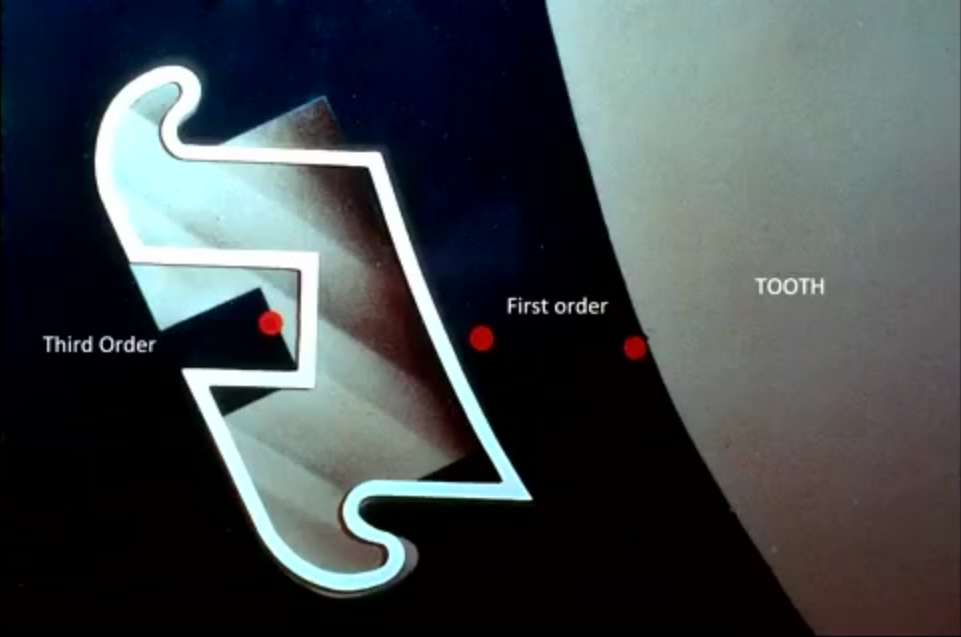




The diagram illustrates a cross-section of a tooth with a curved root canal. A white outline defines the root canal's path, which includes a hook-like bend at the apex. A red dot is placed within this bend, labeled 'Third Order'. Two other red dots are located on the straight portion of the root canal, labeled 'First order' and 'TOOTH' respectively. The background is dark blue, and the tooth structure is shown in shades of grey and white.

Third Order

First order

TOOTH



56

57

58

59

Click to add title

TOOTH

First order

Third Order

Slide 59 of 59 English (Australia) Accessibility: Investigate

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1

Unit B: Space Management in Preadolescent Children

1. Discuss the indications and contraindications for the selection of space maintaining appliances.
2. Discuss the indications and contraindications for the selection of various space regaining appliances.
3. Discuss the construction of different appliances.
4. Describe the timing and sequence of treatment.
5. Identify the possible causes of midline diastemas and spacing.
6. Discuss the relationship between spacing and protrusion.

2

Space Management in Preadolescent Children

1. Discuss the indications and contraindications for the selection of space maintaining appliances (space maintainer).

Head

- Band and loop
- Lingual arch
- Space holding arch
- Fixed arch

Removable

3

Click to add notes

DMD Level 3

Unit B: Space Management in Preadolescent Children

THE UNIVERSITY OF WESTERN AUSTRALIA

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Space Management in Preadolescent Children

