



Phase I Orthodontic Treatment

- American Association of Orthodontics recommends children be seen by an orthodontist no later than age 7
- Dentistry, like medicine, has shifted over the years from reactionary treatment modality to preventative treatment
- Treatment in Primary only dentition should be mostly avoided due to limitations in mechanics and patient cooperation
- Phase I treatment should mainly be completed when patient is in mixed dentition

Reasons to complete Phase I treatment:

1. Make space for crowded teeth
 - a. In severely crowded patients, creating space in mixed dentition can avoid impacted permanent teeth (especially maxillary canines), the need for future exposures, or even extraction of permanent teeth
 - b. Space maintainers are recommended when
 - i. Missing primary molars with more than 6 months before the permanent tooth erupts
 - ii. Missing one or both primary canines AND lingual movement of the incisors will result in an unacceptable loss of arch length
2. Prevent damage to gingiva and teeth
 - a. Traumatic occlusion in the anterior can result in incisal edge damage or gingival recession—both occurring in the esthetic zone
 - b. This should be treated to prevent long term restorative problems
3. Correct jaw growth and facial balance
 - a. Can benefit from treatment but not necessarily at this time
 - i. Class II
 1. Early treatment does not reduce need for extractions/jaw surgery
 2. Treatment postponed until the adolescent growth spurt
 - ii. Class III
 1. Start treatment with maxillary protraction
 2. 50% will recur post-treatment and 25% will need surgery after growth is complete
 3. You can't stop mandibular growth
 - iii. Transverse Discrepancy (Crossbite)

1. Important to address to prevent patient growing into a facial asymmetry
 4. Guide eruption of permanent teeth
 - a. Over-retained primary teeth
 - i. Extract:
 1. If delaying or displacing the permanent tooth
 2. When permanent tooth has more than $\frac{3}{4}$ root developed but the primary tooth still has significant root remaining
 3. Extracting the primary tooth too soon will slow the eruption of the permanent tooth
 - ii. Ectopic teeth
 1. Maxillary first molar is most common
 - a. Usually self corrects
 - b. If it doesn't:
 - i. Extract primary 2nd molar, allow permanent molar to erupt and insert space maintainer
 - OR-
 - ii. Orthodontically reposition
 2. Maxillary canines
 - a. Easier to prevent than treat
 - b. Frequently associated with crowding (early expansion can aid in preventing)
 - c. If canines are partially overlapping the lateral incisor roots, then extract the primary canines
 - d. More overlap of lateral incisor roots=reduced prognosis for self correction
 - e. Before age 11 will normalize the canine position approximately 90% of time if crown is distal to the midline of the lateral incisor root
 - f. If it is beyond the midline of the lateral root, success rate drops to about 60%
 - g. In successful cases improvement of canine position detected in 6 months
 - h. If no improvement in 12 months, should not expect spontaneous change
5. Identify missing or extra teeth
 - a. Extra teeth or odontomas can result in similar result to over-retained primary teeth

- i. Should identify and extract the tooth with poorer long-term prognosis (shorter root, smaller crown, etc.)
 - b. Missing teeth
 - i. Main goal maintain bone; More bone means more future restorative options
- 6. Correct harmful habits
 - a. Incisor Protrusion/Retrusion
 - i. If thumb sucking is etiology and is stopped, the incisor protrusion will normally self-correct
 - b. Dental anterior open bite due to digit habit
 - i. Under-eruption of anterior tooth caused by an object or habit preventing normal eruption
 - ii. Behavior modification works well
 - iii. Best treated before permanent teeth erupt
 - iv. If need habit appliance need to maintain 3-6 months after cessation
 - v. Once habit stops, incisors erupt normally although the tongue may thrust forward to create a seal
- 7. Improve confidence with a beautiful smile
 - a. Crowding (2-4 mm), no tooth loss: Generally does not require treatment
 - b. Spaced or flared maxillary incisors: Can treat to reduce trauma chances or for esthetic benefits but is not required
 - c. Social issues can play major role in childhood development and sometimes is reason enough for early treatment

Phase I is NOT always needed. If it is there should be a clear advantage in esthetic, developmental, functional or trauma preventions

7 FOR 7

The American Association of Orthodontics recommends **7** reasons for your child to be seen no later than age **7**.

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2. Prevent damage to gums and teeth
3. Correct jaw growth & facial balance
4. Guide eruption of permanent teeth
5. Identify missing or extra teeth
6. Correct harmful habits
7. Improve confidence with a
BEAUTIFUL smile!



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