Prosthetic Treatment Options In Elderly Patients

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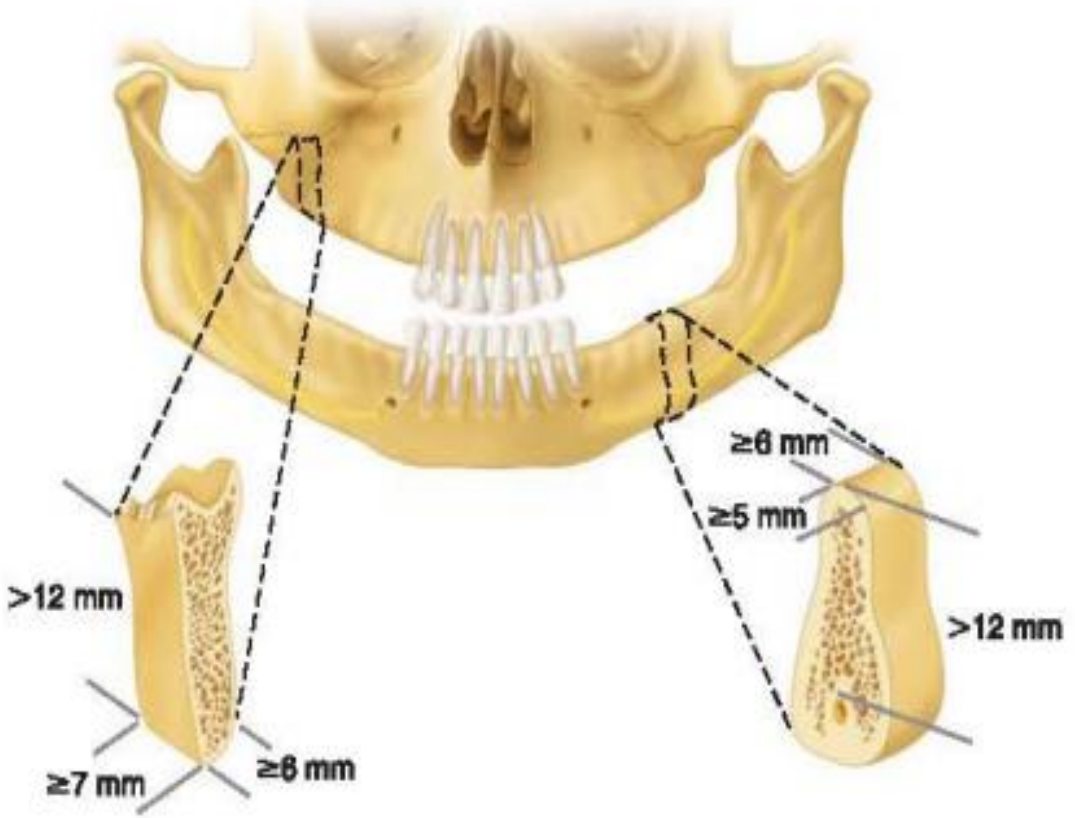
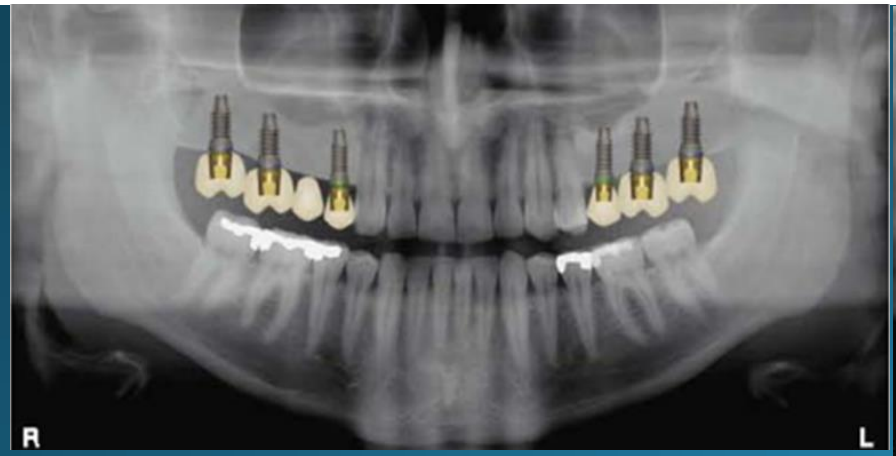
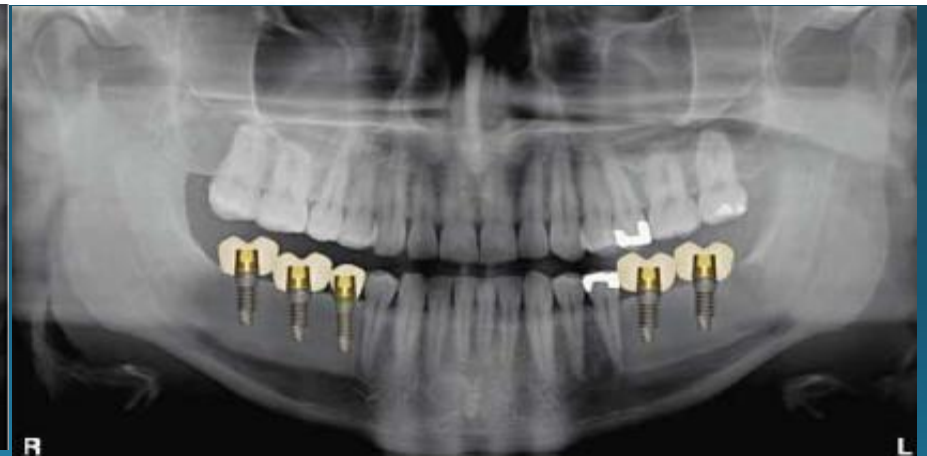
Fixed Prosthesis in Elderly Patients

FIGURE 19-1. A class I, division A dental arch has bilateral posterior missing teeth and abundant bone volume in the edentulous sites.







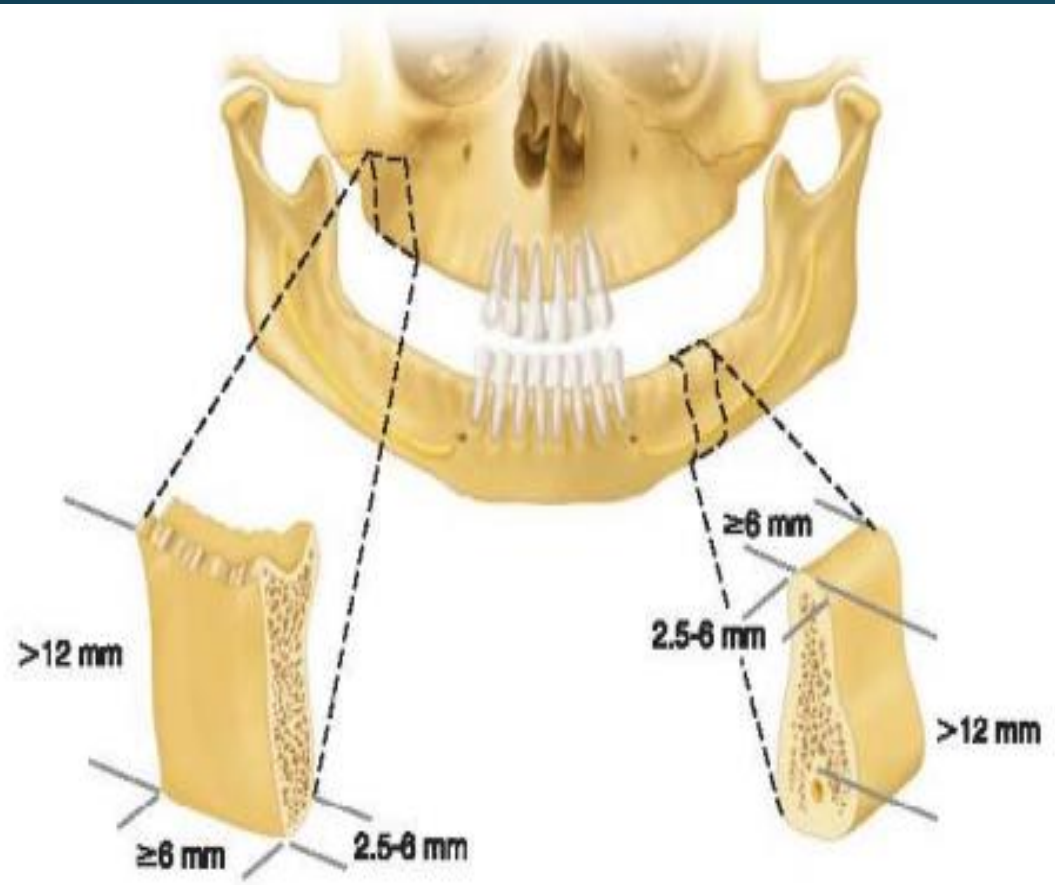
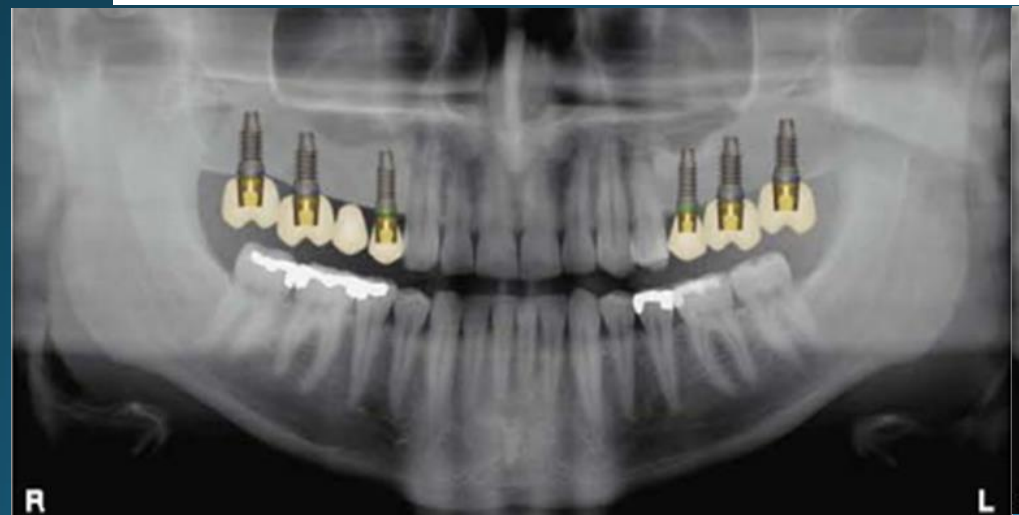
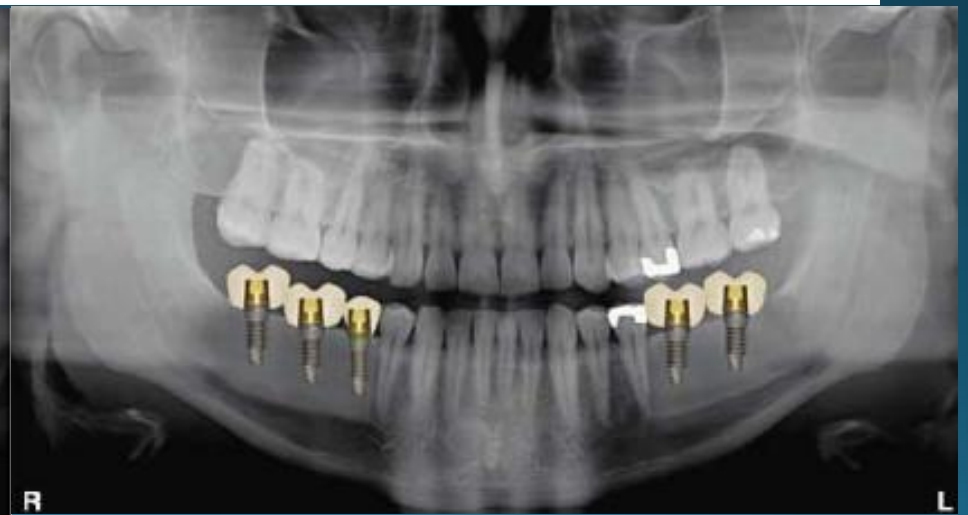
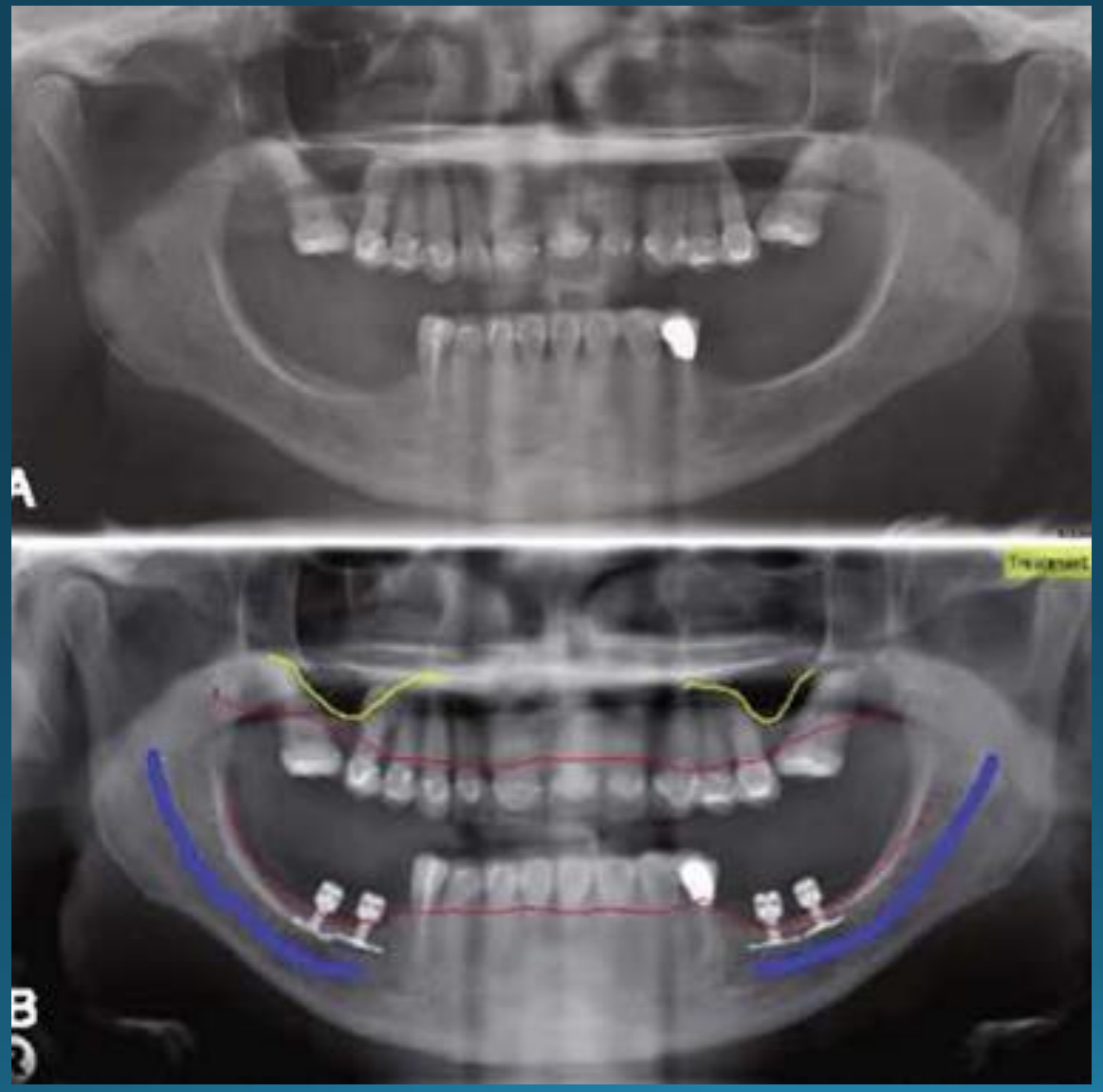


