Indications of teeth extraction

Exodontia:

Exodontia is a skillful pain less removal of teeth from their bony alveolar socket with relatively minimal amount of trauma to the investing or surrounding tissues so that would heal with minimal postoperative complications. Extraction of teeth is the most important part of minor oral surgery and the most common procedures to general dental practitioner (dentist). *There are two methods of extraction*:

- ✓ Intra-alveolar extraction (forceps extraction).

It consist of removing the tooth or root by the use of forceps or elevators or both. This method is useful for extraction of teeth in most cases

- ✓ Trans-alveolar extraction (surgical extraction).

It involved dissection of the tooth or root form its bony attachment by rising a flap and removal of the bone surrounding the roots, which are then removed by the use of elevators and/or forceps.

Indications for Removal of Teeth

Teeth are extracted for a variety of reasons. This section discusses a variety of general indications for removing teeth. These indications are only guidelines, not absolute rules.

- ✓ Severe caries

Perhaps the most common and widely accepted reason to remove a tooth is so severely carious that it cannot be restored. The extent to which the carious tooth considered nonrestorable is a judgment call to be made between the dentist and the patient. Badly carious teeth result in bad oral hygiene and bad smell, sharp edges of the carious teeth leads to repeated trauma and ulceration to the mucosa and the tongue, finally carious lesion leading to pain during eating and drinking.

✓ Periodontal Disease

A common reason for tooth removal is severe and extensive periodontal disease. Tooth with chronic periodontitis indicated for extraction if there is: excessive bone loss (>1/2 root length), pocket depth reach the bifurcation, and irreversible excessive tooth mobility. Patient with advanced periodontitis may complain of mild to severe throbbing pain in case of development of Paradental abscess.

✓ Pulp pathology

A second, closely aligned rationale for removing a tooth is the presence of pulpal necrosis or irreversible pulpitis that is not amenable to endodontics. This may be the result of a patient declining endodontic treatment or when a tooth has a root canal that is tortuous, calcified, and untreatable by standard endodontic techniques. Also included in this category of general indications is the case in which endodontic treatment has been done but has failed to relieve pain or provide drainage, and the patient does not desire retreatment.

✓ Apical pathology

Tooth indicated for extraction in cases of periapical abscess, periapical granuloma, and cyst. If the teeth fail to respond to all conservative or surgical treatment to resolve the lesions due to technical reasons or other causes.

✓ Orthodontic Reasons

Patients who are about to undergo orthodontic correction of crowded dentition with insufficient arch length frequently require the extraction of teeth to provide space for tooth alignment. The most commonly extracted teeth are the maxillary and mandibular Premolars, but other teeth may occasionally need to be extracted. Great care should be taken to double-check that extraction is necessary and to detect correct tooth or teeth are to be removed.

During mixed dentition period (permanent and deciduous teeth), dental surgeon may extract deciduous tooth to prevent malocclusion and all these extractions should be done after proper evaluation by specialist orthodontic. This is regarded as Preventive extraction.

✓ Malpositioned Teeth

Teeth that are malposed or malpositioned may be indicated for removal in several situations. If they traumatize soft tissue and cannot be repositioned by orthodontic treatment, they should be extracted. A common example of this is the maxillary third molar, which erupts in severe buccal version and causes ulceration and soft tissue trauma of the cheek. Furthermore this teeth difficult to be cleaned.

Another example is malpositioned teeth that are hypererupted because of the loss of teeth in the opposing arch. If prosthetic rehabilitation is to be carried out in the opposing arch, the hypererupted tooth may interfere with construction of an adequate prosthesis.

✓ Prosthetic considerations

Extraction of teeth is indicated to provide efficient dental prosthesis and better design for success of partial denture. Solitary tooth or non-strategic tooth may be extracted to enable the patient to have complete denture e.g. full mouth clearance.

✓ Impacted Teeth

Retention of unerupted teeth beyond the normal time of eruption. Impacted teeth should be considered for removal when it responsible for: -

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

✓ Supernumerary Teeth

Supernumerary teeth are usually impacted and should be removed. A supernumerary tooth may interfere with the eruption of succedaneous teeth and has the potential for causing their resorption and displacement. Such teeth may predispose to malocclusion, periodontal disturbances, facial pain, bony pathology (cyst) and aesthetic problems.

✓ Teeth Involved in Jaw Fractures

Patients with fractures of the mandible or the alveolar process sometimes must have teeth removed. In some situations, the tooth involved in the line of fracture can be maintained, but if the tooth is injured (fractured), infected, or severely luxated from the surrounding bony tissue or interferes with proper reduction and fixation of the fracture and so interfere with healing, its removal is usually indicated.

✓ Teeth Associated With Pathologic Lesions

Teeth involved in pathologic lesions may require removal, it they are involved in Cyst formation, Neoplasm (tumour), and Osteomyelitis. In some situations, the tooth or teeth can be retained and endodontic therapy performed. However, if maintaining the tooth compromises the complete surgical removal of the lesion when complete removal is critical, the tooth should be removed.

✓ 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.

✓ Prior to Radiation Therapy

Patients who are to receive radiation therapy for oral, head, or neck cancer should consider removal of teeth that are in the beam of radiation therapy, particularly if the teeth are compromised in some manner. However, many of these teeth can be retained with proper care. Trauma (extraction) with superadded infection will lead to development of osteoradionecrosis of the jaw bone which is unpleasant complication and difficult to be treated.

✓ 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), teeth or tooth should be extracted in certain conditions e.g. heart surgery; heart valve replacement, kidney transplant, eye Surgery

✓ 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.