1. Discuss the indications and contraindications for the selection of space maintaining appliances. [space analysis]

Fixed

Band and loop

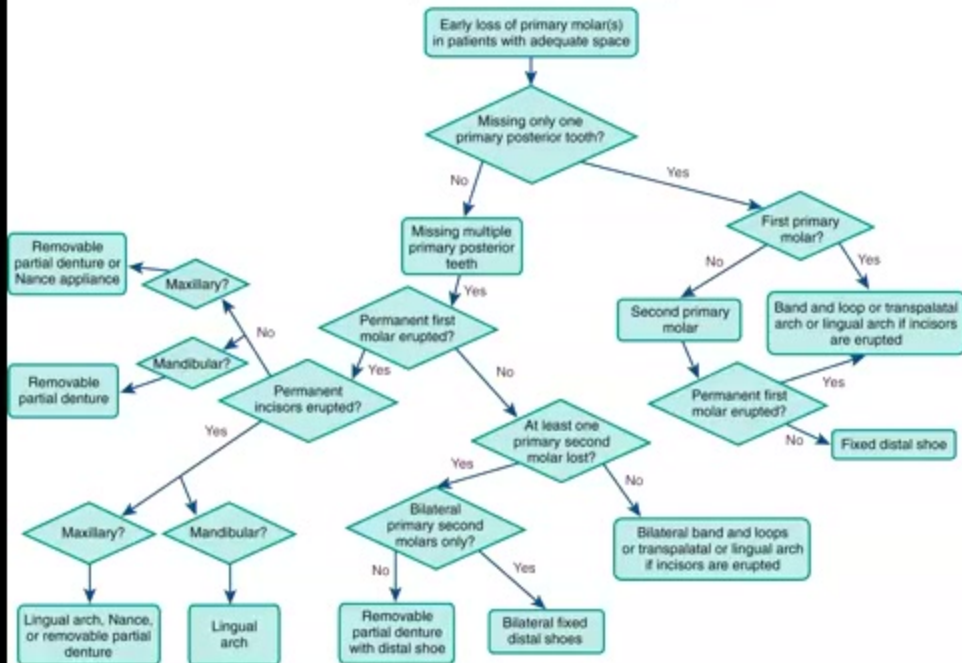
Lingual arch

Nance holding arch

Distal shoe

Removable

Posterior Space Maintenance—Pathways of Care



Space Management in Preadolescent Children

- 2 Discuss the indications and contraindications for the selection of various space regaining appliances.

Up to 3mm

Fixed

Spring appliances with braces

Active lingual arches

Fixed distalising appliances

Removable

URA with spring

URA with screw

Lip bumper



Space Management in Preadolescent Children

3 Discuss the construction of different appliances.

Removable-Impression → Insertion



Fixed

Separators Fit bands placed in impression wire bent and soldered



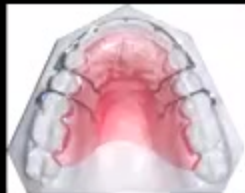
↓
Cemented in Mouth

Space Management in Preadolescent Children

4 Describe the timing and sequence of treatment.

URA

Fixed space maintainer



Space Management in Preadolescent Children

5. Identify the possible causes of midline diastemas and spacing.



Space Management in Preadolescent Children

6. Discuss the relationship between spacing and protrusion



Proclination/Protrusion: overestimate the space available

Potential Crowding & Space Maintenance

1. Describe diagnostic information necessary to make decisions concerning space maintenance or management.
 - If deciduous tooth lost early (When ?)
 - How much space loss? (>3mm ?)
 - Dental age and future eruption/growth changes (6 months)
 - Agenesis? (maintenance for prosthetic or closure ?)
 - Facial form- lip competence and fullness (regain space by exs)

Potential Crowding & Space Maintenance

- 2 Identify and discuss alternative space analysis procedures.

Measuring radiographs and teeth

Using tables

Correlation tables, measuring incisors and predicting 3-

4-5

Moyers

Tanaka and Johnston

Crossbites and Vertical Problems in Children

1. Identify skeletal contributions to anterior crossbites.
2. Identify dental contributions to anterior crossbites.
3. Identify the significance of functional shifts in anterior crossbites.
4. Evaluate space, tooth orientation and position, intermaxillary relationships, and eruption timing and sequence regarding the teeth involved in the anterior crossbites as etiologic and treatment factors.
5. State rationale for correcting anterior crossbites.
6. Recommend appropriate treatment for anterior crossbites including timing and appliance design.
7. Explain the relevance of facial form to posterior crossbite diagnosis.
8. List the etiologic factors of posterior crossbite.
9. Describe the clinical findings consistent with a bilateral maxillary constriction, a bilateral constriction accompanied by a mandibular shift, and a true unilateral maxillary constriction.
10. Describe the rationale for correcting posterior crossbites.
11. Describe the appropriate timing and appliance design for posterior crossbite treatment.