FIGURE 19-4. A class I, division B dental arch has adequate height of bone but is barely sufficient in width.





Moderate to Severe Bone Loss (Mandible V.S Maxilla)



Severe Bone Loss (Mandible V.S Maxilla)

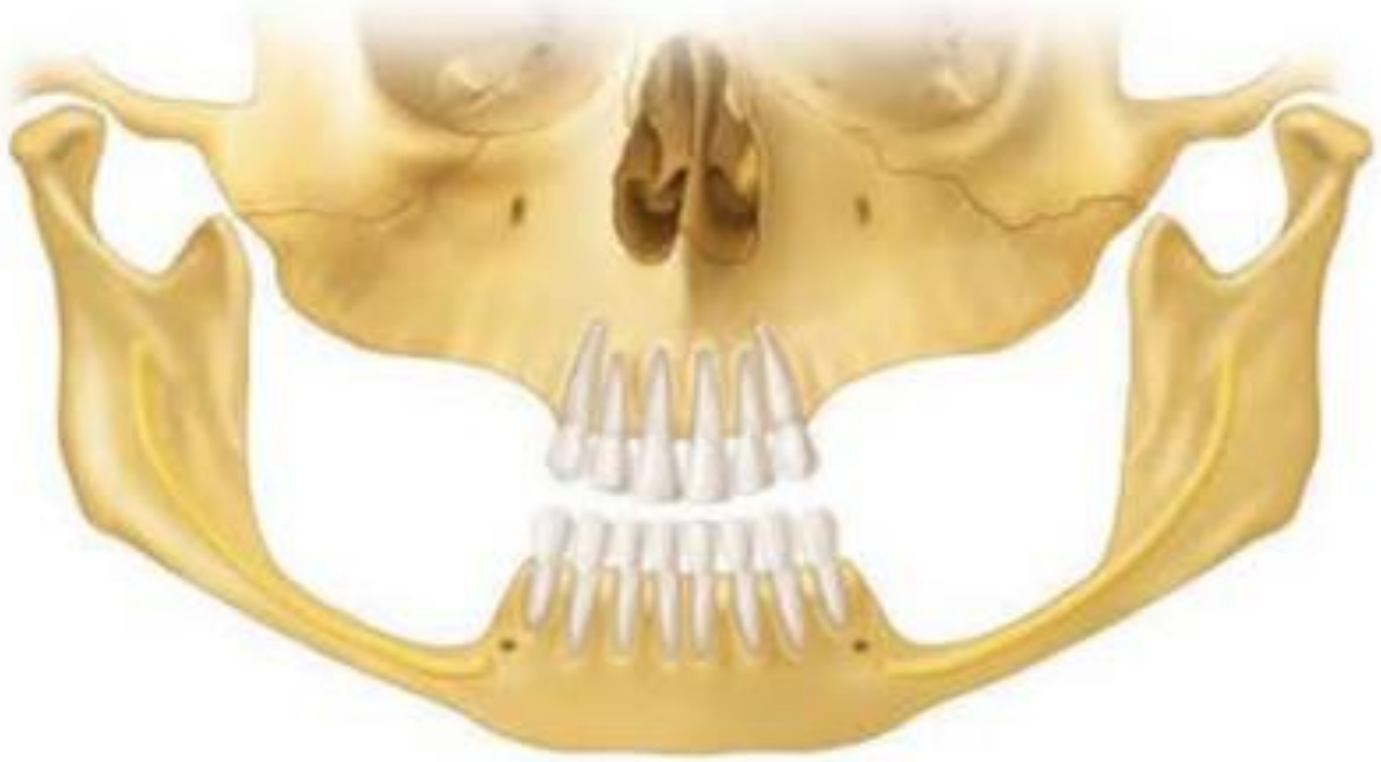
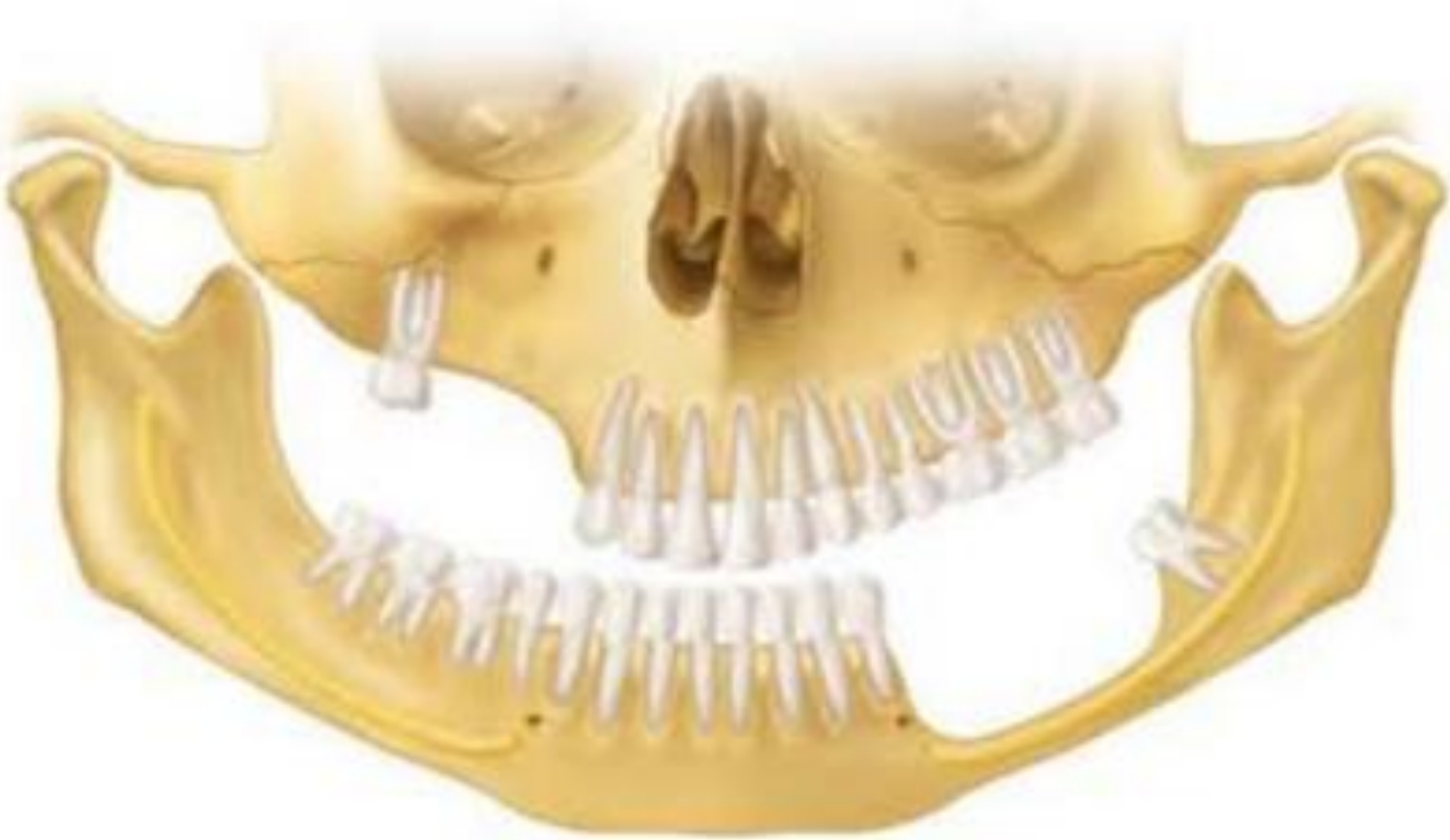


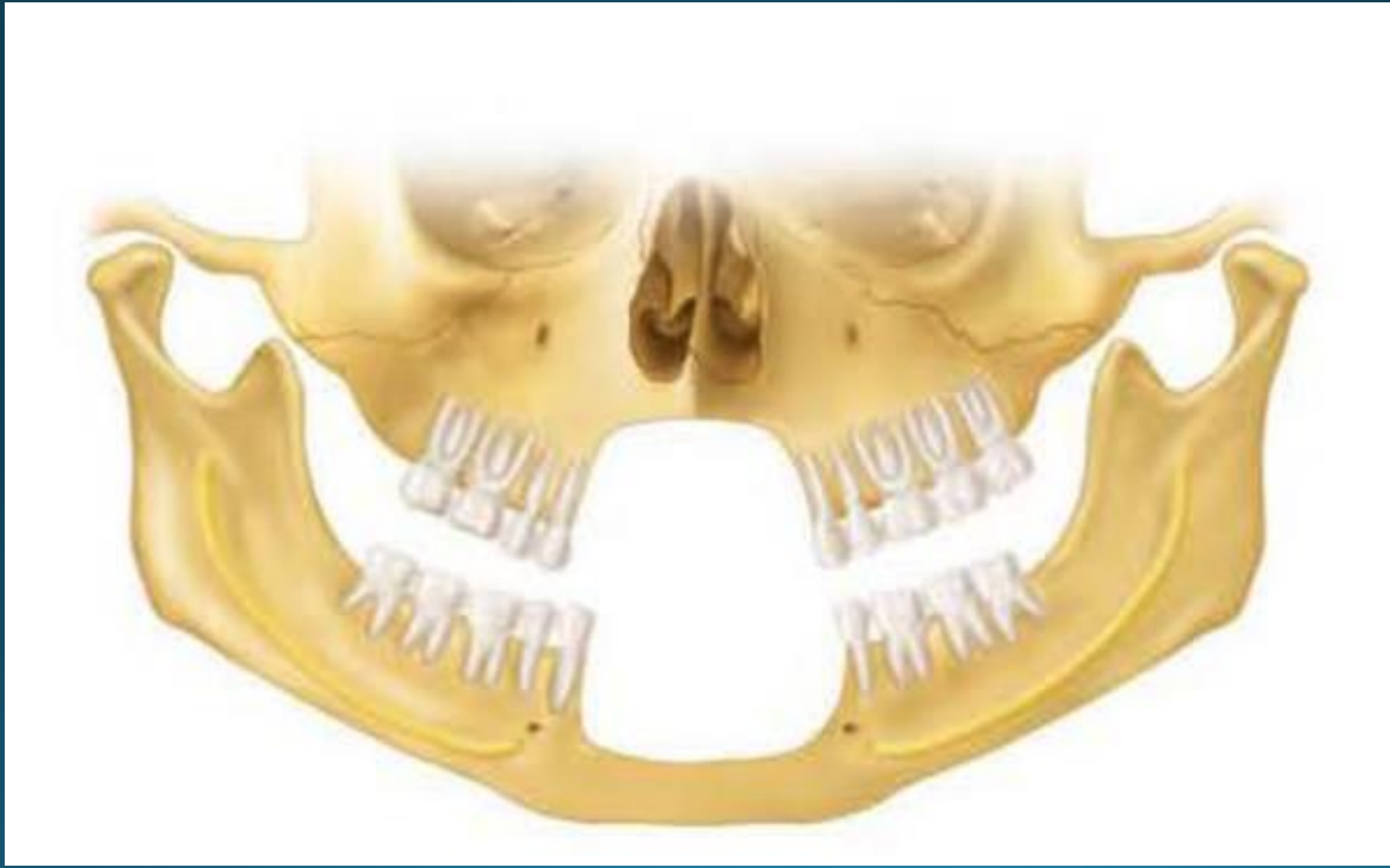
FIGURE 19-6. A class I, division D patient is usually seen in the maxilla when the maxillary sinus has expanded and less than 7 mm of bone is present.

