



A Review Of The Do's And Don'ts In Pre-Adolescent Orthodontic Treatment

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Abstract

The decision to pursue orthodontic treatment for a pre-adolescent child is a complex one, navigating a landscape of conflicting clinical opinions and parental concerns. The American Association of Orthodontists (AAO) famously recommends a child's first orthodontic evaluation by age seven. This recommendation, however, is for *screening*, not a mandate for *treatment*. This review synthesizes current evidence from systematic reviews, meta-analyses, and clinical guidelines to delineate the clear indications for early intervention (the “Do’s”) from the conditions where a “wait-and-see” approach is evidence-based (the “Don’ts”). Early treatment, known as Phase 1 or interceptive orthodontics, is not a comprehensive solution but a targeted intervention. Its value is proven for specific skeletal and functional problems, such as crossbites and underbites, where guiding growth is paramount. Conversely, for common issues like moderate overbites (Class II malocclusion) and general crowding, high-level evidence suggests that a two-phase approach offers no significant long-term dental or skeletal advantages over a single, comprehensive phase in adolescence, while significantly increasing total treatment time and burden. This review aims to provide a clear, evidence-based framework for clinicians and parents to distinguish between necessary intervention and prudent observation.

Keywords – Interceptive orthodontics, Pre-Adolescent Treatment, Phase 1 Orthodontics, Early vs.Late Treatment, Skeletal and Dental Malocclusion

1. Introduction: The Phase 1 Philosophy

Orthodontic treatment in the pre-adolescent, typically between the ages of 7 and 10, is known as interceptive or Phase 1 treatment. This period, characterized by the “mixed dentition” (a mix of primary and permanent teeth), is a critical window of skeletal growth. The entire philosophy of Phase 1 treatment rests on one central goal: to intercept a developing problem that, if left untreated, would become more severe, damage the dentition, or require a more complex solution later, such as jaw surgery or permanent tooth extractions (Schneider-Moser et al., 2022).

The American Association of Orthodontists (AAO) recommendation for a screening by age seven is based on this principle. By this age, the first permanent molars and incisors have typically erupted, allowing a specialist to assess the skeletal relationship of the jaws and identify functional problems. However, a screening does not equal treatment. For most children, the correct course of action is “active surveillance”—monitoring growth

and development until the optimal time for a single, comprehensive phase of treatment in adolescence. The decision to intervene early must be justified by clear, evidence-based benefits.

2. The “Do’s”: When Early Intervention Is Necessary

Early treatment is not intended to align every tooth perfectly; that is the goal of Phase 2 (comprehensive treatment). Phase 1 is a targeted “mini-treatment” focused on resolving specific skeletal and functional issues. The evidence strongly supports intervention for the following conditions.

DO Intervene for Skeletal Crossbites and Underbites The most compelling case for early treatment involves discrepancies in jaw width or position. A posterior crossbite, where the upper jaw is too narrow and the upper teeth fit inside the lower teeth, will not self-correct. If left untreated, it can force the lower jaw to shift to one side to find a comfortable bite, potentially leading to asymmetric facial growth (Harrison & Ashby, 2001). Early intervention with a palatal expander can effectively widen the upper jaw’s bone structure while the mid-palatal suture is still malleable, a correction that is significantly more difficult and invasive in older adolescents or adults.

Similarly, a developing anterior crossbite (underbite), particularly one with a skeletal component (a Class III malocclusion), benefits greatly from early treatment. Interceptive appliances like a protraction facemask can help guide the upper jaw’s growth forward and restrain the lower jaw, which can reduce the severity of the skeletal problem and, in some cases, eliminate the need for future orthognathic (jaw) surgery (Schneider-Moser et al., 2022).

DO Reduce a Severe Overjet to Prevent Trauma While treatment for the underlying jaw problem of an overbite (Class II malocclusion) is debatable, treatment for the symptom—severely protruding front teeth (overjet)—is often justified. Children with an excessive overjet are at a significantly higher risk of dental trauma, such as chipping or breaking their front teeth, from falls or sports. A landmark Cochrane systematic review found that early orthodontic treatment for children with prominent upper front teeth reduces the incidence of incisal trauma (Thiruvengkatachari et al., 2013). This is the single, most robustly supported benefit of early Class II treatment.

DO Eliminate Harmful Oral Habits Prolonged habits, such as thumb or finger sucking and non-nutritive sucking that persist past the eruption of the permanent incisors, can actively deform the dental arches. These habits can lead to an anterior open bite (where the front teeth do not meet), a narrow upper arch, and a posterior crossbite. Early treatment with a simple habit-breaking appliance can intercept these issues, often allowing the bite to correct itself spontaneously as the child grows.

DO Manage Space to Prevent Impaction Early intervention is often necessary for severe space-management issues. If a primary (baby) tooth is lost prematurely due to decay or trauma, the adjacent permanent molar can drift forward, blocking the space needed for the permanent premolar to erupt. In this case, a simple “space maintainer” is a critical interceptive do. In cases of severe crowding, where there is a clear lack of space for the permanent canines to erupt, early expansion or guided extraction (serial extraction) may be indicated to prevent those teeth from becoming impacted (stuck in the jawbone).