Crossbites and Vertical Problems in Children

1. Identify skeletal contributions to anterior crossbites.



Maxilla back

Mandible forward





Maxilla back
Mandible forward



Maxilla vertically
deficient
Mandible rotated up and
forward





Maxillary teeth
back

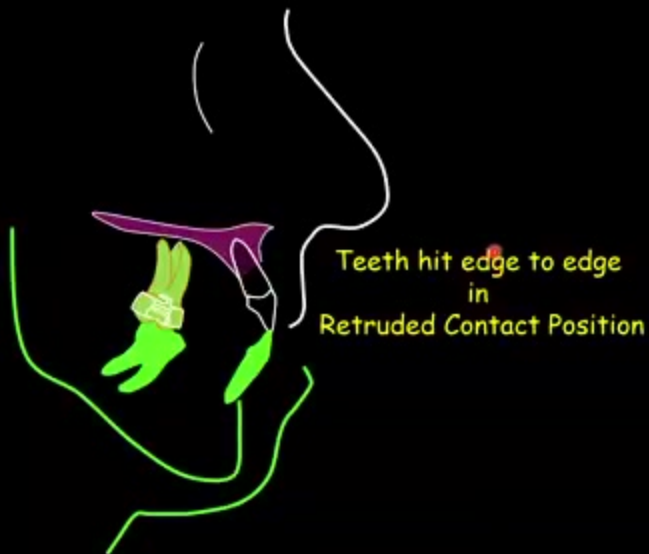


Mandibular
teeth forward



Maxillary teeth back
Mandibular teeth
forward

Pseudo Class III's are special



Dental Class III







Anterior Crossbite—Pathways of Care



Crossbites and Vertical Problems in Children

- 5 State rationale for correcting anterior crossbites.
- Prevent displacement and aberrant movement patterns/wear
 - Prevent perio problems
 - Function RCP/MI problems
 - Create space for alignment- expand anteriorly



Crossbites and Vertical Problems in Children

- 6 Recommend appropriate treatment for anterior crossbites including timing and appliance design.
- Single tooth- URA ASAP/inclined bite plate- Space? Strip, extract
 - Multiple teeth ? Class III ? Shift
 - URA or Facemask protraction
 - Part bands- comprehensive treatment



Springs seen from palatal side of acrylic



Adam's clasps, labial bow with finger spring.