Unilateral Severe Bone Loss (Mandible V.S Maxilla)

Mandible V.S Maxilla



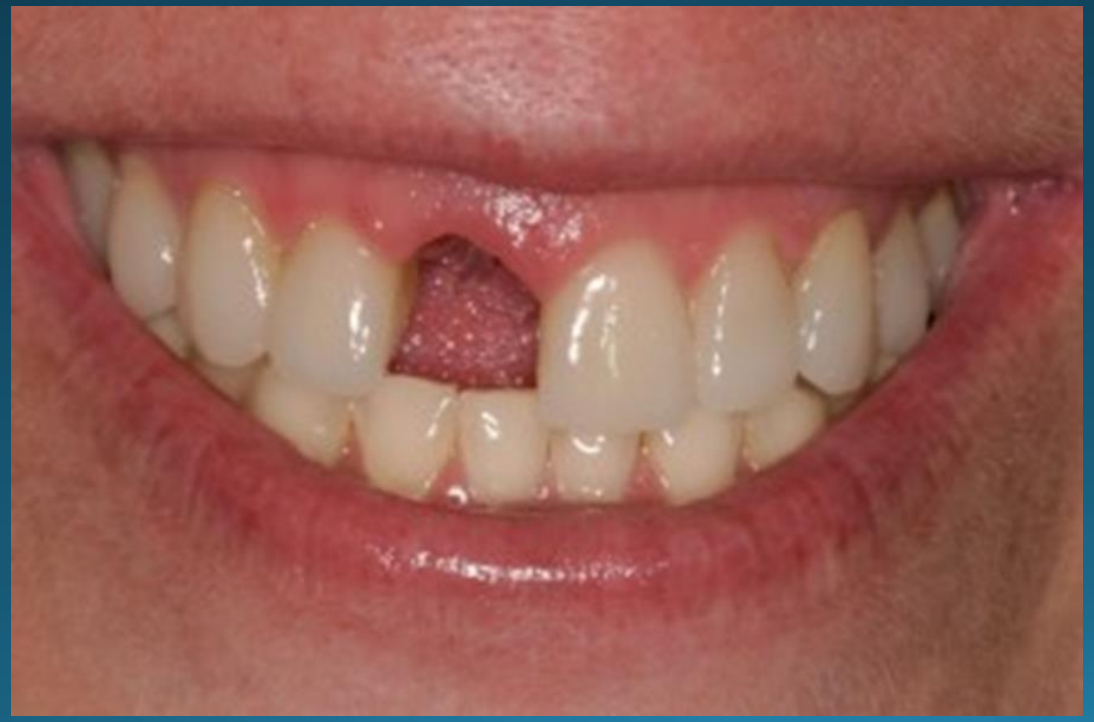
Severe Bone Loss In Anterior Region
Mandible V.S Maxilla

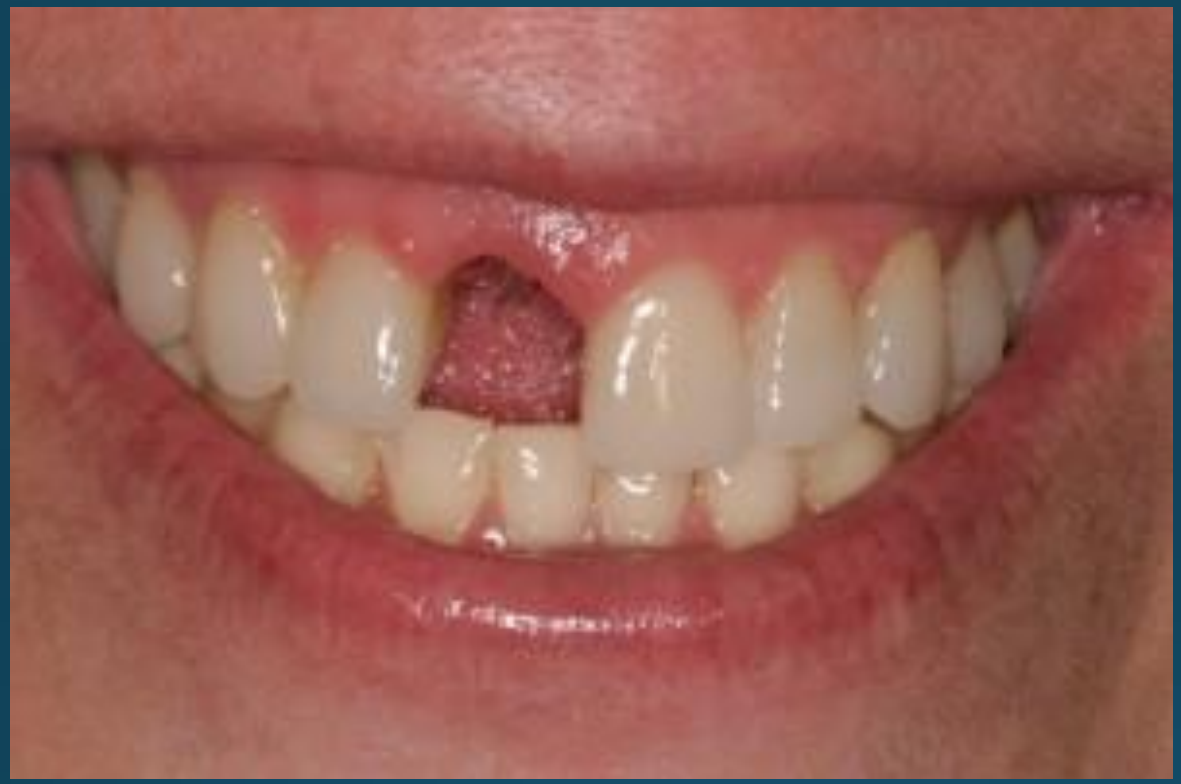


Esthetic Zone(High Lip Line-Gummy Smile)

Hard and Soft Tissue Management (Graft - GBR - GTR)

Temporary Crown(s)

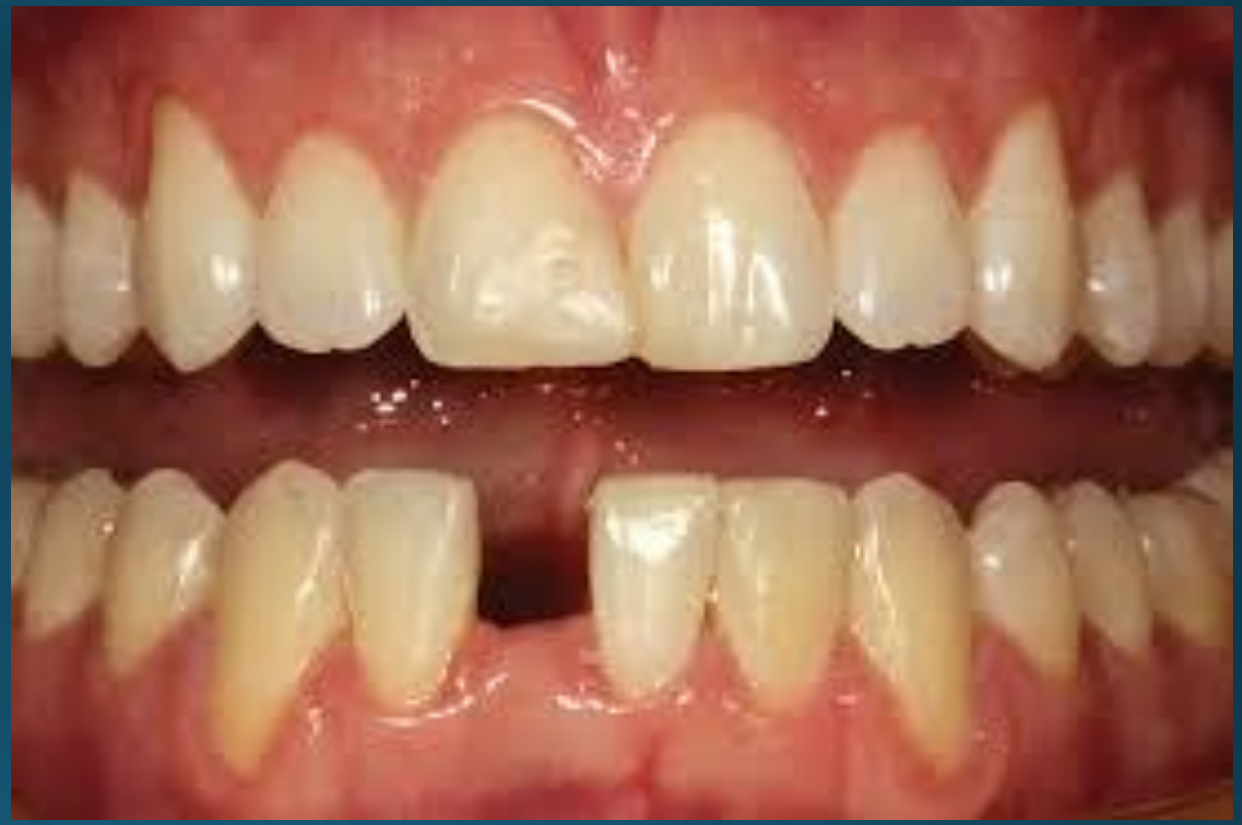




Treatment Options

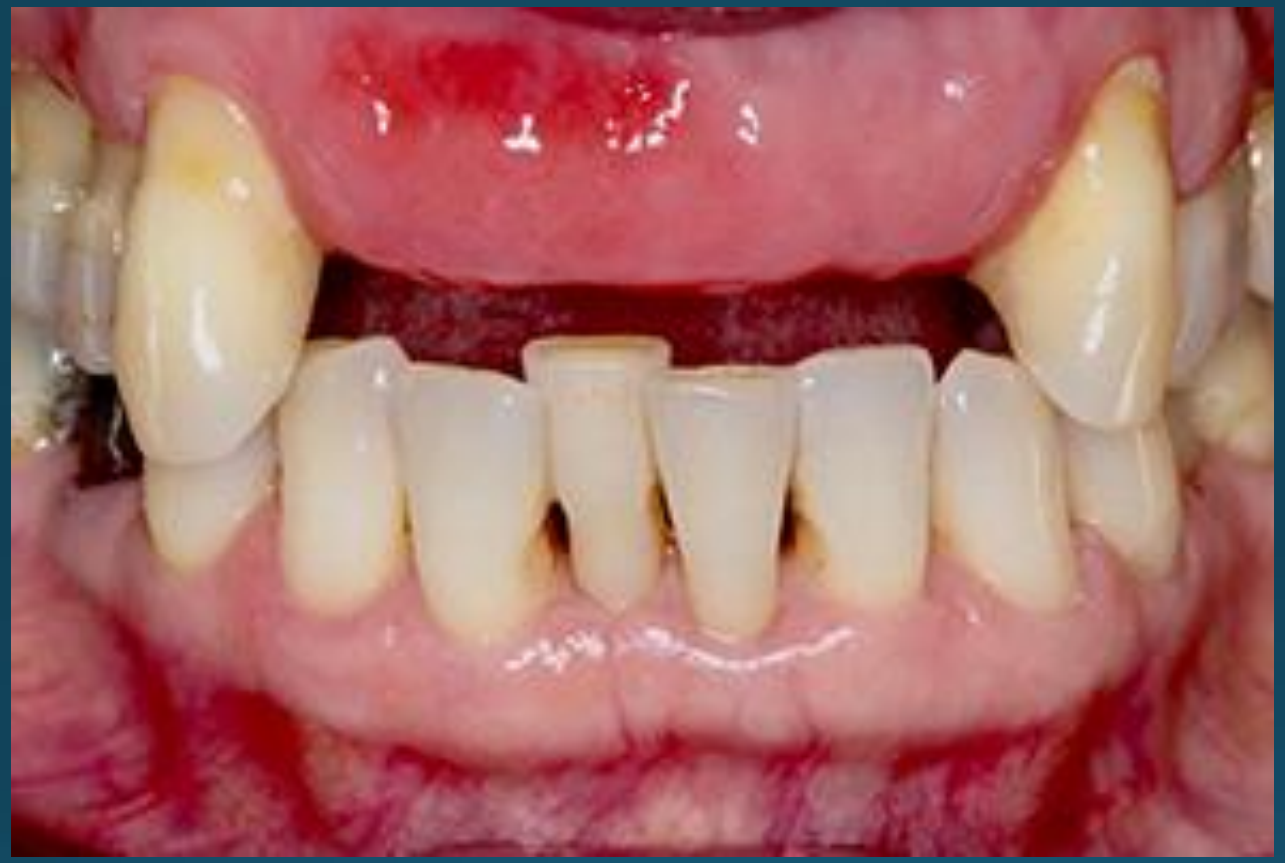
- Implant(s)
- FDP(conventional – Maryland bridge – FRC ….)
- RDP (interim)

Lateral Incisor (s)



