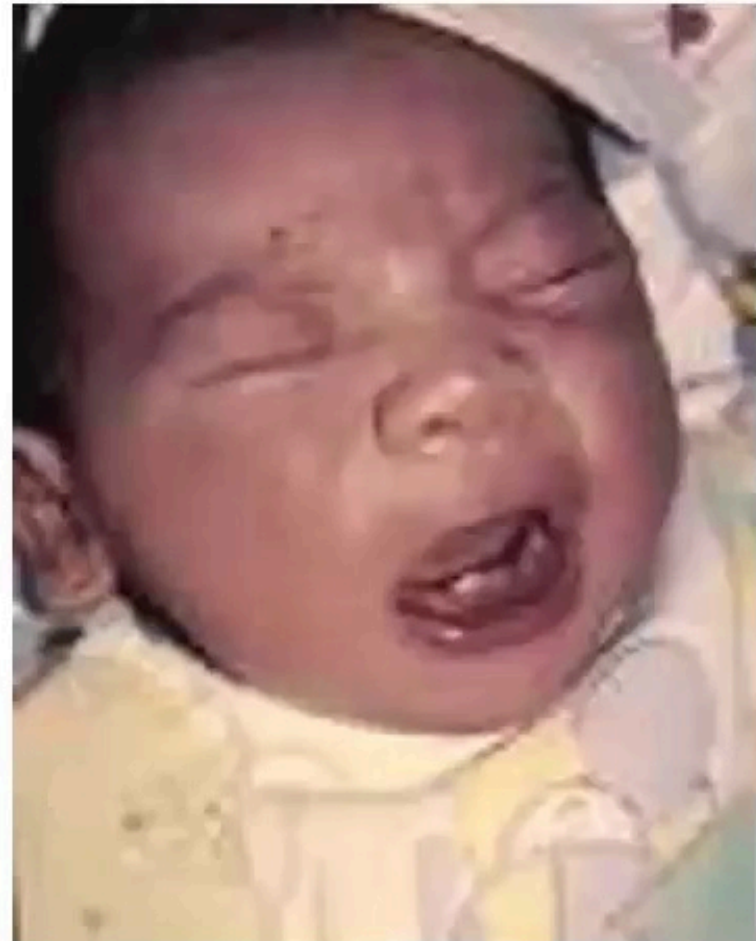


Retained roots



Indications.....

Natal or Neonatal Tooth



Other indications

- Economic considerations
- Cultural practices
 - Mandibular incisors
 - canines

Contraindication for tooth extraction

- Sytemic
- Local

CONTRAINDICATIONS

Systemic contraindications

- End stage renal disease
- Uncontrolled diabetes & Hypertension
- Leukemia
- Uncontrolled cardiac disease
- Bleeding diathesis: Hemophilia, thrombocytopenia

RELATIVE CONTRAINDICATIONS

- Pregnancy
- Drugs-
 - anti coagulants,
 - immunosuppressants e.g., corticosteroids

LOCAL CONTRAINDICATIONS

- Teeth: in tumour-irradiated bone
- Relative contraindication- acute infection:
 - i) acute gingival infections like fusospirochetal or streptococcal
 - ii) acute pericoronal infections
 - iii) acute maxillary sinusitis- extraction of maxillary bicuspid and molars is contraindicated

PRE OPERATIVE ASSESMENT

- Clinical evaluation
 - Good medical and dental history
 - Good medical and dental examination
- Radiographic evaluation

CLINICAL ASSESSMENT

- Heavy restoration
- Grossly decayed
- Inclined/rotated
- Firm/mobile
- Supporting structures may be diseased or hypertrophied
- Accessibility to tooth
- Sound tooth substance remaining

RADIOGRAPHIC ASSESMENT OF TOOTH FOR EXTRACTION

- **RELATIONSHIP OF ASSOCIATED
VITAL STRUCTURES**
- **CONFIGURATION OF ROOTS**
- **CONDITION OF THE SURROUNDING BONE**
- **PERIAPICAL PATHOLOGIES**

INDICATIONS FOR PRE OPERATIVE RADIOGRAPHS

- A history of difficult or attempted extraction.
- Tooth which is abnormally resistant to forceps extraction.
- Heavily restored or pulpless teeth.
- If it has been decided to remove the tooth by dissection.
- All mandibular 3rd molar, instanding premolars or misplaced canines. The root pattern of such teeth is often abnormal

INDICATIONS FOR PRE OPERATIVE RADIOGRAPHS

- Any teeth or roots in close relationship to either the maxillary antrum, inferior dental and mental nerves
- Any tooth affected by periodontal disease accompanied by some sclerosis of supporting bone
- Any tooth which has been subjected to trauma
- Partially erupted or unerupted tooth
- Retained root

TYPES OF EXTRACTION

- **Closed method/forceps extraction/intra-alveolar extraction**-consists of removing the tooth or root by use of forceps or elevators or both.
- **Open method/surgical/trans-alveolar extraction**-consists of dissecting the tooth or root from bony attachments by removal of some bone investing the tooth/roots, which are then delivered by use of elevators and/or forceps

COMPLICATIONS OF EXODONTIA

Copmlications of teeth extractions can be
divided in to

1. *Perioperative complications:* are the complications that occur during the surgical procedure

2. *postoperative complications:* occur during the postoperative period.

Complications of exodontia

- ❖ During extraction:
 - soft tissue laceration
 - Broken tooth
 - Haemorrhage
 - Oroantral communication
 - Luxation of the neighbouring tooth
 - TMJ problem
 - Fracture jaw
 - Tooth ingestion or aspiration



Postoperative Complications

- ▣ *Trismus*
- ▣ *Hematoma*
- ▣ *Ecchymosis*
- ▣ *Edema*
- ▣ *Postextraction granuloma*
- ▣ *Painful postextraction socket*
- ▣ *Fibrinolytic alveolitis (dry socket)*
- ▣ *Infection of wound*
- ▣ *Disturbances in postoperative wound healing*