Early Treatment
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2006

Normal occlusion: Deciduous dentition
- OB: Moderate to Shallow
- OJ: 3mm
- Molar occlusion: Flush terminal plane
- Buccal OJ: Positive all around

Normal occlusion: Early Mixed dentition
- Spacing:
  - Generalized spacing
  - Primate Spacing

Normal Occlusion: Deciduous dentition
- Age: 2½ to 5½ years old
Normal Occlusion: Early Mixed dentition

- No Primate spaces
- Diastema (ugly duckling stage)
- Mild crowding is accepted

Abnormal Occlusion

Lee way space:
- Maxilla: 1.5 mm each side
- Mandible: 2.5 mm each side

Abnormal Occlusion
Abnormal Occlusion

Early Treatment: Benefits
- Guide growth
- Reduce chance of extraction or surgery
- Reduce phase II treatment time
- Esthetics

When do we treat early?
- Functional problems
- Higher chance for Trauma
- Space Management
- Esthetics
**Functional Problems**
- Crossbites
  - Functional shift
    - Anterior
    - Lateral
  - Constriction of maxilla
    - Narrow maxilla
    - Narrow smile

- Class III
  - Overgrowth of mandible
  - Deficient growth of maxilla

- Openbite
  - Tongue thrusting habit
  - Thumb sucking habit
  - Prolonged use of Pacifier
  - Foreign object biting habit

**Increased susceptibility to Trauma**
- Severe Class II
  - Increased OJ
  - Trauma to maxillary central incisors

**Functional Problems**
- Mouth breather
  - Adenoid face
  - Long face syndrome
    - Tongue rests on mandible instead of touching the palate
      - Maxillary constriction
      - Posterior crossbite
    - Clockwise rotation of mandible
      - Anterior Openbite
    - Dry mouth
      - Increased caries rate
      - Increased Gingival inflammation

**Space Management**
- Space Conservation: Space loss
  - Interproximal caries
  - Early loss of deciduous teeth
  - Early extractions of deciduous teeth

- Severe Crowding: Serial Extraction
  - Guided Eruption
  - Extraction of deciduous teeth
  - Extraction of permanent teeth

- Increased OJ
  - Trauma to maxillary central incisors

- Constriction of maxilla
  - Narrow maxilla
  - Narrow smile

- Overgrowth of mandible
- Deficient growth of maxilla

- Tongue rests on mandible instead of touching the palate
  - Maxillary constriction
  - Posterior crossbite
- Clockwise rotation of mandible
  - Anterior Openbite
- Dry mouth
  - Increased caries rate
  - Increased Gingival inflammation
Esthetics
- Improve smile
- Self-esteem issues
- Some diastema is normal stage of dental maturation

Posterior Crossbite treatment: Palatal Expander
- Quad Helix appliance
- Porter Arch appliance

Posterior Crossbite: Lateral functional shift

Rapid Palatal Expander (RPE)

Posterior Crossbite treatment: Palatal Expander

Elimination of midline shift
Posterior crossbite

Treatment: RPE & 2x4

Anterior & Posterior crossbite

Treatment: RPE & 2x4

Anterior Crossbite:
Anterior functional shift

CR CO

Anterior & Posterior crossbite

Treatment: RPE & Reverse pull
Headgear
**Anterior Crossbite Treatment:**

Removable Finger Spring Appliance with posterior bite plate

Treatment: Bonded RPE with Reverse Pull Headgear 2 mo. progress

**Class III**

Openbite: Thumb sucking habit
Openbite: Treatment

- Tongue Guard
- Tongue rake
- Blue grass

Removable Tongue Crib

Increased risk for trauma

Openbite: Thumb sucking habit
Blue grass appliance

- 2/16/02
- 5/19/02

Increased risk for trauma
**Treatment:**
*Headgear &/or Bite plate*

**Serial Extraction**

**Space Management**
- Serial Extraction

**Serial Extraction**
- Initial stage:
  - 4 incisors erupting per arch with lack of space

- Extraction of deciduous canines:
  - Allow permanent incisors to align

**Serial Extraction**
- Extraction of first deciduous molars:
  - Allow first premolars to erupt ahead of canines

- Extraction of first premolars
  - Allow canines to erupt
  - Extract second deciduous molars to allow eruption of second premolars
Serial Extraction

- 13 year old girl without serial extraction
- 13 year old girl with serial extraction

Space conservation
- Interproximal caries
  - Restoration
- Early loss of deciduous teeth
  - Space maintainer
  - Space regainer
- Extractions
  - Space maintainer
  - Space regainer
- Missing teeth

Removable Space maintainer
Pedo partial

Fixed unilateral appliance
- Distal shoe
- Band & Loop
- Crown & Loop

Removable space maintainer

Fixed Bilateral appliance
- Nance appliance
- Transpalatal Arch (TPA)
Lower Lingual Holding Arch

Esthetics: Self-esteem

Summary

- Early Orthodontic treatment:
  - Guide growth to more favorable direction
  - Reduce the chance of extraction or surgery
  - Reduce phase II treatment time length
  - Esthetics