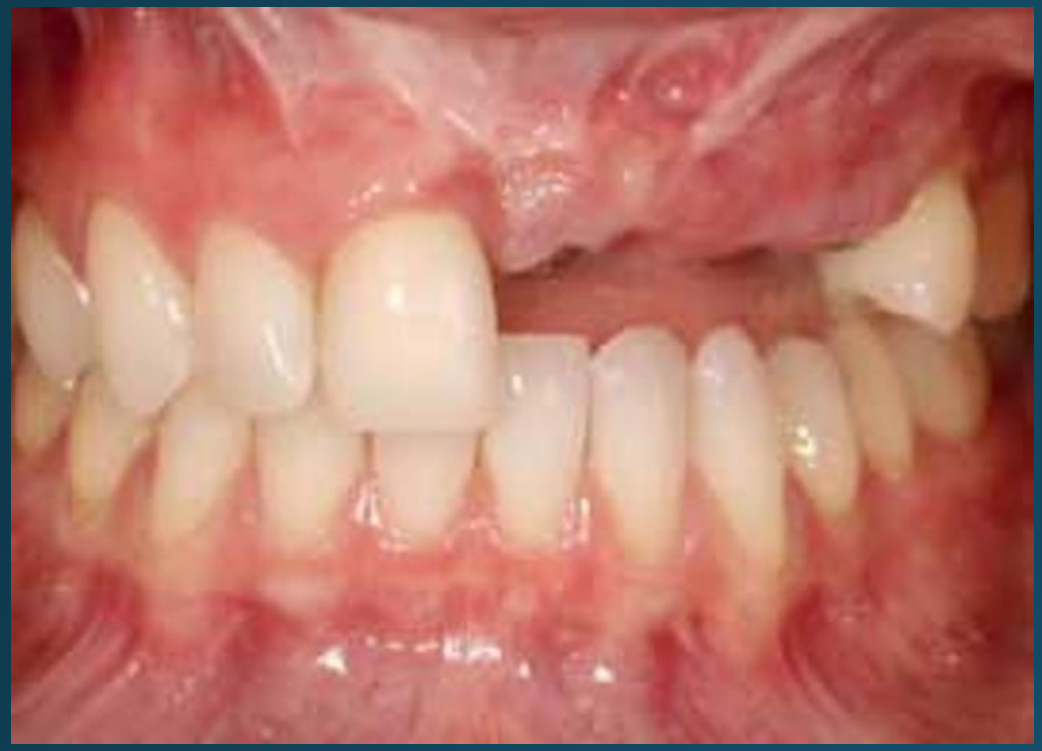
Treatment Options

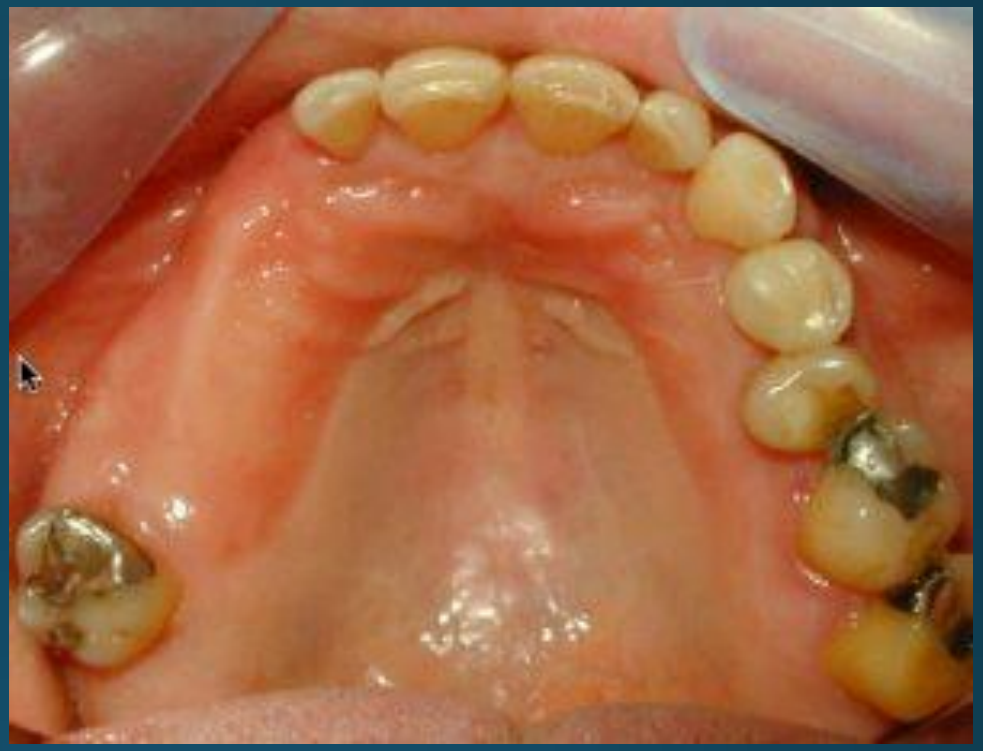
- Implant(s)
- FDP(conventional – Maryland bridge – Cantilever - FRC ….)
- RDP (interim)



Treatment Options

Implants (three/two fixture)
FDP(conventional- four abutments)
RPD





Treatment Options

Implants

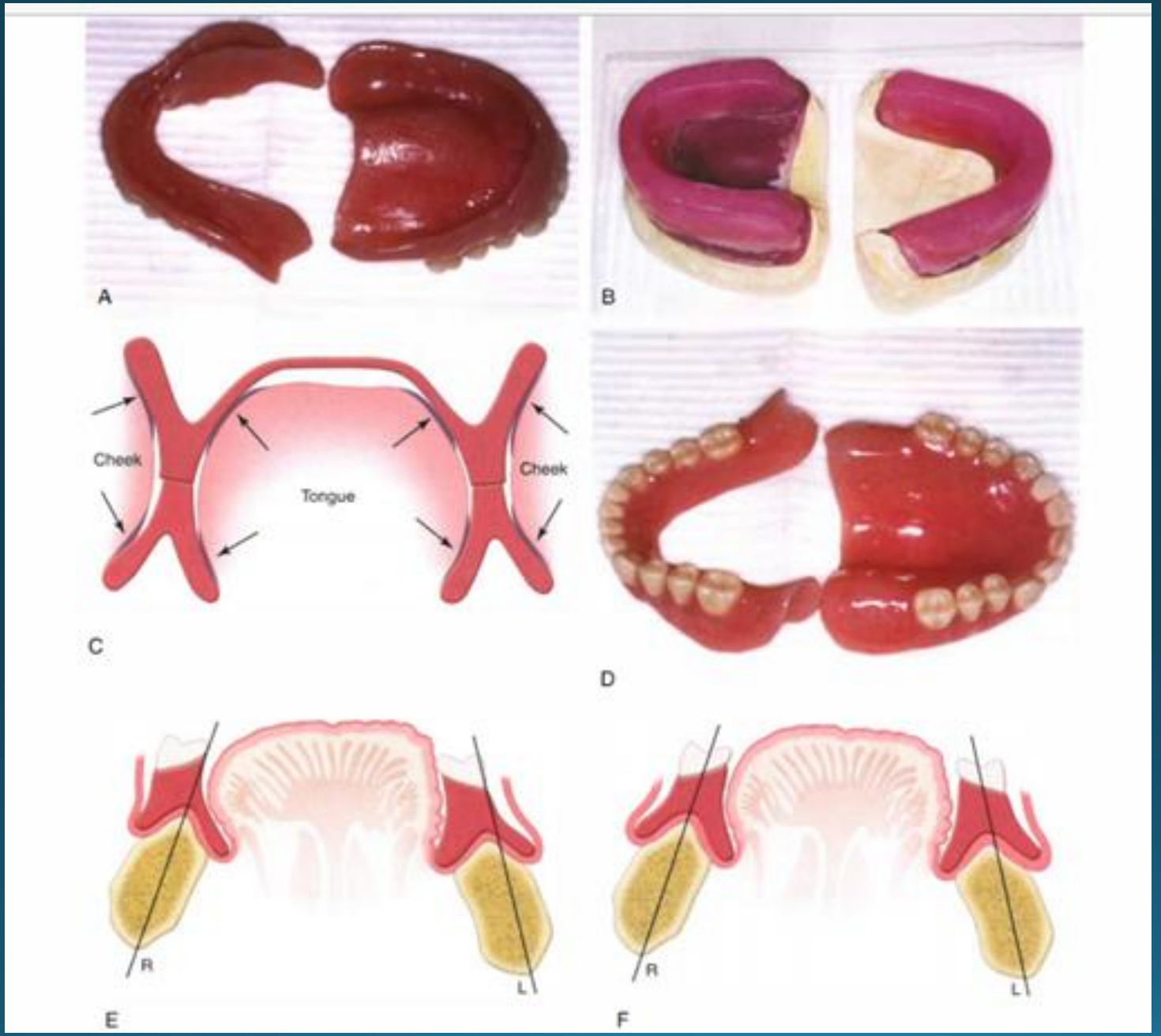
RPD (Removable Partial Denture)

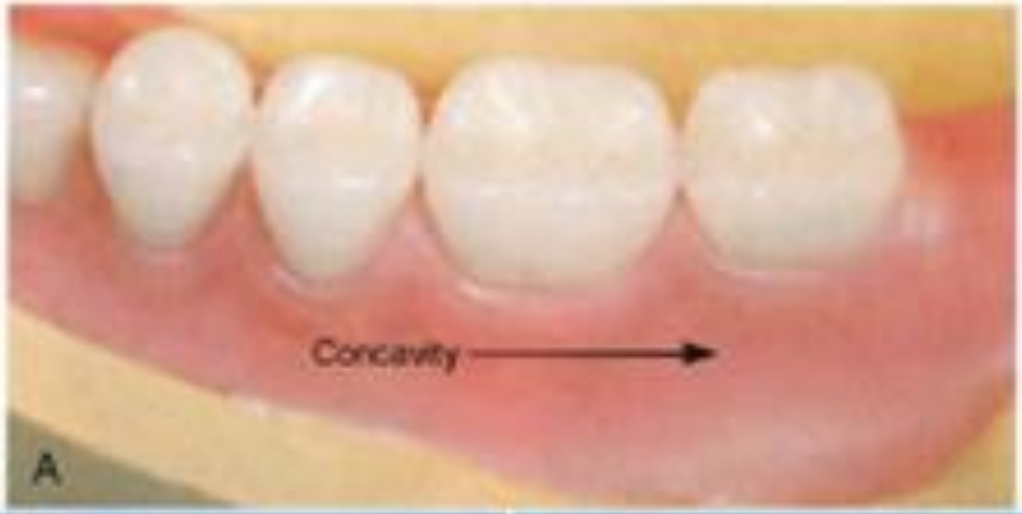
Treatment Options

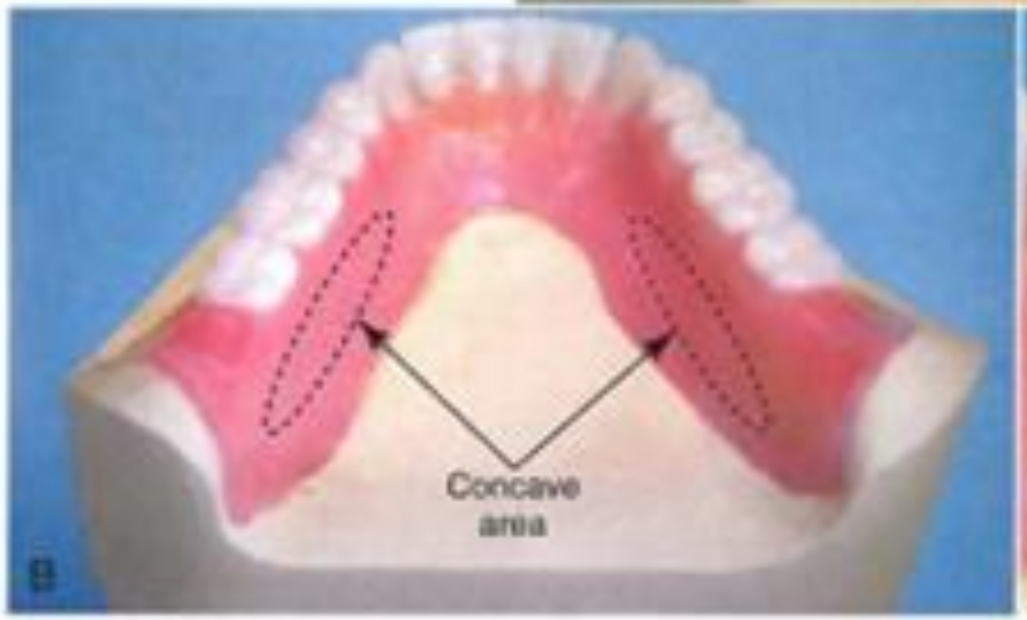
Implants

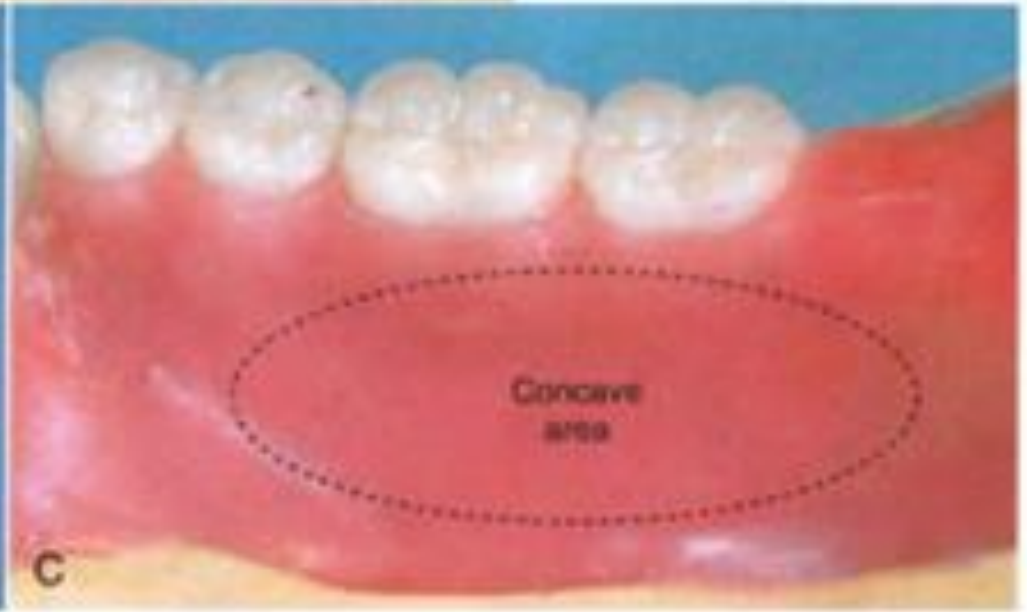
RPD (Removable Partial Denture)