3. The “Don’ts”: When to Wait for Adolescent Treatment

The “Don’ts” of early orthodontics are not contraindications but rather situations where high-quality evidence shows that waiting for a single phase of treatment is more efficient and provides an equivalent, or superior, final result.

DON'T Routinely Treat Mild-to-Moderate Class II Malocclusion (Overbite) This is the most well-researched and controversial topic in treatment timing. While parents may be concerned about the appearance of an overbite, numerous high-level studies, including randomized clinical trials from the University of North Carolina and a definitive Cochrane review, have reached the same conclusion: for the vast majority of Class II patients, a two-phase treatment (Phase 1 + Phase 2) produces no significant long-term skeletal or dental advantages compared to a single phase of comprehensive treatment timed with the adolescent growth spurt (Tulloch et al., 2004; Thiruvengkatachari et al., 2013). While Phase 1 does achieve a temporary “head start,” the adolescent single-phase group “catches up” by the end of treatment. The “don’t” here is significant because a two-phase approach results in a significantly longer total time in appliances and a greater financial and compliance burden on the family, all for a nearly identical outcome. The only proven exception, as noted, is the reduction of trauma risk for severely protruding teeth.

DON'T Treat Mild-to-Moderate Crowding with a Two-Phase Approach Another common reason cited for Phase 1 treatment is to “create space” with early expansion to “prevent future extractions.” While early expansion is effective at widening the arch, its ability to solve crowding in the long term is debatable. Systematic reviews comparing early treatment (like serial extraction) to later adolescent treatment for severe crowding found no significant difference in the final correction of crowding (Lopes Filho et al., 2015). For mild-to-moderate crowding, most orthodontists now favor a “wait-and-see” approach. It is often more efficient to monitor the eruption of the permanent teeth and utilize the “leeway space” (the extra space primary molars hold) to resolve crowding naturally, or to address it in a single, comprehensive phase later.

DON'T Treat for Psychosocial Benefits Alone This is a nuanced “don’t.” Malocclusion, particularly visible issues like overjet or severe crowding, does negatively impact a child’s oral health-related quality of life (OHRQoL), especially in the emotional and social well-being domains (Krishnan et al., 2020). Furthermore, orthodontic treatment has been shown to provide a moderate improvement in these OHRQoL scores. However, the evidence that orthodontic treatment improves global self-esteem is considered weak and contradictory. Critically, there is no strong evidence that an early (Phase 1) intervention provides a greater or more sustained psychosocial benefit than a single phase of treatment in adolescence. Therefore, while psychosocial concerns are valid, they must be weighed against the significant burden of early treatment. A severe overjet causing active teasing and a high trauma risk is a “do.” A mild overbite with minor crowding is likely a “don’t,” as the same (or better) psychosocial benefits will be achieved with a more efficient single treatment phase a few years later.

4. Summary: Phase 1 vs. Comprehensive Treatment

The following table summarizes the key differences between the “Do Early” (Phase 1) and “Wait” (Comprehensive) approaches.

Feature	Phase 1: Interceptive (Pre-Adolescent)	Comprehensive: Phase 2 or Single-Phase (Adolescent)
Typical Age	7 - 10 years	11 - 15+ years
Dentition	Mixed (baby and permanent teeth present)	Permanent (all or most permanent teeth present)
Primary Goal	"The Do's" - Intercept severe problems. - Guide jaw and facial growth. - Prevent dental/skeletal issues from worsening.	"The Don'ts" (when done early) - Align all permanent teeth. - Achieve an ideal,

Feature	Phase 1: Interceptive (Pre-Adolescent)	Comprehensive: Phase 2 or Single-Phase (Adolescent)
		functional bite (occlusion). - Finalize aesthetics.
Clear Indications (Evidence to "Do")	<ul style="list-style-type: none"> • Skeletal crossbites (posterior or anterior). • Developing skeletal underbite (Class III). • Severe overjet with high trauma risk. • Harmful habits (e.g., thumb sucking). • Severe crowding threatening tooth impaction. • Premature loss of baby teeth. 	<ul style="list-style-type: none"> • Mild-to-moderate crowding. • Mild-to-moderate overbite (Class II). • Spacing issues. • Final detailing of the bite.
Typical Appliances	<ul style="list-style-type: none"> • Palatal Expanders (RPE) • Protraction Facemasks • Habit-breaking appliances (e.g., tongue crib) • Partial braces (e.g., "2x4 appliance") • Space Maintainers 	<ul style="list-style-type: none"> • Full braces (metal or ceramic) • Clear aligners (e.g., Invisalign) • Elastics and other finishing appliances

5. Conclusion

The decision to begin orthodontic treatment in a pre-adolescent must be a data-driven, individualized assessment of harms versus benefits. The age-seven evaluation is not a starting gun for braces; it is a critical diagnostic checkpoint. The evidence clearly supports the “do” of interceptive treatment for genuine skeletal and functional problems like crossbites, underbites, severe overjet, and harmful habits. These are issues where the timing of growth is essential. Conversely, the evidence supports the “don’t” of routinely treating common dental problems like mild-to-moderate overbites and crowding in two phases. For these conditions, a single, comprehensive treatment phase during the adolescent growth spurt is proven to be more efficient and yields an equivalent, high-quality result.

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