



Nineteen Difficult Issues for Aligner Correction

A Board Certified Orthodontist must know which malocclusions cannot be adequately treated with aligners to provide effective and efficient patient care. Here are 19 malocclusions that typically require other orthodontic interventions in addition to or instead of aligners: (Consider Hybrid Stage I and Stage II followed with Aligners Stage III)

- 1. Severe Overjet (>6mm):** Aligners alone may not correct severe Overjet (>6mm), which frequently results from skeletal discrepancies & may even require surgical intervention.
- 2. Severe Deep Bite:** Aligners face challenges performing the needed upper incisor intrusion or posterior teeth extrusion to correct significant vertical bite overlap.
- 3. Open Bite:** Open bite conditions resulting from skeletal problems or thumb-sucking habits typically demand additional treatment methods such as habit-breaking appliances.
- 4. Large Diastemas:** Major gaps between teeth can require more complex orthodontic interventions beyond aligners when space distribution needs substantial modification.
- 5. Severely Rotated Teeth (>20 degrees):** Patients with teeth rotated more than 20 degrees may find that aligners lack the strength to correct the tooth position.
- 6. Transposition:** Aligners alone typically struggle to realign teeth that have exchanged positions because proper alignment requires complex movements.
- 7. Impacted Teeth:** Treatment for impacted teeth demands surgical or fixed appliance intervention because aligners alone cannot expose or align such teeth.
- 8. Intrusion of Cuspids:** Aligners may not represent the most effective treatment option for deep canine intrusion because they require substantial force, increasing root resorption risk.
- 9. Excessive Crowding (>7mm):** Severe tooth crowding exceeding 7mm typically needs tooth extraction followed by fixed appliances for adequate space distribution and tooth alignment.
- 10. Skeletal Crossbites:** Aligners show limited effectiveness in addressing skeletal crossbites, which usually require surgical solutions or specialized tools, such as palatal expanders, for proper correction.
- 11. Severe Class II or Class III malocclusions:** Severe Class II or Class III malocclusions usually require orthognathic surgery or specialized functional appliances because substantial skeletal discrepancies make aligners insufficient.
- 12. Asymmetric Malocclusions:** Orthodontic treatment with aligners faces challenges in asymmetrical malocclusions due to their inability to manage necessary differential tooth movements.

13. Mixed Dentition: Aligners are not typically suitable for mixed dentition situations because of the evolving dental structure resulting from primary teeth loss and the eruption of permanent teeth. (Poor Long-Term predictors of growth – especially boys.)

14. TMD Issues: Temporomandibular disorder cases require extra therapeutic measures alongside aligners because the devices alone cannot manage occlusal and joint issues.

15. Severely Short Clinical Crowns: Due to poor retention, aligners often fail to provide proper movement and fit for teeth with severely short clinical crowns.

16. Severely Tipped Molars: Patients with severely tipped molars need forces that surpass aligner capabilities to correct the angles.

17. Proclined Upper Front Teeth: The substantial forward positioning of upper incisors demands stronger retraction forces, which may require fixed appliances.

18. Ectopic Eruptions: Aligners may fail to properly guide ectopically erupting teeth in the correct positions within the dental arch.



19. Interdisciplinary Cases Involving Restorations: Restorative orthodontics cases involving interdisciplinary treatment demand the combined precision and adaptability of fixed appliances to achieve the best results.

These situations may involve using aligners alongside other orthodontic devices to create a comprehensive treatment plan that addresses particular treatment limitations. Healthcare providers must assess each case separately, considering the patient's requirements and the targeted clinical results.

Hybrid treatment consists of Stage I Lab Appliances, such as an expander, and Stage II, a short stage in braces to minimize rotations, crowding, and habits. In contrast, Stage III consists of finishing the patient in aligners.

Estimated Aligner Treatment Efficiency by Malocclusion (Guidelines)

Aligners demonstrate effectiveness for numerous cases, yet their performance fluctuates substantially depending on the malocclusion severity. Below is an outline for mild, moderate, and severe cases:

1. Mild Malocclusions (0-24 Aligners – Mx/Md Aligners)

Examples: The treatment of minor crowding issues, mild spacing problems, slight tooth rotations, and minor corrections of overjet or overbite fall into this category.

Efficiency: Highly Efficient

Treatment time: Depending on their level of compliance and case complexity, patients with mild malocclusions require 6–12 months of treatment.

Predictability: Completing **85–95%** of planned tooth movements occurs without extensive adjustments.