Conventional Complete Dentures


A
B
Cheek
Tongue
Cheek
C
D
R
L
E
R
L
F


Concavity
A


Concave
area
B


Concave
area
C

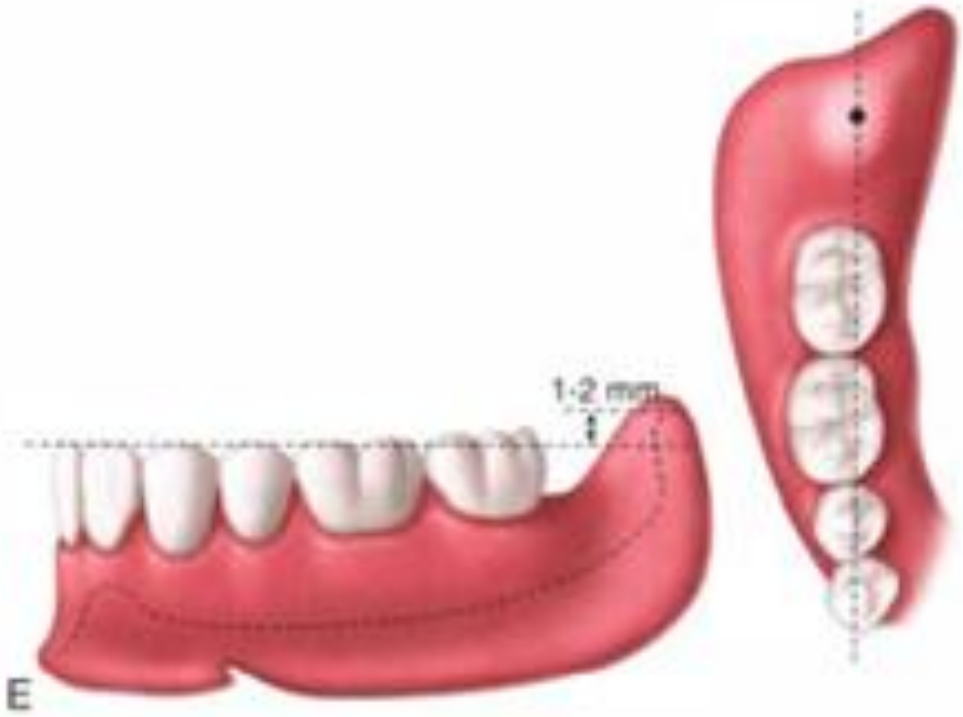
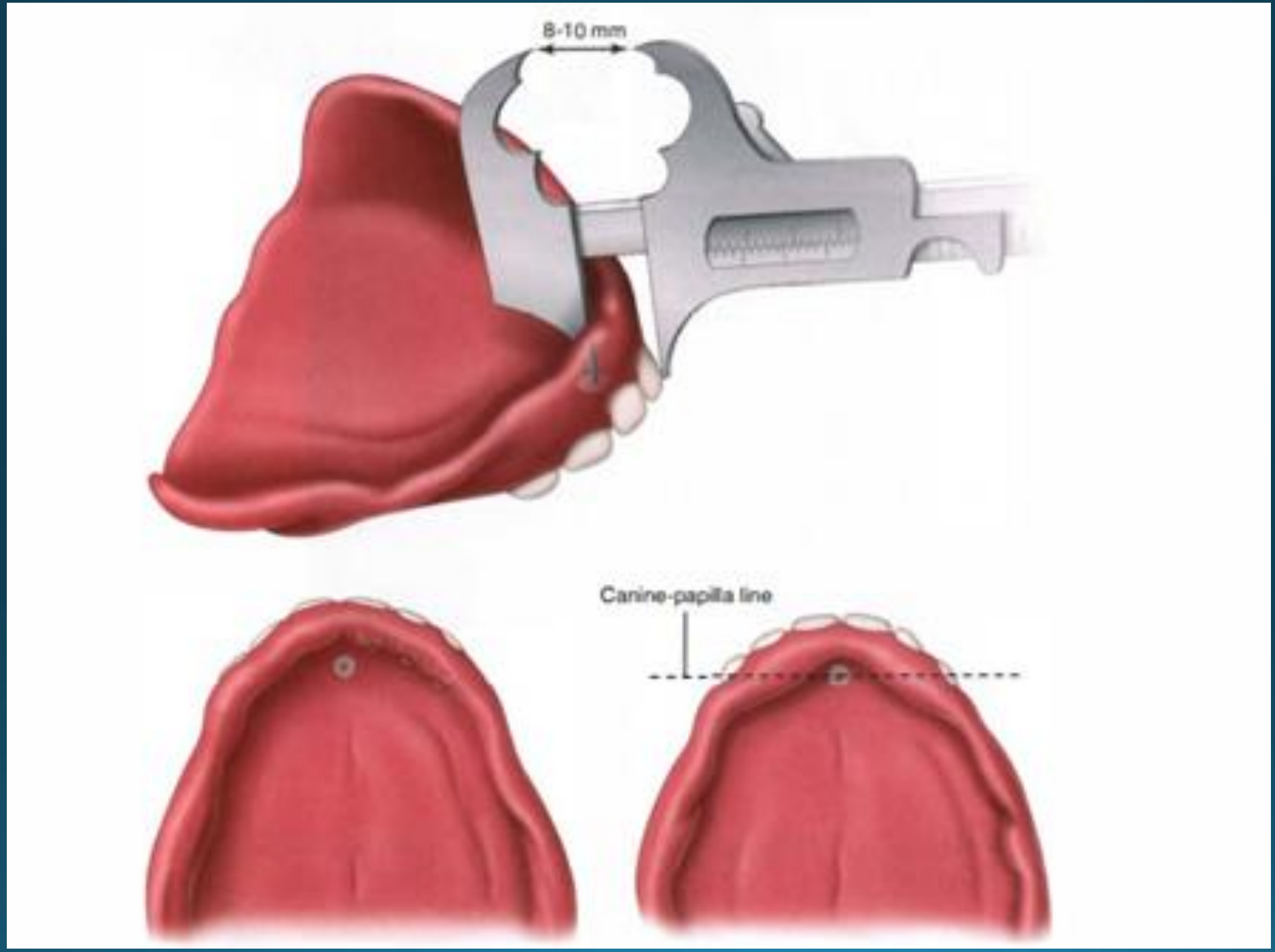


Figure 9-4 **A** and **B**, A Kennedy class I partially edentulous mandible and the removable partial denture designed for it underscore the position of the artificial posterior teeth arrangement that is compatible with the neutral zone concept. The same principle applies to a dentate (albeit a restored one) mandibular dentition (**C**) and the edentulous mandibular arch, with anterior teeth in place (**D**) as one of the landmark guides for completing the posterior teeth setup. In all these clinical situations, a virtually straight or very slightly curved line drawn from lingual of the retromolar pad to a point just lingual to the crest of the ridge in the premolar region, can act as a guide for positioning artificial posterior teeth (**E**). Note that the posterior height of the occlusal plane is approximately two thirds of the way up the retromolar pad. This corresponds to about 1 to 2 mm below the top of the anatomical landmark (**E**).


8-10 mm
Canine-papilla line

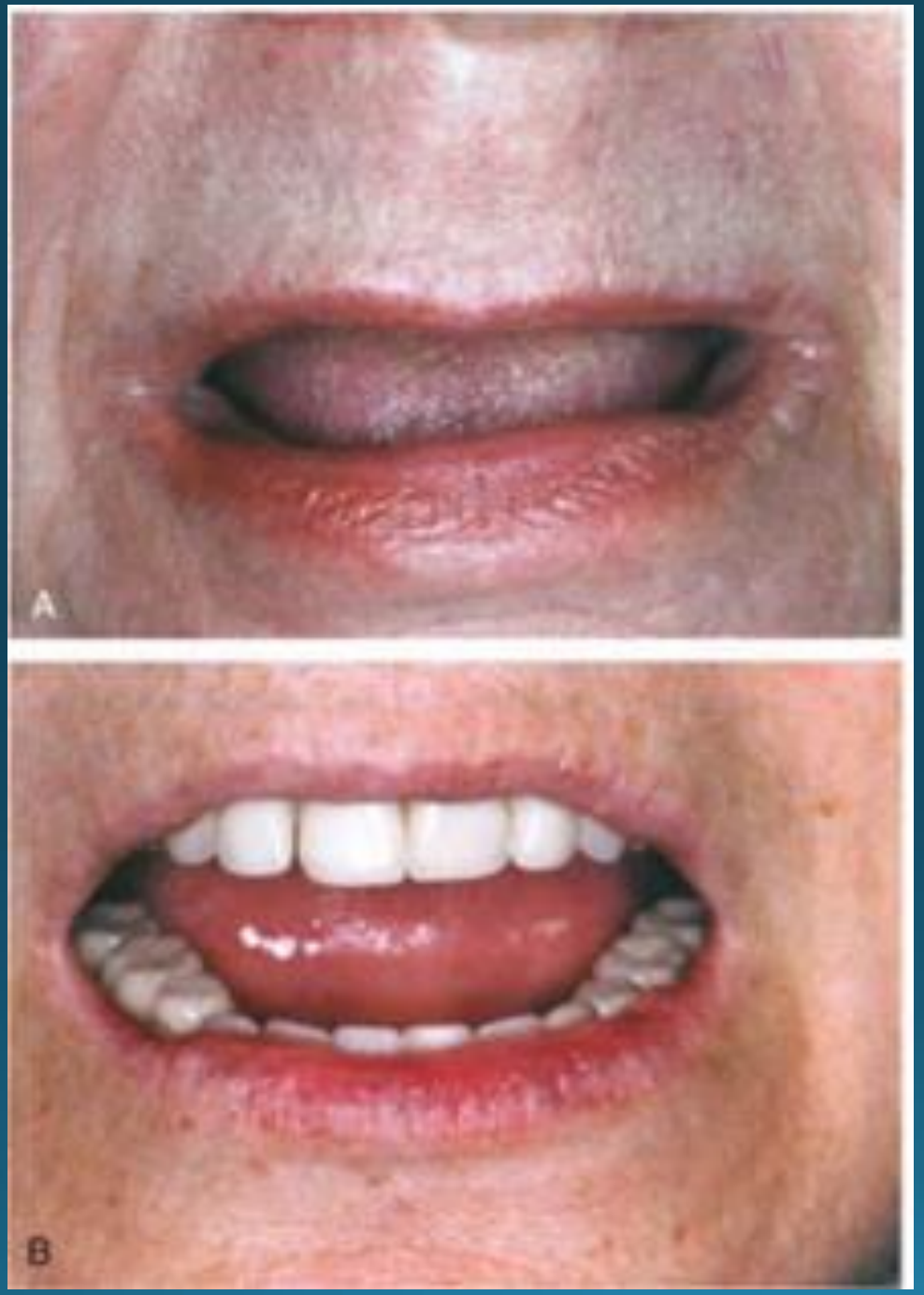

A
B

TABLE 11-1 TWENTY-SEVEN POINT CHECKLIST FOR THE WAX TRY-IN APPOINTMENT

Action to Check	What to Check	Response and Action
Telephone before appointment	Wax-ups ready on time?	Confirm with lab 48 hours before the appointment
	Spouse or others coming to appointment?	Yes, or agree to accept decisions
Chairside		
Existing dentures in place	In occlusion: record VDO at two skin points	Record to compare with wax-up
	Smiling: visibility, interarch space, and lip support	
Dentures out to compare to wax-up	Conformative—should be similar	Reorder teeth if color, size not correct
	Reorganized appt should be different as planned	Similar/different as planned
	Upper central to incisive papilla intaglio millimeters and angle	
	Lower central to ridge intaglio millimeters and angle	
Wax-up in mouth		
Lips apart mouth breathing	Midline in center of face and lip vermilion	Okay or move
	Anterior plane parallel eye pupils	Okay or reset tilt up/down
	Upper teeth correct length	Okay, move up/down
	Upper teeth adequate lip support	Okay, move in/out
	Adequate lip support	Add or remove labial wax for desired lip support
	Lower teeth just visible as appropriate	Okay or move; too much/little display needs occlusal plane or VDO change
Gagging	Correct PPS position: Fovea palatinae through hamular notches	Reduce wax base if excess palatal extension; counsel; can reduce denture palate but retention may drop; try first; assess for reduction; counsel.
	VDO: Excess VDO can create gagging sensation	
VDO	Occlusion: compare to previous VDO at two skin points	Assess need to change VDO
	Upper/lower teeth and gingival visibility	Subjective: All look/feel okay
	Facial profile and proportions mid/lower face	Reset VDO as needed
	Relaxed facial posture	
	Interarch space with breathing, swallowing, speaking	
	Patient perception of jaw position	
Guided jaw closure	THE TESTS	Okay or remount
	Do teeth touch in mouth the same as on articulator?	
	Are wax-ups stable between first touch and all closed?	
Smile!	Check midline again	Okay or move
	Anteriors and bicuspids pleasing visibility	Okay or change VDO up or down
	Posteriors at same level on both sides	Okay or move sides up/down to match
	Appropriate negative space between upper and lower teeth	Okay or reassess VDO and overbite/overjet
	Gingival display	Okay or carve back wax gingiva
		Excess gingiva may mean excess VDO
Speaking 50s	Upper teeth lower lip	Okay or uppers too short or long
Speaking 60s	Overbite/overjet and tongue posture	Okay or increase minimal overbite
		Decrease excess overjet
Swallowing	Patient subjective comfort and stability	Okay or reduce lingual flanges
	Wax-up intact? If teeth moved from secure wax-up, VDO and/or jaw relation may need change	Reduce excess VDO
Relaxed jaw posture	Protrusive posturing	Okay or increase overjet
Query	Tooth characterization—wear, chips, restorations?	Okay or create
Query	Gingival color okay?	Confirm gingival shade tabs
Query	Anything else?	Address questions
Query	Spouse and others satisfied?	Offer take home if absent
Query	All satisfied? Politely ask again	Confirm satisfaction, agreement to proceed, and fee to be paid next appointment
		Celebrate successful treatment to date

PPS, Posterior palatal seal; *VDO*, vertical dimension of occlusion.

