

Immediate Denture

An **immediate denture** is a complete **denture** or partial **denture** inserted on the same day, immediately following the removal of natural teeth.

- Any removable dental prosthesis fabricated for placement immediately following the removal of a natural tooth/teeth.
- Immediate dentures are denture constructed before all of the remaining teeth have been removed and are inserted immediately following removal of the remaining teeth.
- An immediate denture may replace one tooth or all sixteen teeth in either the maxillary or the mandibular arch or in both arches.

Requirements:

- Compatibility with the surrounding oral environment
- Restoration the masticatory efficiency within limits.
- Harmony with the functions of speech respiration and deglutition.
- Esthetic acceptability
- Preservation of the remaining tissue.

Advantages:

- Maintenance of a patient's appearance
- Circumoral support, muscle tone, vertical dimension of occlusion, jaw relationship and face height can be maintained. The tongue will not spread out as a result of tooth loss
- Less postoperative pain is likely to be encountered because the extraction sites are protected.
- Easier to duplicate (if desired) the natural tooth shape and position
- Adaptation easier. Speech and mastication are rarely compromised and nutrition can be maintained.

- The patient does not need to go through edentulous period of healing
- There is usually less pain because the denture acts as a protective split
- Less change in muscle and supporting structures, and vertical dimension is maintained.
- There is likely to be more lasting stability and better resiliency (edentulous mouth without a protective covering loses resiliency)
- The patient can masticate food and major dietary modification.
- Appearance is affected minimally, since cheek and lip support are maintained face height is also maintained and the tongue does not spread out as a result of lack of contact with teeth.
- A surgical stent and protective bandage helps to reduce bleeding
- Protect the tissues at the sensitive extraction sites from irritation
- Prevents patient embarrassment
- Promotes patient health and healing post extraction.
- Provides a guide for optimal individualized patient esthetics and for V.D.O.
- Establish the speech patterns more easily.

There are several advantages of an immediate denture. The most important factor is that you will never need to appear in public without teeth. It is also easier to duplicate the shape, color and arrangement of your natural teeth while some are still present in your mouth. When an immediate denture is inserted at the time of extraction, it will act as a Band-Aid to protect the tissues and reduce bleeding. An immediate denture will allow you to establish your speech patterns early. You will not have to learn to speak without a denture in place and then later relearn to speak with a new denture. An immediate denture will also allow you to chew better than without any teeth and minimize facial distortion that may occur when teeth are removed.

Disadvantages:

- Immediate dentures are a more challenging.
- The anterior ridge undercut that is caused by the presence of the remaining teeth may interfere with the impression procedures.
- The presence of different numbers of remaining teeth in various locations frequently leads to recording incorrectly the centric relation position

- No denture tooth try-in precludes knowing what the denture will actually look like on the day of insertion.
- More chair time, additional appointments and therefore increases costs.
- More maintenance work is required than those with the conventional service.
- Interim relines with tissue conditioners will be needed periodically.
- The immediate denture does not replace the stimulation that was supplied to the bone by the natural teeth.
- The procedures are precise and time consuming require more appointments.
- There is no opportunity to observe the anterior teeth at the try-in appointment; therefore the esthetic result cannot be evaluated.
- Increased complexity of clinical procedures
- Gross irregularities of teeth make processing difficult, e.g., bulbous tuberosities/tori.
- Retention is potentially less than the optimum.

An immediate denture is initially more expensive than a conventional denture because additional time is needed for construction. A surgical stent (a guide for recontouring tissues after extraction) is often necessary and more follow-up visits are needed for adjustments and re-fitting. A soft temporary reline material will be utilized for re-fitting your denture when it becomes loose during the healing process. After the soft tissues have healed and shrinkage of the underlying bone has occurred (about six months following extractions), the immediate denture must be finalized by a permanent reline or new denture. At this time, you will be charged for either a reline or a new denture, depending on your choice.

Indication:

- Due to general health conditions,
- Because of specific oral problems.
- For the famous people
- People who are not agree to remain with missing tooth

Contraindication:

- Patient is unavailable for appointment.
- Patient is debilitated or with systemic conditions (poor surgical risk)
- Acute infections that require drainage.
- Emotionally disturbed or diminished mental capacity and indifferent patients.
- Patients who have undergone radiation therapy (extraction itself is contraindicated)
- Patient with a severe Gagging reflex.
- Patient with extensive bone loss.

Types:

According to the denture's flanges shape

Flanged type

Partial flanged

Open face (socketed type)

Flanged Denture

Advantages

1. Retentive
2. Easier to reline and rebase
3. May be difficult to place where there is an undercut.

Open-face dentures socketing

Socketing anterior teeth on an open-face denture is to maintain an acceptable appearance in the immediate post-extraction period (teeth appear as emerging from the normal gingiva) by extending the necks of the denture teeth into the sockets »

The socketing of the artificial teeth means putting the artificial teeth deep (around 2mm) in the gingiva, just enough to compensate for the gingival retraction that occurs immediately after extractions.

The amount of gingival retraction will depend on the degree of pocketing and bone loss that is present around the natural (some times socketing more than 2mm (up to 5mm) would be needed)

Without socketing, a gap would appear between tooth and mucosa. teeth. These aspects should therefore be assessed before deciding ‘

The socket depth should not exceed 5mm labially and 2mm palatally.

The sockets should not be carried too far towards the palatal side i. e the socket should slope from the palatal margin upward toward the labial aspect.