Reasons for High Efficiency:

- Minimal force is required for small movements.
- Achieving precise adjustments such as tipping movements and minor rotational corrections Remains straightforward.



2. Moderate Malocclusions (25-39 Aligners – Mx/Md Combo)

Examples: Treatment examples include moderate dental crowding, overbite or overjet issues, tooth rotations up to 30°, and mild Class II/Class III orthodontic corrections.

Efficiency: Moderate Efficiency

Treatment time: The expected treatment period ranges from 12 to 18 months, including time for potential refinements.

Predictability: Planned orthodontic movements reach **70–85% success** without additional adjustments.

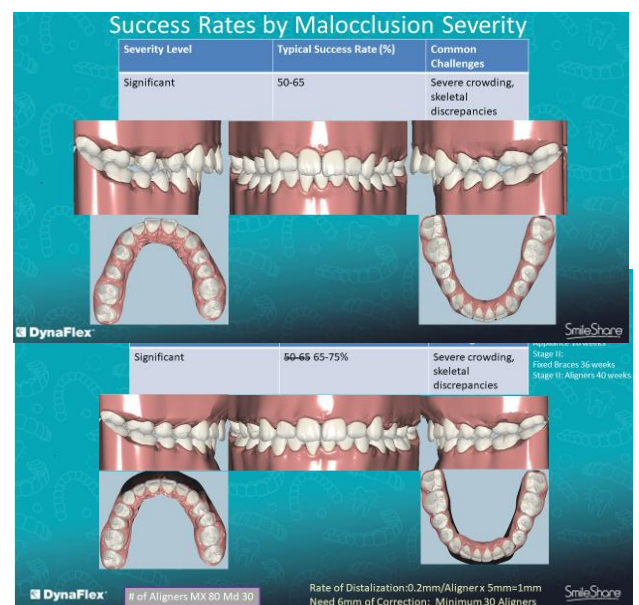
- Larger movements require more aligner stages.
- Root torque corrections and extensive rotations often require initial overcorrection followed by refinement steps.



3. Severe Malocclusions (40+ Aligners – Mx/Md Hybrid Combo)

Examples: Severe dental crowding exceeding 4.5mm, deep bite cases needing extensive intrusion, rotations beyond 30 degrees, or complete Class II or Class III orthodontic corrections with extractions as needed.

Efficiency: Less Efficient



Treatment time: Treatment duration ranges from 18 to over 30 months because multiple refinement stages may be necessary.

Predictability: In the initial stages of treatment, **55–70%** of targeted tooth movements are typically successful.

- Orthodontic procedures that demand high force include root torque and extrusion movements.
- The fit of aligners and patient adherence become essential components.
- Specialized occlusal adjustments often necessitate additional methods like elastics or Attachments.

ALIGNER INFORMATION FOR DOCTORS

Anticipated Finishes

Mild Cases:

When patients wear their aligners for the recommended duration and follow all directions, they can achieve a finish that ‘approaches’ ideal.

Moderate Cases:

The treatment will produce excellent results, but adjustments might be necessary for complete alignment for complex movements such as rotations or torque.

Severe Cases:

Patients must understand that while aligners substantially enhance dental alignment and bite, they will not consistently deliver a perfect result. Some cases require hybrid treatment methods combining fixed Lab appliances, braces, and other solutions.

Why They Can’t Get a Perfect Finish in Severe Cases:

Biological Limits: Tooth movement capabilities vary, and complex dental adjustments such as root torque demand exact mechanics, which aligners alone might find challenging to perform.

Force Dissipation: Aligners distribute their force across a wider surface area, decreasing their impact on high-force movements.

Patient Compliance: Patients with severe cases must wear aligners for extended periods and use auxiliary devices like elastics, which require strict adherence.

Occlusal Fine-Tuning: Braces display greater accuracy than aligners during detailed interarch adjustments.

Message to Patients:

Aligners work well to correct most dental misalignments with excellent results; however, more intensive measures could be necessary for severe malocclusions. Your doctor will direct you to the optimal treatment plan to efficiently and effectively align your teeth.

The rationale for Setting Expectations

Transparency: Patients who recognize aligners’ limitations experience reduced dissatisfaction.

Realistic Outcomes: Clear communication prevents patients from developing unrealistic expectations, which helps them stay on track and trust the treatment.

Long-Term Success: The importance of refinement or hybrid treatments demonstrates our dedication to delivering optimal results.