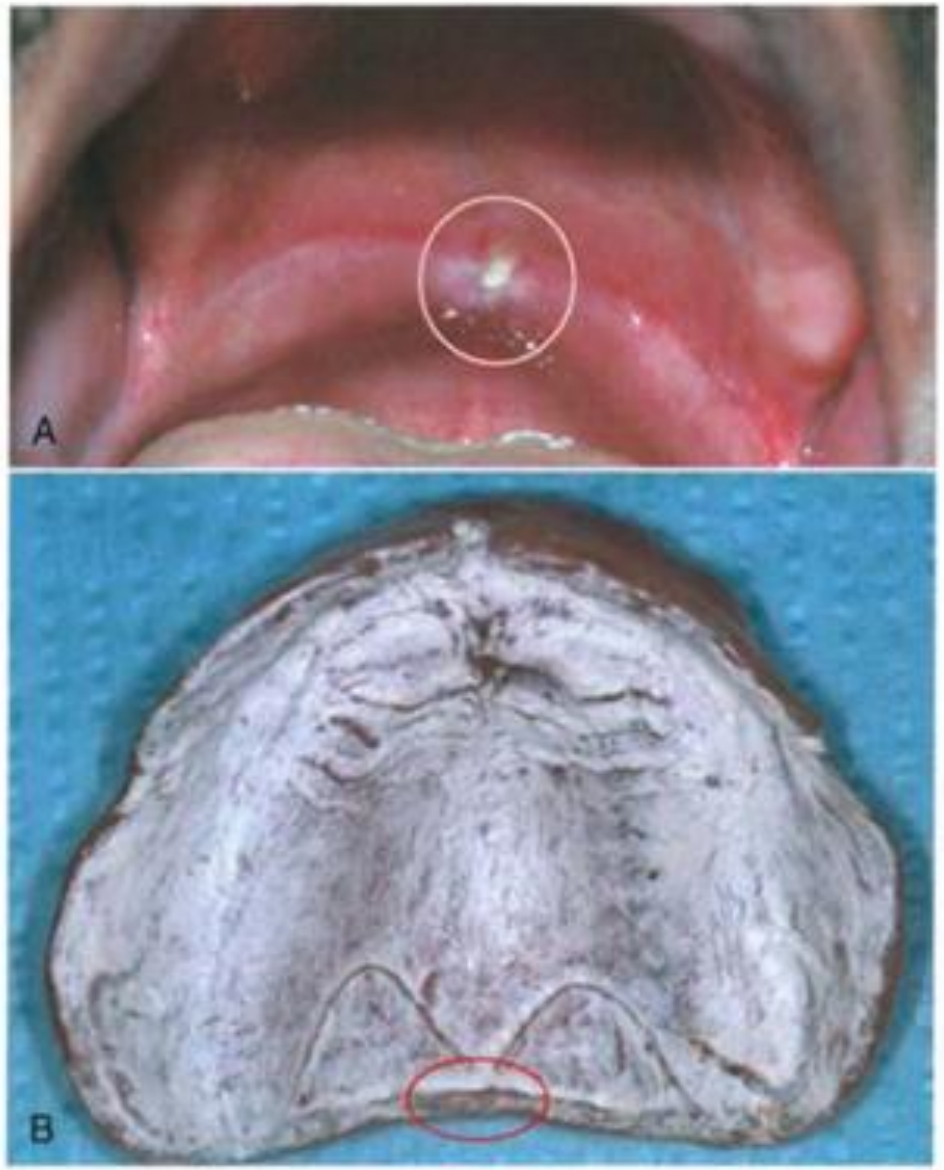
TABLE 11-2 REMOUNTS FOR COMPLETE PROSTHESES IN DENTISTRY

Remount	When	Why
#1—Wax-up	If needed, at wax-up try-in appointment	Models on the articulator have to be in same relation as the patient's mouth. If the wax-up is different in the mouth compared with on the articulator, then make a record to correctly remount the models. Then reset the teeth. It is best to find this out now, before processing.
#2—Processed	In laboratory while processed dentures are deflasked, but still on models	Processing changes should raise the teeth only slightly. When dentures are remounted, the articulator pin is lifted off the table 1 to 3 mm. This slight VDO increase allows refinement of occlusion/articulation with teeth secure in final acrylic rather than flexible wax. The preprocessed VDO is recreated during this adjustment.
#3—Delivery	If needed, at delivery appointment, after bases have had PIP adjustment.	Despite all efforts for accuracy, small errors of all steps are now accumulated. Occlusion/articulation can be precisely refined because dentures are now completely processed. Large errors may need teeth to be cut off and reset.

PIP, Pressure-indicating paste; *VDO,* vertical dimension of occlusion.

Prosthesis Insertion and Follow-up Appointments

Figure 12-16 The PIP pattern indicates severe pressure on the portion of the denture that overlies the torus.



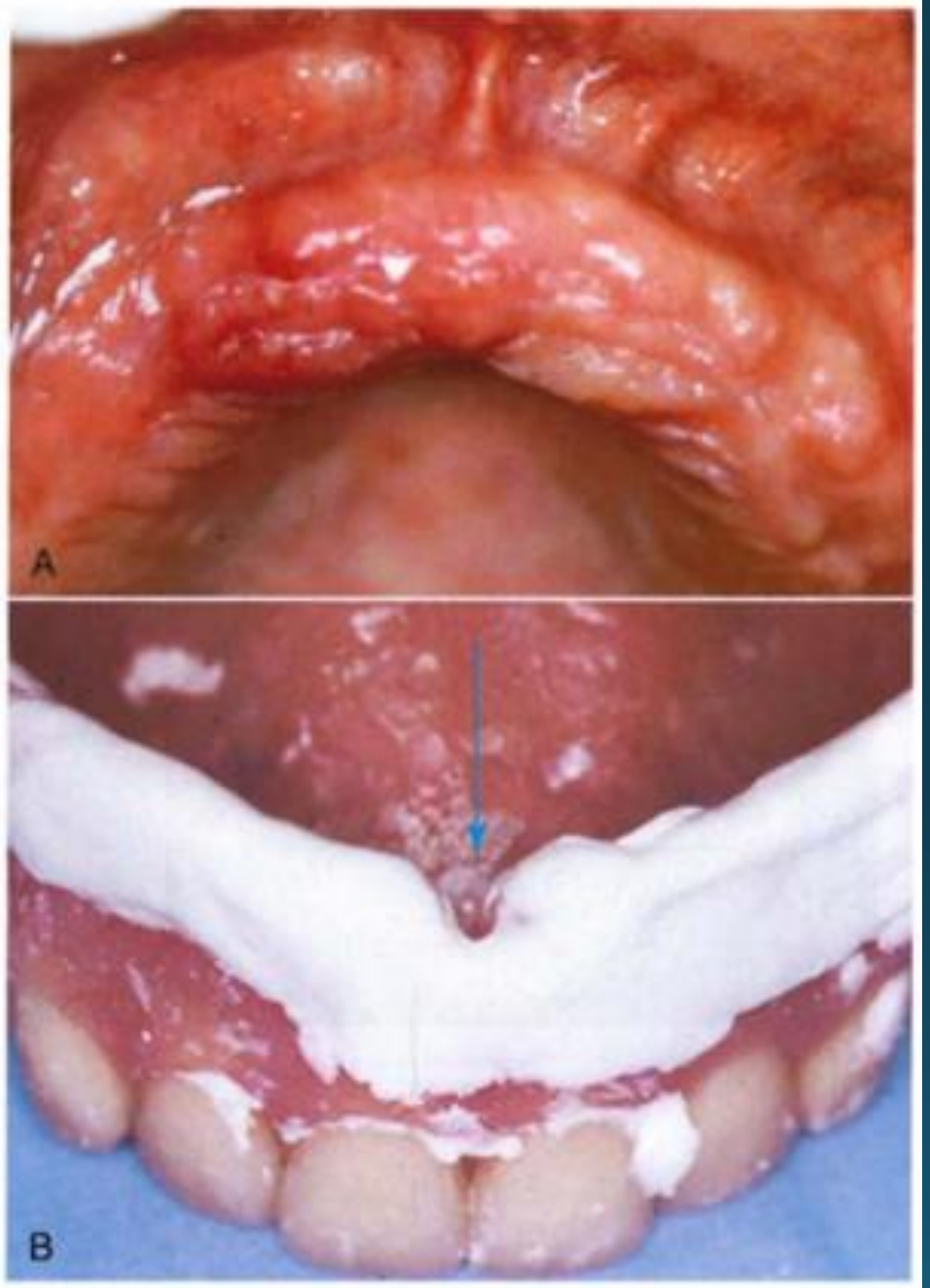


Figure 12-24 **A,** Note the ulceration at the midline of the posterior palatal seal area. **B,** The PIP pattern reveals the bead is too deep and too sharp.

Mandibular Implant Supported Over Dentures

BOX 23-2 Implant Overdenture Advantages versus Fixed Prosthesis

- Fewer implants (RP-5)
- Less bone grafting required before treatment
- Less specific implant placement
- Improved esthetics
- Denture teeth
- Labial flange
- Soft tissue drape replaced by acrylic
- Soft tissue considerations
- Improved perilmplant probing (follow-up)
- Hygiene
- Reduced stress
- Nocturnal parafunction (remove prosthesis at night)
- Stress relief attachment
- Lower cost and laboratory cost (RP-5)
- Fewer implants (RP-5)
- Less bone grafting (RP-5)
- Easy repair
- Laboratory cost decrease (RP-5)
- Transitional device is less demanding than a fixed restoration

BOX 23-3 Overdenture Disadvantages

- Psychological (need for nonremovable teeth)
- Greater abutment crown height space required
- More long-term maintenance required
  - Attachments (change)
  - Relines (RP-5)
  - New prosthesis every 7 years
- Continued posterior bone loss
- Food Impaction
- Movement (RP-5)