Adult Class III



Compensation

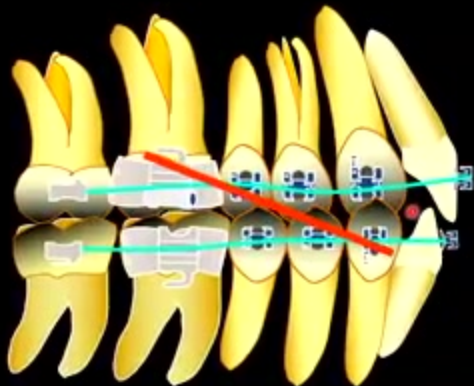
- Elastics
- Extractions
- TADS

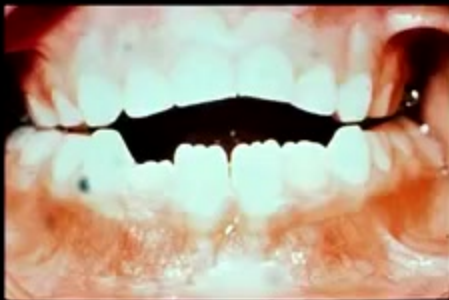


Surgery

- Orthognathics
- Distraction

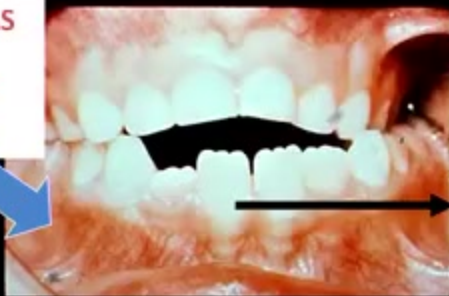
Elastics





End to end
occlusion
RCP

MANDIBLE HAS
MOVED
FORWARDS
ON RIGHT



Shift to right
ICP

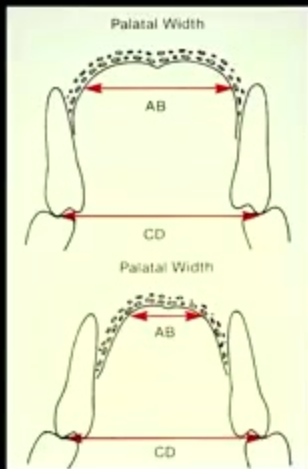
CROSSBITE



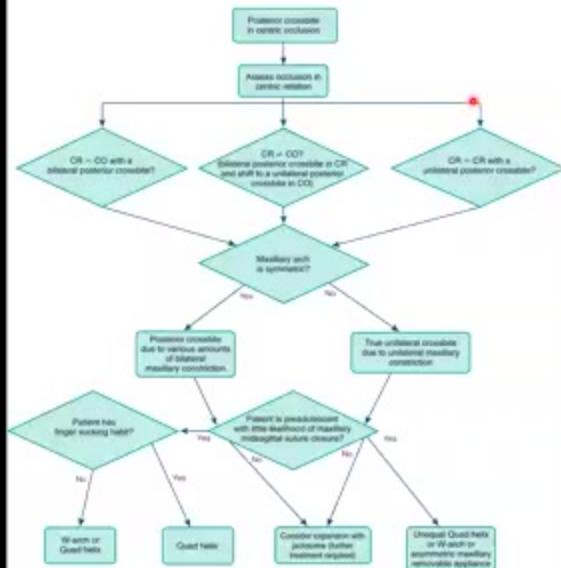
Differential diagnosis

- Skeletal crossbite
- Dental crossbite

TRANSVERSE RELATIONSHIPS



Posterior Crossbite—Pathways of Care



Crossbites and Vertical Problems in Children

10 Describe the rationale for correcting posterior crossbites.

- Abnormal soft tissue growth modification
- Abnormal wear
- Dental Compensation
- Insufficient space- narrow arches