ABC's For Aligners

#1. Constantly Communicating Patient Info

Aligner Usage Methods for Different Malocclusion Categories Standard Wear Protocol

(Mild Cases)

1. Have the patient review the agreed-upon treatment plan virtual set-up. Get consent. Manage patient expectations before delivering aligners. (*Agreement*)
2. Pre-Schedule all appointments (*Maximizes Efficiency*)
3. Let the Patient know the office aligner policy should they decide to have additional movement after they finish their aligners. (*Important*)



Your structured aligner wear protocol implements a progressive schedule that reduces wear times for treatment.

- **First two aligners:** 2 weeks each.
- **The next three aligners are 10 days each. (Interproximal Reduction—IPR, Add Attachments at this appointment.**
- **Aligner #6 onward:** 7 days each.
- **Mandatory compliance:** 22 hours per day.

- **Aligner seaters:** Aligner seaters should be used for at least three days, twice daily for 10 minutes, during each new aligner change. **(3210 Rule)**

Research studies endorse this method because it adjusts specific types of malocclusion to improve treatment tracking and predictability.





Patient Information

How to Maximize Your Aligner Treatment Success

How to Wear Your Aligners for Standard Treatment

Aligners should be worn 22 hours daily, removed solely for eating and drinking beverages (other than water), and excellent oral hygiene care should be maintained.

- **Switch aligners as scheduled:**

First two aligners: Wear for 2 weeks each

Next three aligners: Wear for 10 days each

From aligner #6 onward: Wear for 7 days each

You should use chewies (aligner seaters) for 10 minutes twice daily during the first 3 days of wearing each new aligner.

Store your old aligners, as they may be needed for replacements.

Troubleshooting Common Issues

1. My aligners feel too Tight!

- This is normal at the beginning. Use seaters (chewies) to seat them properly. Remember, there should be no air between the aligners and teeth!

Wearing them regularly will eliminate discomfort after about 1-2 days. If discomfort persists, contact us about using a Pain Erase device.

2. My aligners are not fitting correctly.

- Anytime you change aligners, you must use the seaters for three days, twice daily, for 10 minutes to seat them fully (3210 Rule). You must wear your aligners continuously for 22 hours each day.

Should the aligners still not fit after following the 3210 Rule, call. We'll schedule an appointment and bring the current and past two sets of aligners to your appointment.

3. My aligners become loose before completing the scheduled wear time.

You should only switch aligners earlier than scheduled if your provider permits. Please discuss this with us at your appointment. Remember: Your teeth need time to stabilize.

Special Instructions for Your Case

Your orthodontist may adjust your aligner wear schedule based on your dental needs. Always bring your last two aligners plus your current set of aligners to your appointment. For example, Bring in aligners #12 and 13 plus your current aligner #14!



ABCs (Always Be Communicating) for Aligner Success

Orthodontic aligner therapy requires effective communication because it establishes the essential basis for successful treatment results. The treatment process involves direct communication between the orthodontist and clinical staff with patients and dental laboratories. **ALIGNER ABCs** examines how patient education plays a critical role in the successful application of aligners

Multiple factors demonstrate why patient education about their treatment remains essential.

- a) Understanding Treatment Plans:** Patients who understand the goals and steps of their treatment tend to take a more active role in their care.
- b) Enhancing Compliance:** Patients who understand their treatment instructions show greater adherence to protocols, such as wearing aligners for prescribed periods, improving treatment results.
- c) Reducing Anxiety:** Patients feel more at ease and cooperative when they understand the treatment process because understanding reduces their fears.

The orthodontic team must implement strategies to enhance communication between orthodontists, their staff, and patients.

Effective communication between orthodontic team members and patients

produces a unified treatment strategy.

- a) Active Listening:** When patients share their concerns and questions, trust builds while customized treatment plans are enabled.
 - b) Consistent Messaging:** When all team members deliver consistent information, they eliminate confusion and boost patients' confidence in their treatment.
 - c) Visual Aids:** Diagrams, models, and digital simulations enable patients to see their treatment progress and potential outcomes, which improves their understanding.
- Implementing various tools and methods leads to improved patient adherence to treatment and higher satisfaction levels.

Utilizing precise tools and methods to improve patient commitment to treatment protocols.

- a) Digital Reminders:** Patients receive automated reminders through messages or apps to follow their aligner schedule correctly.
 - b) Educational Materials:** Brochures and videos explaining compliance's significance strengthen verbal instructions.
 - c) Regular Follow-Ups:** Scheduled check-ins, which occur face-to-face or online, enable practitioners to track patient progress and solve problems as they appear.
- Effective communication between patients, lab technicians, and clinical staff remains crucial during treatment.