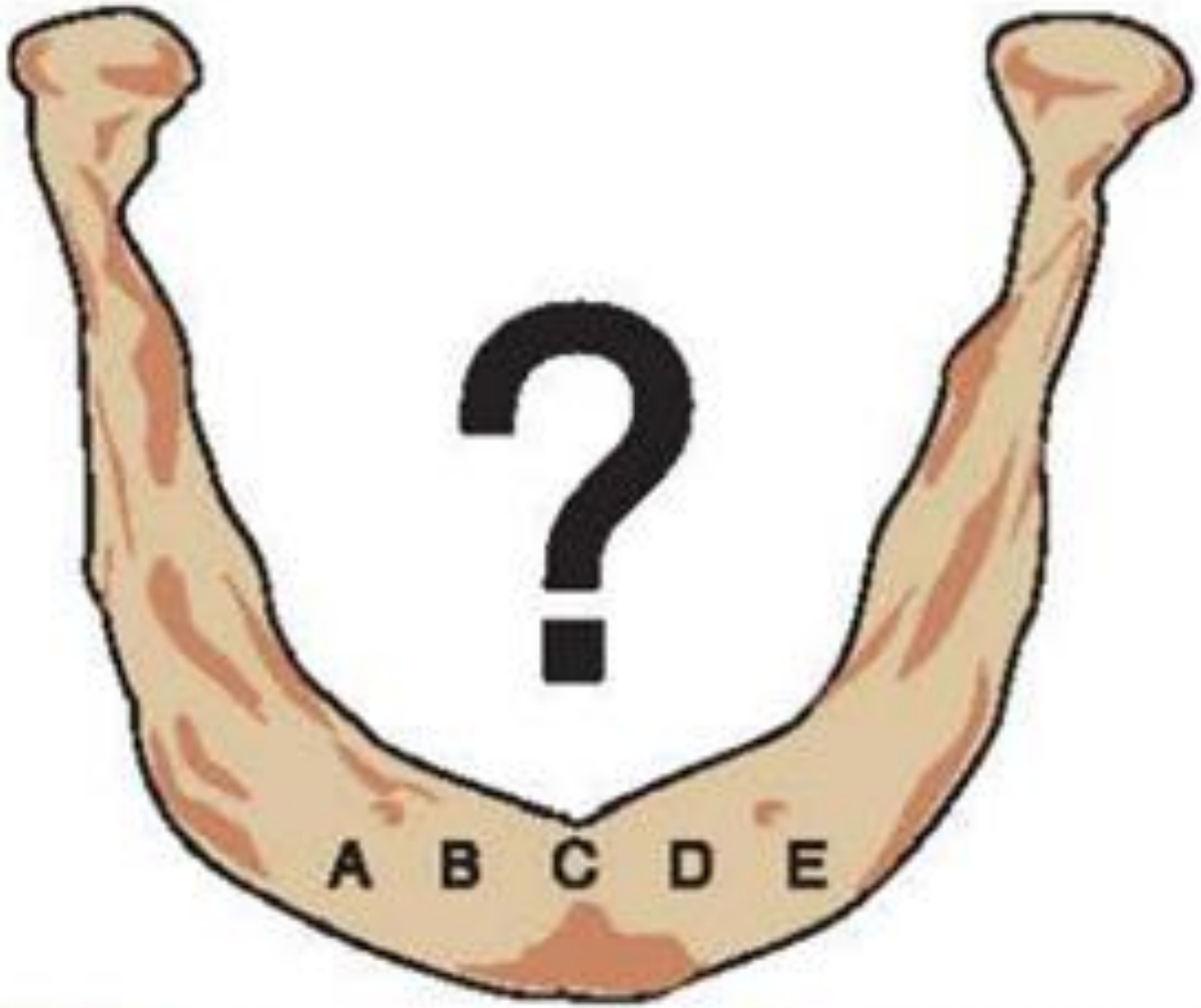
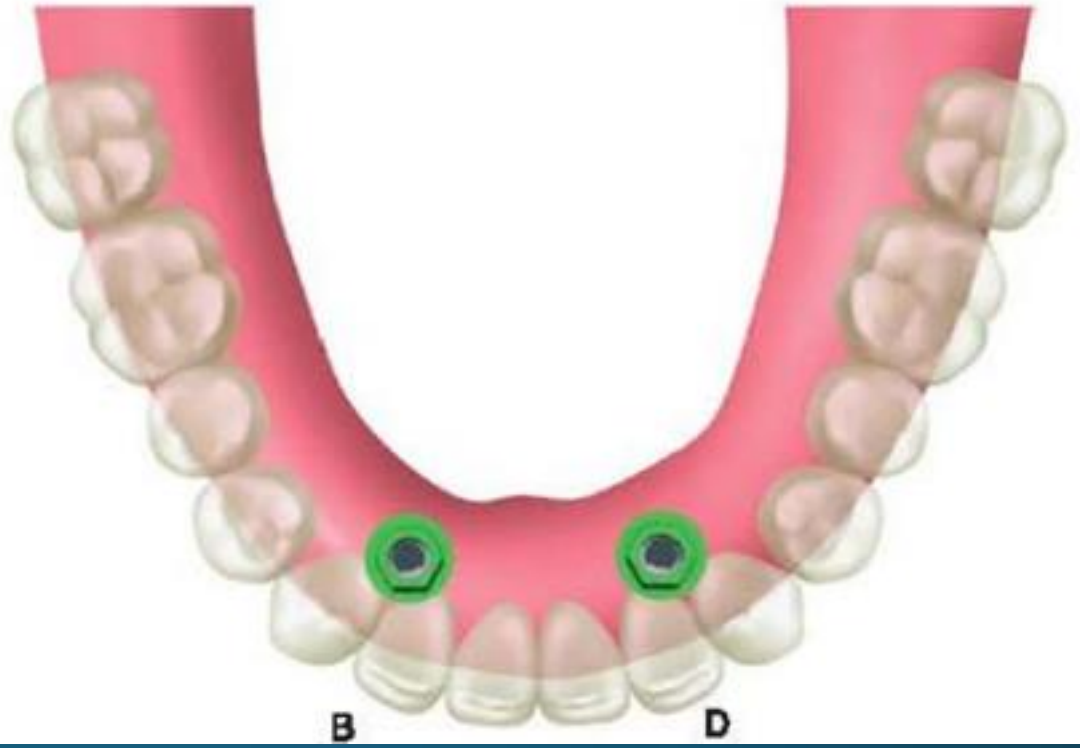


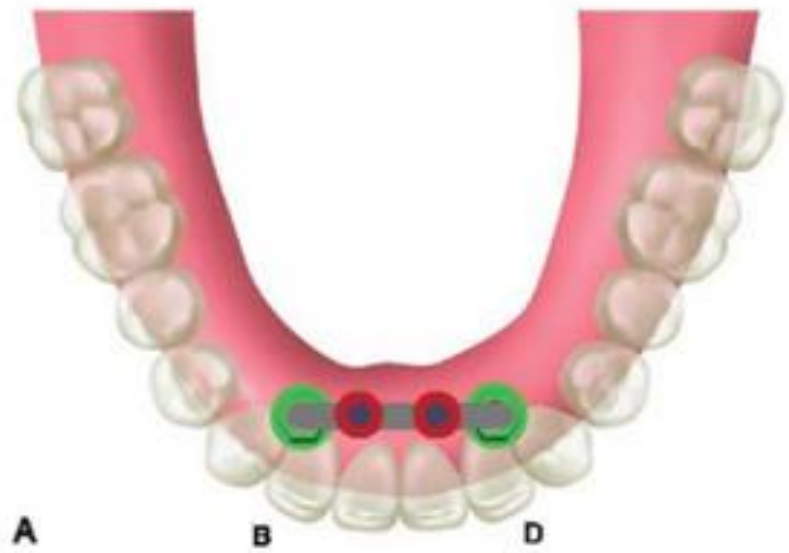
FIGURE 23-15. The anterior mandible is divided into five equal columns of bone between the mental foramens: A, B, C, D, and E.

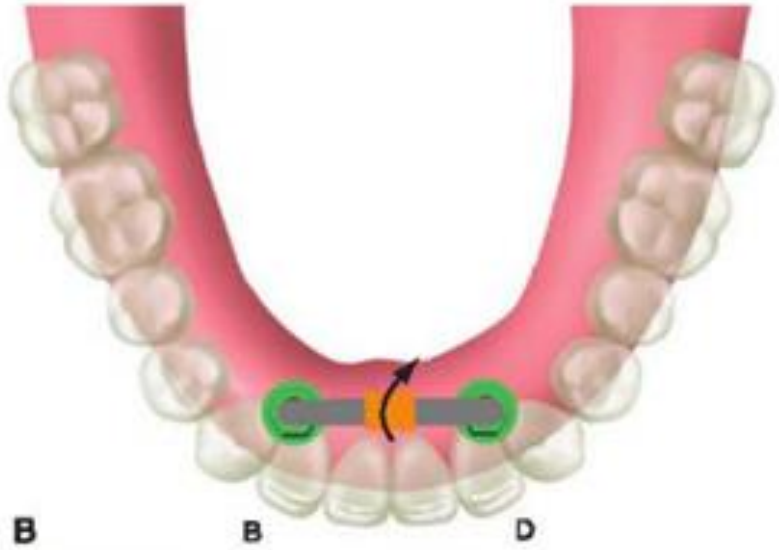
Option	Description	Removable Prosthesis Type 5
OD-1	Implants in the B and D positions independent of each other	Ideal denture Ideal anterior and posterior ridge form Cost is a major factor Retention only PM-6
OD-2	Implants in the B and D positions rigidly joined by a bar	Ideal posterior ridge form Ideal denture Cost is a major factor Retention and minor stability PM-3 to PM-6
OD-3A	Implants in the A, C, and E positions rigidly joined by a bar if posterior ridge form is good	Ideal posterior ridge form Ideal denture Retention and moderate stability PM-2 to PM-6 (two-legged chair)
OD-4	Implants in A, B, D, and E positions rigidly joined by a bar cantilevered distally about 10 mm	Patient desires greater retention, major stability, and support PM-2 to PM-6 (three-legged chair)
OD-5	Implants in the A, B, C, D, and E positions rigidly joined by a bar cantilevered distally about 15 mm	Patient has high demands or desires Retention, stability, and support PM-0 (four-legged chair)

BOX 23-4 Patient Selection Criteria: OD-1

- Opposing a maxillary full denture
- Anatomical conditions are good to excellent (division A or B anterior and posterior bone.
- Posterior ridge form is an inverted U shape.
- Patient's needs and desires are minimal, primarily related to lack of prosthesis retention.
- Edentulous ridge, not square with a tapered dentate arch form
- Cost is the primary factor.
- Additional implants will be inserted within 3 years.







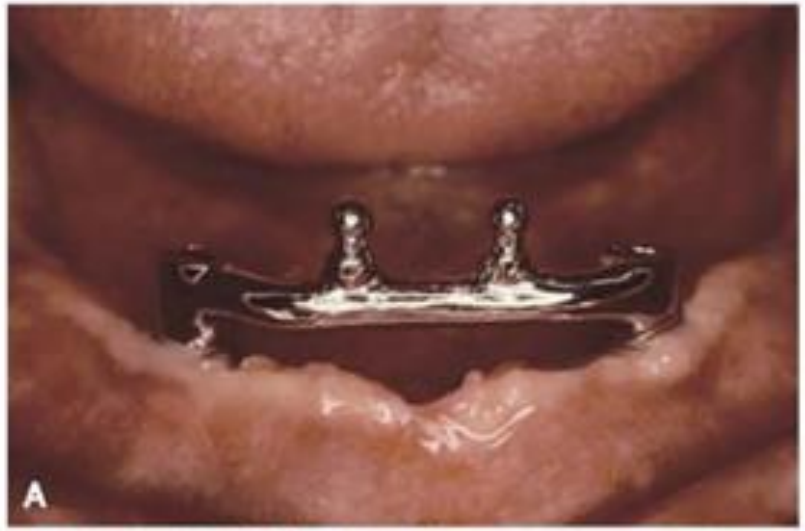
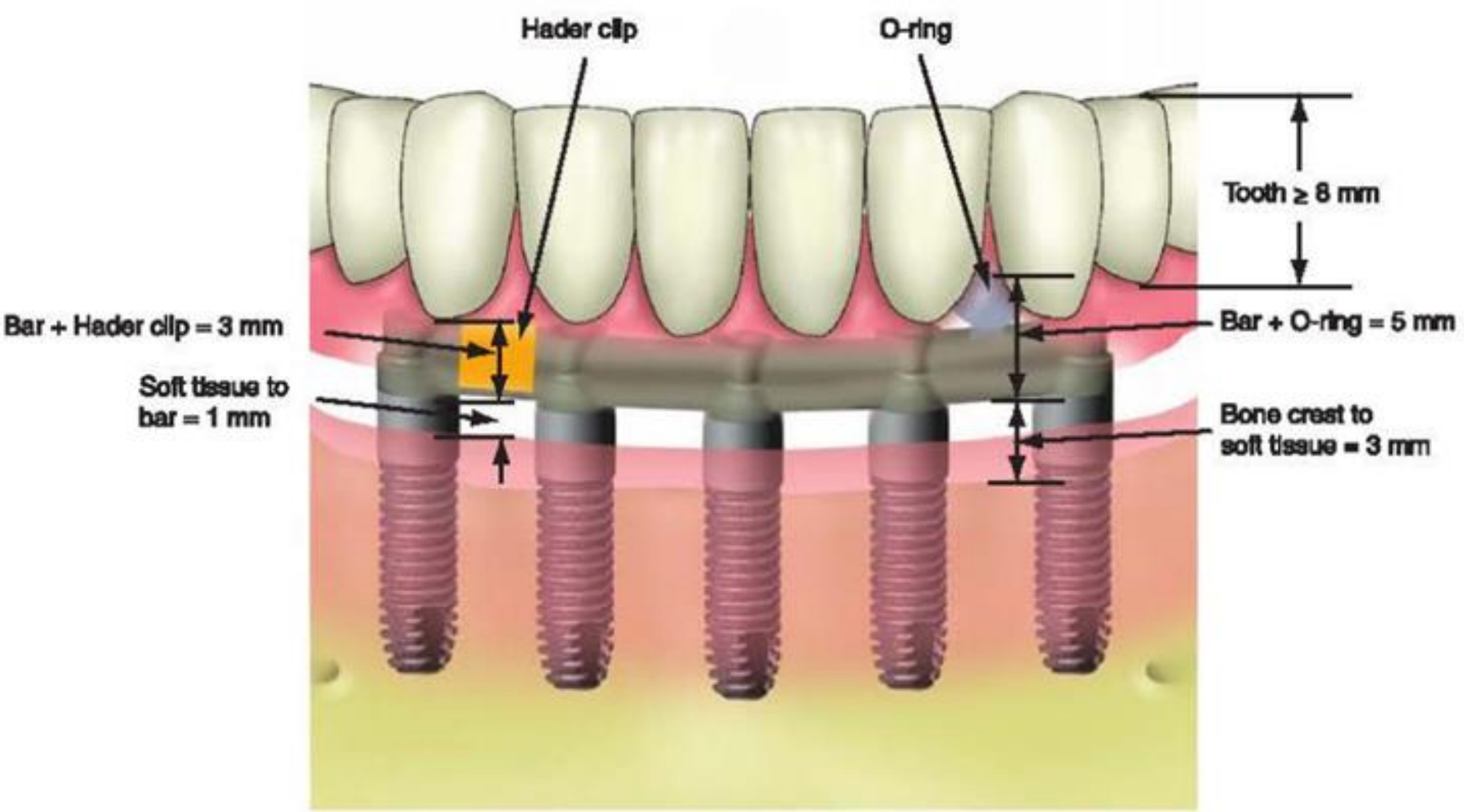


FIGURE 23-29. **A,** When O-rings are used for OD-2, the attachments are placed parallel to each other and at the some occlusal