Crossbites and Vertical Problems in Children

11. Describe the appropriate timing and appliance design for posterior crossbite treatment.

Suture morphology



Up to 10 years



Late teens

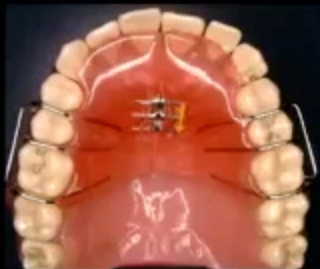
OPTIONS FOR APPLIANCE



RAPID MAXILLARY EXPANDER



QUAD HELIX and W-ARCH



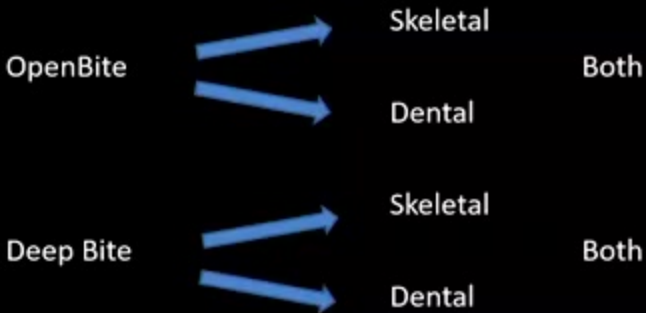
SLOW EXPANSION PLATE

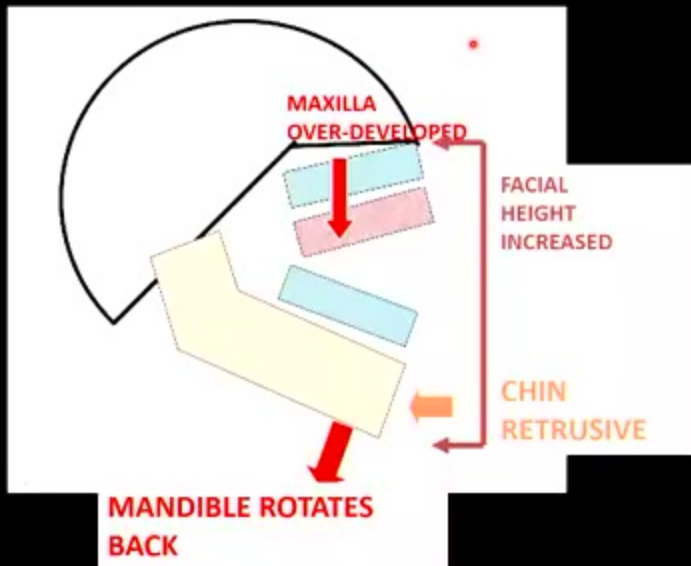
Vertical Problems / Habits

1. Define vertical problem and its classification, i.e., dental, skeletal, and possible etiologies.
2. Describe epidemiology relating to vertical problems and malocclusion.
3. Identify skeletal patterns predisposing patients to deep bite and open bite.
4. Explain oral-facial growth patterns and physiology as they relate to vertical problems.
5. Identify treatment and timing for vertical problems.