Maintaining uninterrupted communication between all individuals participating in the aligner process is crucial.

a) Patient: When patients receive transparent guidance and educational support, they follow treatment plans correctly, which results in positive medical results.

b) Clinical Staff: Effective internal communication keeps each team member updated about treatment plans and patient progress, allowing for coordinated care delivery.

c) Laboratory: Only when the lab receives precise and detailed information can aligners be fabricated with accuracy and proper functionality.

Benefits of Effective Communication

a) Improved Treatment Outcomes: Effective communication prevents misunderstandings which helps all involved parties focus on shared objectives.

b) Increased Patient Satisfaction: Patients who receive information and actively participate in their treatment process tend to report higher satisfaction levels.

c) Enhanced Efficiency: By streamlining communication, we reduce treatment errors and delays, thus enhancing overall treatment efficiency.

Problems Associated with Inadequate Communication

a) Misaligned Expectations: Patients develop unrealistic expectations when communication remains unclear, which creates dissatisfaction.

b) Errors in Aligner Fabrication: Providing incomplete or inaccurate information to the lab results in poorly fitting aligners, which require remakes and extended treatment time.

c) Decreased Compliance: Patients who fail to recognize the importance of their treatment role tend to follow protocols less effectively, undermining treatment outcomes.

True Communication

Engage patients in a conversation about their treatment objectives and educate them on their therapy's potential risks and constraints. After patients complete their examination, establish clear patient expectations to begin the treatment process.

The Detail Lab Instructions specify multiple treatment goals, ranging from Eight to Fifty-Two. What are you trying to accomplish?

Discuss the necessary components for effective aligner treatment with the patient.

(Commitment, Communication, Involvement)

Effective communication throughout each stage of aligner therapy must remain a top priority because it leads to the best treatment results and creates positive experiences for everyone involved.

Optimal results in orthodontic treatment with clear aligners require a systematic approach. The

"Align, Bite, Correct" sequence demonstrates why staging treatment correctly matters.

a) Alignment of Teeth: The first step of proper alignment involves addressing crowding and spacing issues to ensure teeth are positioned correctly.

b) Bite Correction: After teeth alignment, treatment should focus on eliminating malocclusions to establish correct occlusion.

c) Final Detailing: Complete the treatment by performing minor adjustments that optimize bite functionality and visual appearance.

The structured sequence ensures that every phase builds upon earlier work, thus generating efficient and effective treatment results.

The orthodontist and clinical staff must maintain clear lines of communication with their patients to achieve successful outcomes—patient compliance and satisfaction increase when instructions and expectations remain clear. The aligner process becomes more efficient and effective as team members deliver regular updates and feedback loops to address any arising issues quickly.

When communication fails to meet standards, patients misunderstand treatment plans, which results in lower compliance rates and less effective outcomes. The success of aligner therapy depends on establishing strong communication protocols.



Aligner Estimations for Tooth INTRUSION

Aligner Correction Calculation Guide

Desired(mm) Correction	Min Aligners (0.1mm/aligner)	Max Aligners (0.25mm/aligner)	Effective Min Aligners	Effective Max Aligners
1.0	10	4	25	10
1.5	15	6	37	15
2.0	20	8	49	20
✓2.5	25	10	61	25
3.0	30	12	74	30
3.5	35	14	86	35
4.0	40	16	98	40
4.5	45	18	110	44

This protocol includes a variety of parameters and assumptions, including perfect patient compliance, aligner seaters, and alterations to particular dental conditions (vertical maxillary excess, deep-bite corrections, and significant overbite corrections may require attachments).

*Based on (41%) Actual Reported Intrusion Movement from several studies. The above table will help identify the number of aligners that could be required based on the level of intrusion, including whether the intrusion was beneficial for each aligner and patient-specific variables like compliance.

This can help reduce REFINEMENTS & Treatment Time.

✓ **More than 2.5 mm Overbite reduction (Think Hybrid Stage I & Aligners Stage II)** The number of aligners required to achieve various tooth intrusion levels based on Kravitz's calculated force per aligner & confirmed by several studies.

Key Points

- **Intrusion Efficiencies:** Each aligner can achieve as much intrusion as it needs; studies recommend somewhere between 0.1mm and 0.25mm per aligner.
- **Patient Acceptance:** To perform effective treatment, the patient must wear aligners for approximately 22 hours daily. Unhappiness can dramatically change the outcome. • **Aligner Seaters:** Wearing aligner seaters on a prescribed basis can improve the fit and function of the aligners, thus creating the tooth movement you're trying to achieve.
- **Customization:** For patients with a vertical maxillary overbite ("gummy smile"), extra maxillary aligners may be prescribed to straighten the upper portion of the mouth. For example, to treat a deep bite, one could work on the mandibular arch to boost facial looks.