Hader clip
O-ring
Tooth ≥ 8 mm
Bar + Hader clip = 3 mm
Bar + O-ring = 5 mm
Soft tissue to bar = 1 mm
Bone crest to soft tissue = 3 mm

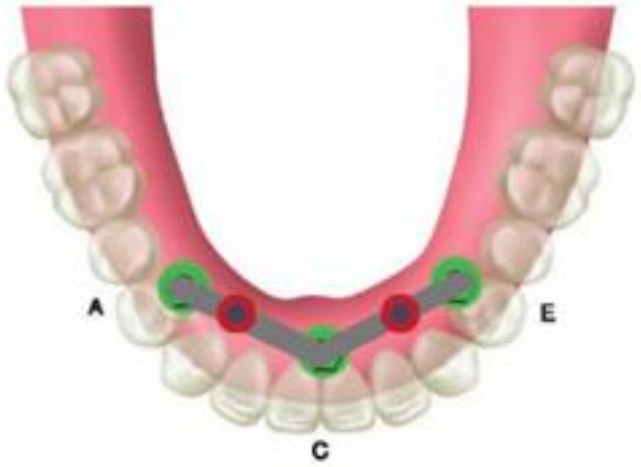
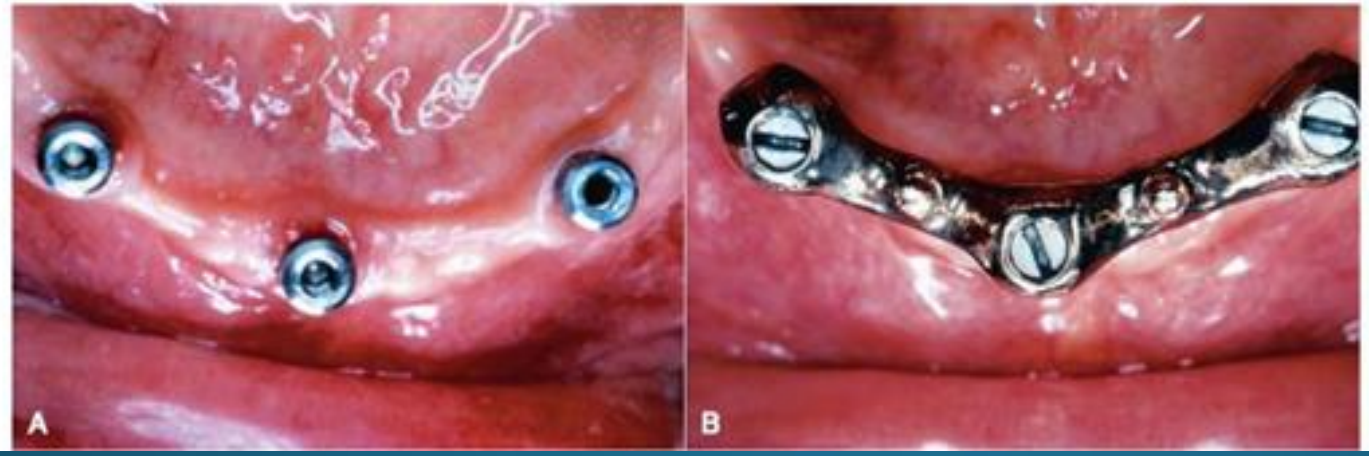
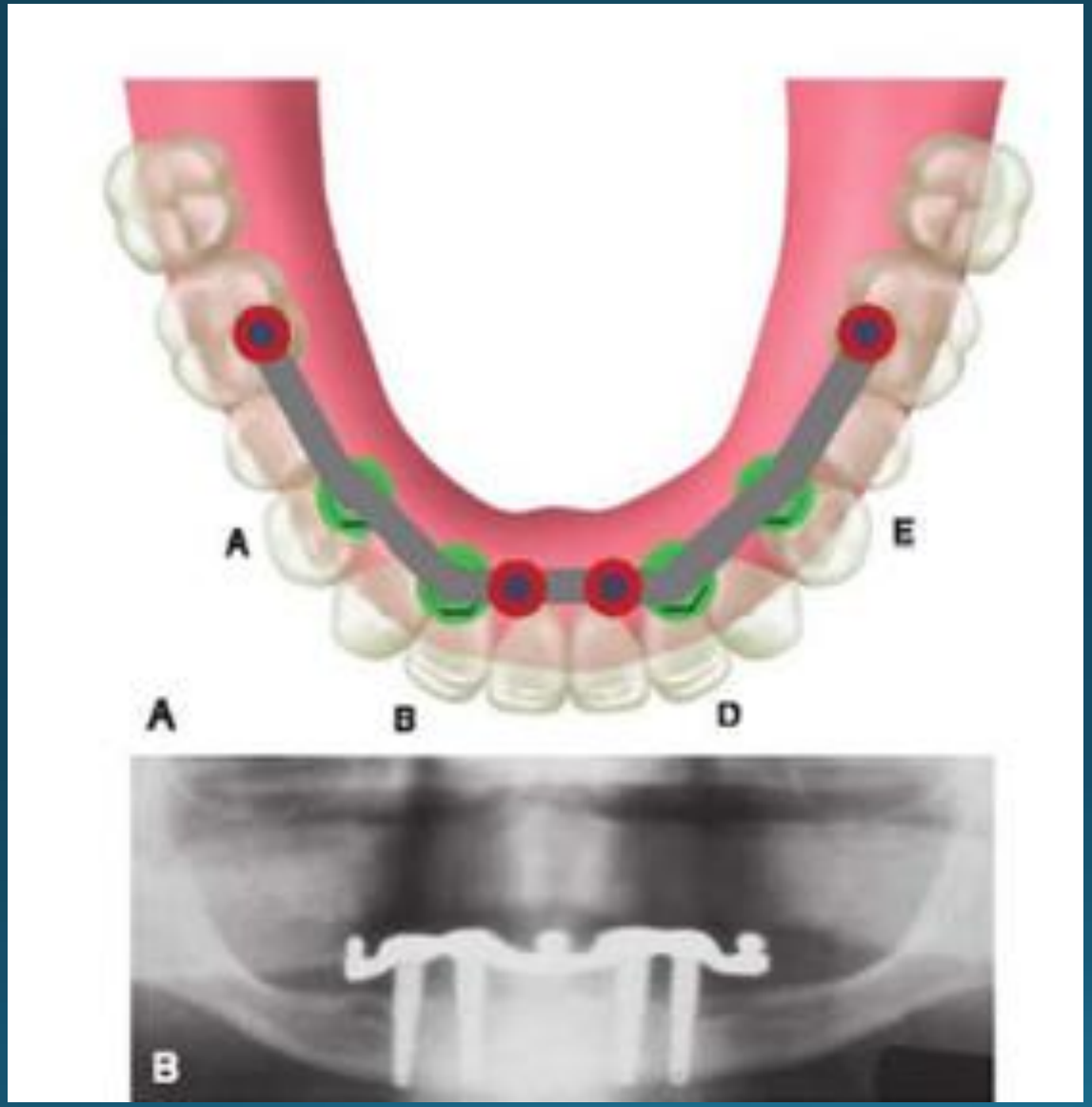


FIGURE 23-35. Overdenture option 3 corresponds to implants in the A, C, and E positions connected with a bar. The attachments should be positioned to allow movement of the distal section of the prosthesis.

BOX 23-8 Advantages of Splinted A, C, and E Implants

- Six times less bar flexure compared with A and E positions
- Less screw loosening
  - Less metal flexure
  - Three implant abutments
- Less stress to each implant compared with A and E implants
  - Greater surface area
  - More implants
  - Greater anteroposterior distance
- One-half moment force compared with A and E implants
- Less prosthesis movement
- One implant failure still provides adequate abutment support




A
E
A
B
D
B

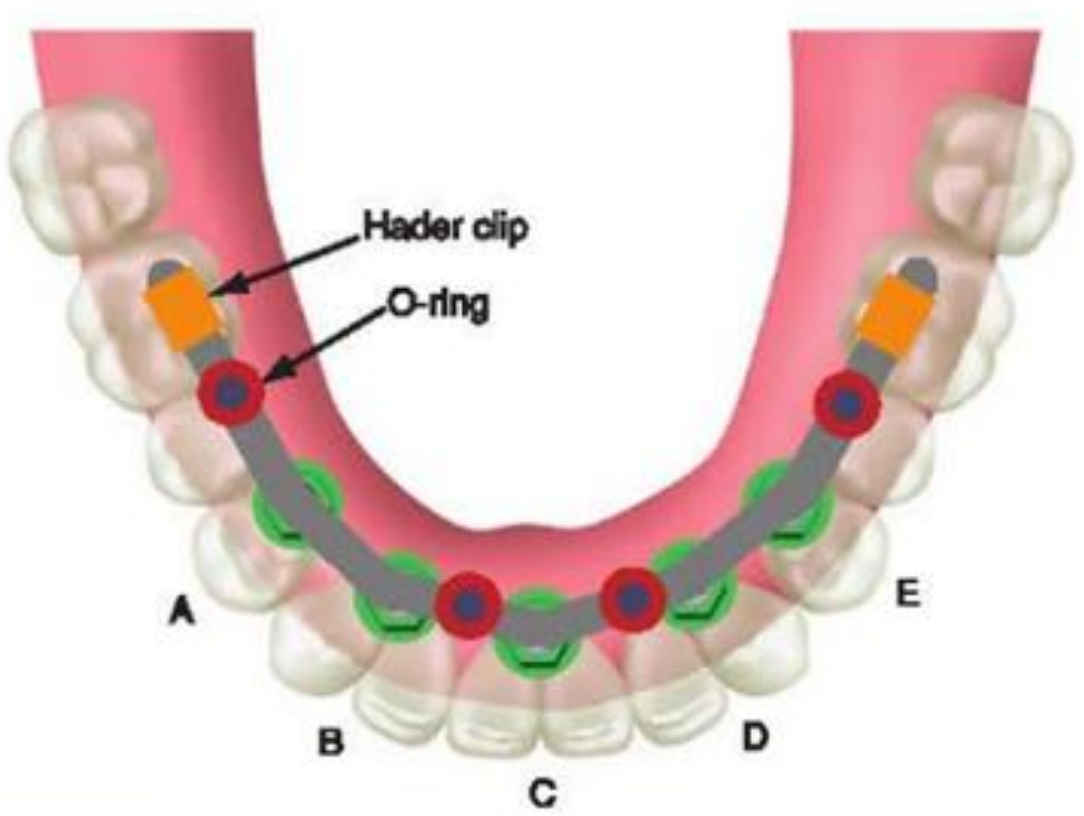
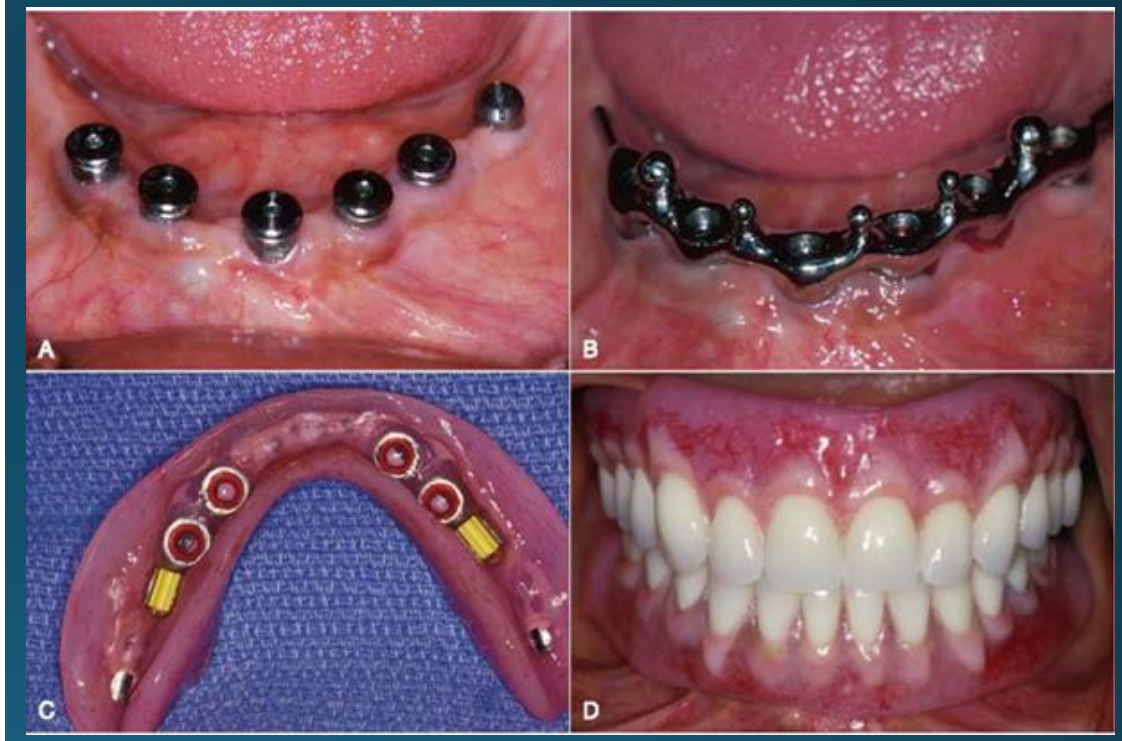


FIGURE 23-41. In the overdenture option 5, implants are placed in the A, B, C, D, and E positions. A bar splints the implants together and is distally cantilevered. The length of the cantilever depends on the anteroposterior distance and the force factors.



با آرزوی موفقیت روز افزین برای همه عزیزان