Vertical Problems / Habits

1. Define vertical problem and its classification, i.e., dental, skeletal, and possible etiologies.







2 yr old



THUMBSUCKING



6MONTHS AFTER CEASING



ANTI- HABIT
APPLIANCE





HEADGEAR



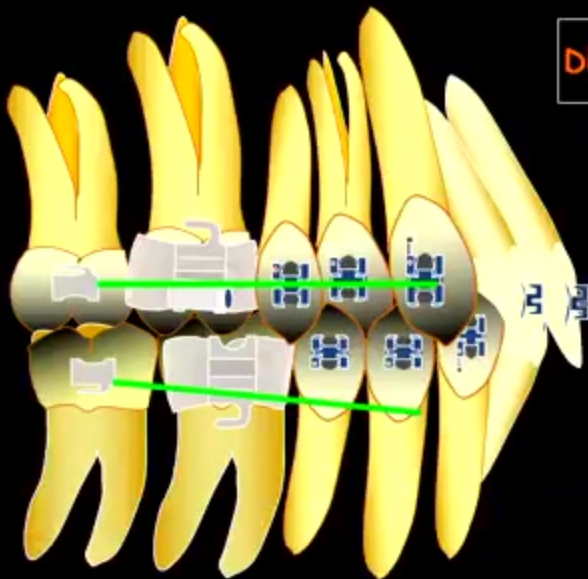
OLDER CHILD

HEADGEAR

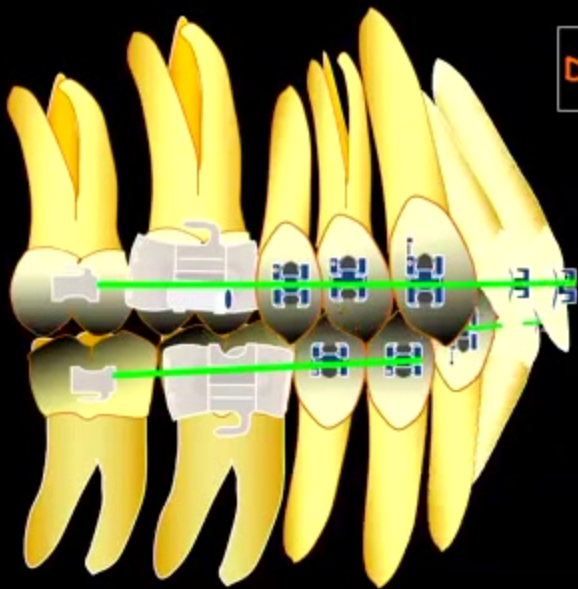


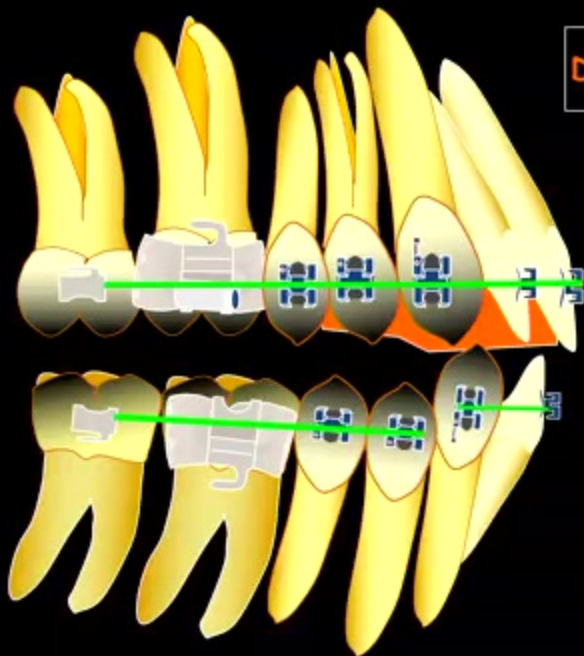
ADD HEADGEAR TO
INTRUDE
POSTERIOR TEETH

DEEP OVERBITE



DEEP OVERBITE

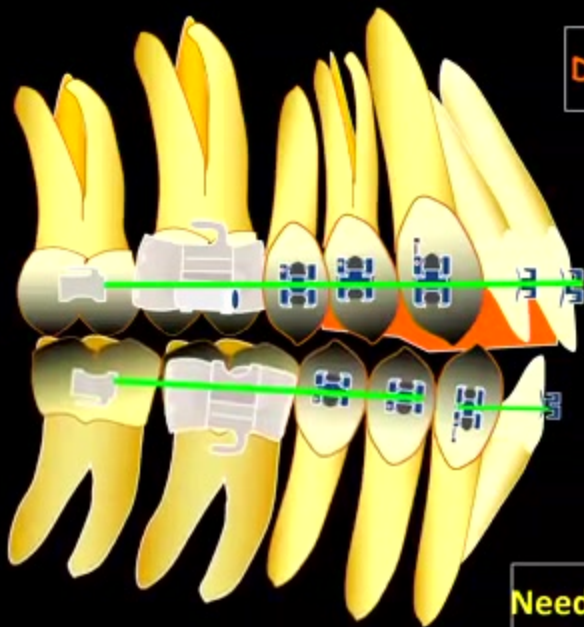




DEEP OVERBITE

POSTERIOR
EXTRUSION

Perhaps
BP



DEEP OVERBITE

POSTERIOR
EXTRUSION

Perhaps
BP

Needs condylar growth

Adjunctive Orthodontic Treatment Procedures

1. Describe indications for repositioning anterior teeth in adults.
2. Discuss use of diagnostic set-ups in planning adjunctive incisor positioning.
3. Describe indications and methods for extrusion of fractured teeth.
4. Describe periodontal implications of orthodontic treatment in adults.
5. Explain the indications for molar uprighting in adjunctive orthodontic treatment as part of general dental care.
6. Describe the technique used to upright a tipped molar.
7. Identify appropriate appliances for different clinical problems.
8. Explain types of appliances, in terms of active and reactive units.
9. Explain appliance placement, adjustments and timing.
10. Identify potential side effects or sequela of treatment.
11. Describe patient tolerance of the appliances.
12. Identify expected treatment time.
13. Describe retention procedures.

Adjunctive Orthodontic Treatment Procedures

- 2 Discuss use of diagnostic set-ups in planning adjunctive incisor positioning.



Adjunctive Orthodontic Treatment Procedures

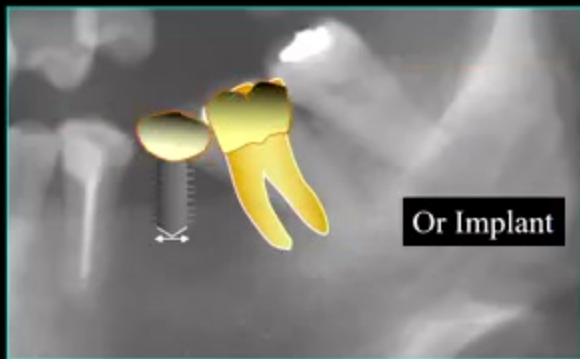
- 5 Explain the indications for molar uprighting in adjunctive orthodontic treatment as part of general dental care.

Tipped Molars

- Wise, R.J. and Kramer, G. M. (1983). Predetermination of osseous changes associated with uprighting tipped molars by probing. *International Journal of Periodontics and Restorative Dentistry*, 3, 68-8 1.



Tipped Molars



Adjunctive Orthodontic Treatment Procedures

- 6 Describe the technique used to upright a tipped molar.

Helical uprighting spring “hooked” over segmental arch wire