According to the surgical alveoplasty performed

- With surgery (surgical alveoplasty)
- Without surgery (surgical alveoplasty)

According to timing of teeth extraction and denture purpose

Conventional immediate denture (CID)

- A complete or removable partial denture or overdenture fabricated for placement immediately after the removal of natural teeth. The posterior teeth would be extracted and allowed to heal before the anterior teeth extraction The denture is intended to be relined to serve as the long term prosthesis.

Indications

- For patients with periodontally weak teeth indicated for extraction.
- For socially active people who are very self-conscious about their appearance.

Interim immediate denture (IID):

All remaining teeth are extracted on the same day and the immediate denture is inserted on the same day. After healing is completed, a second, new complete denture is to be fabricated as the long—term prosthesis. A dental prosthesis to be used for a short interval of time for reasons of esthetics, mastication, occlusal support, or convenience, until more definitive prosthetic therapy can be provided.

Transitional immediate denture.

It is an interim immediate denture. However, it is a removable partial denture serving as an interim prosthesis to which artificial teeth will be added as all natural teeth are lost. A transitional denture may become an interim complete d. when all of the natural teeth have been removed from the dental arch.

CID clinical procedure

- The posterior teeth are extracted and the sockets are allowed to heal (This does not affect the aesthetics of the patient).
- An alginate impression is made with the help of a stock tray. and a diagnostic cast is prepared from the impression.
- Two layers of wax are used to block out the undercuts in the dentulous areas of the cast. A custom tray is fabricated over this cast.
- Elastomer is used as the impression material.
- Occlusal rims are fabricated over a temporary denture base covering the edentulous area.

- Posterior teeth setting and try-in are completed.
- The anterior teeth in the master cast are broken away and trimmed up to the cervical margin and smoothed.
- The teeth arrangement should be in harmony with the existing teeth as well as the prosthetic teeth.
- The denture is flaked, de-waxed, packed, processed and finished.
- During the insertion appointment, the remaining anterior teeth are extracted as *atraumatically as possible*, preserving *the soft tissues and bone*.



The direction of the socket should follow the long axis of the tooth.

- General notes Socket Fit Denture are:
 - The teeth sit into sockets of the extracted teeth, gives more natural appearance
 - Esthetically good initially
 - Contraindicated in mandible because of poor stability of lower denture during function
 - Prone to loss of esthetic as resorption continues (Gap formation)
 - Difficult to reline/ rebase or changed to flanged type
 - Have poor retention

- Wherever possible, a flange denture should always be designed.

Alveotomy following interseptal alveolectomy

This procedure is intended to eliminate moderate labial alveolar undercuts so that a flanged denture can be used without that flange distorting the upper lip unduly. The denture is constructed on a working cast which is trimmed to the anticipated contour of the ridge after surgery as follows:

- The gingival margins are marked and the teeth removed.
- Guidelines are drawn on the cast showing the areas and amount of bone needed to be removed.
- All that part of the cast contained within these guide lines is trimmed away and the edges are rounded over.
- A clear acrylic template is processed on a duplicate of this cast and is used as a guide to control the amount of bone removal at operation (the immediate denture itself can be duplicated in clear acrylic stent).

The surgical procedure involves:

- Extraction of the teeth.
- Removal of the associated interseptal bone.
- Collapse of the labial cortical plate of bone and mucoperiosteum, back into the resulting ' gutter'.
- Insertion of the clear acrylic template to check if bone removal has been sufficient. Blanching of the mucosa is clearly seen beneath the template in any area where there is excessive pressure.
- Suturing of the sockets and insertion of the immediate denture.

How long does it take to complete?

- Four to five visits may be necessary for the fabrication phase of an immediate denture, plus any preliminary surgery. For patients requiring a complete immediate denture, the back teeth are often extracted six to eight weeks prior to the fabrication phase. This allows the extraction sites to heal and a better-fitting immediate complete denture to be fabricated.
- The fabrication phase consists of impressions, bite records, tooth selection and try-in of the back teeth. On the day of delivery, you will be seen in oral surgery for extraction of the appropriate teeth, followed immediately by the insertion of the immediate denture.

Immediate Partial Denture:

- Normally made of acrylic with “ball clasps”
- No posterior teeth only acrylic “bite pads”
- Transitional
- Replaced after healing with cast RPD

Explanation to the patient concerning immediate dentures:

- Do not fit as well as normal complete dentures.
- The pain of the extractions, in addition to the sore spots caused by the immediate denture, will make the first week or two after insertion difficult.
- It will be difficult to eat and speak initially
- The esthetics may be unpredictable because an anterior try-in is not possible
- Immediate dentures must be worn for the first 24 hours without being removed by the patient. If they are removed, they may not be able to be reinserted for 3 to 4 days. The dentist will remove them at the 24 hour visit.
- Immediate dentures will “loosen” during healing, tissue conditioners will be required

- 6 to 9 months after insertion at least a reline will need to be done, possibly a remake. The patient is responsible for fees.

DIAGNOSIS, TREATMENT PLANNING, AND PROGNOSIS Which Type of Immediate Denture Should Be Prescribed

- In some cases, the presence of numerous posterior teeth and the need for other hard and soft tissue related procedures can complicate treatment. In some patients, the sequelae of advanced periodontal disease, including aberrant occlusal relationships, might require a "staged" surgical approach to the final objective of a definitive prosthesis. Extracting the posterior teeth and performing other necessary procedures first in these patients can lead to predictable results for the CID.
- However for other patients, the idea of a period without posterior teeth is impossible to imagine.