BEST PRACTICES

COMMON REASONS FOR SLOW ALIGNER PROGRESS

1 - CONSEQUENCES OF NOT WEARING ALIGNERS AS DIRECTED

a) Extended Treatment Time:

a. Impact: Failure to wear aligners for the recommended 22 hours daily can significantly delay the desired tooth movement and extend treatment time.

b. Reason: Teeth need constant pressure to move effectively. Without consistent wear, the treatment time will increase.

b) Incomplete Tooth Movement:

a. Impact: Teeth may not move into their intended positions.

b. Reason: Aligners are designed to apply precise pressure to teeth. Inconsistent wear means the teeth do not receive the necessary force to move as planned. (This may necessitate additional aligners or revision)

c) Alignment Setbacks:

a. Impact: Teeth may return to their original positions if aligners are not worn consistently.

b. Reason: Teeth naturally return to their original positions if not appropriately retained. This is called relapse.

d) Increased Treatment Costs:

a. Impact: Prolonged treatment can lead to additional costs for additional aligners.

b. Reason: Extra aligners, more frequent visits, or even new treatment plans/revisions may be required, increasing the overall cost.

2 - CONSEQUENCES OF NOT SEATING ALIGNERS COMPLETELY



a) Poor Fit and Discomfort:

i. Impact: Improperly seated aligners can cause discomfort and do not fit as intended.

ii. Reason: Aligners must be fully seated to

a) Poor Fit and Discomfort:

i. Impact: Improperly seated aligners can cause discomfort and do not fit as intended.

ii. Reason: Aligners must be fully seated to distribute pressure evenly across the teeth.

b) Ineffective Tooth Movement:

i. Impact: Teeth may not move as planned.

ii. Reason: Unseated Aligners do not apply the correct force to the teeth, leading to ineffective treatment.

c) Potential Damage to Aligners:

i. Impact: Aligners may become damaged or deformed.

ii. Reason: Improper insertion and removal can stress and crack the aligners, necessitating replacements.

d) Extended Treatment Duration:

i. Impact: Improperly seated aligners lead to delays.

ii. Reason: The treatment plan relies on precise movements, which are disrupted if aligners are not seated fully.

OVERALL IMPACT ON TREATMENT

Longer Treatment Time: Non-compliance with wear time and improper seating lead to extended treatment durations. The initial estimated treatment time can be significantly prolonged.

Higher Costs: Additional aligners, frequent orthodontic visits, and potential new treatment plans increase costs.

Reduced Effectiveness: The overall effectiveness of the treatment can be compromised, potentially requiring additional revisions or other treatments to achieve the desired results.

IMPORTANCE OF COMPLIANCE

FOR EFFECTIVE AND EFFICIENT PROGRESS, IT IS CRUCIAL FOR PATIENTS TO:

- ✓ **Wear Aligners for 22 Hours Daily:** Remove them only for eating, drinking (except water), and oral hygiene.
- ✓ **Ensure Proper Insertion and Seating:** Follow instructions for correct insertion and use bite seaters to ensure a snug fit.
Use Aligner Seaters for ten minutes twice daily for three days every time you change aligners!
- ✓ **Maintain Aligner Care:** Clean and store aligners properly to prevent damage and maintain hygiene. *When not in the mouth, keep aligners in the provided case.*



By following these guidelines, patients can help ensure their treatment progresses as planned, avoiding unnecessary delays and additional costs.



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HYBRID APPLIANCE DMAX Expansion & Distalizing Appliance

Staff Information Sheet

The DMAX appliance (Distalizing Maxillary Expander) is an orthodontic appliance invented by Dr Williams that combines upper jaw widening and upper back teeth distalization (moving posteriorly in the mouth). Here is a breakdown of its advantages, its potential for hybrid use with aligners, and how it compares with a standard full-time expander (such as the Rapid Palatal Expander, RPE).

Six Key Benefits Explained for Patients & Responsible Parties

1. Double Action in One Device: DMAX® combines those two movements – widening the upper jaw (transverse development) and backward pushing the top back teeth (distalization) – in a single appliance

2. Fewer appointments—Unlike other orthodontic appliances that require frequent adjustments, the DMAX® has springs that activate themselves, reducing the frequency of office visits.

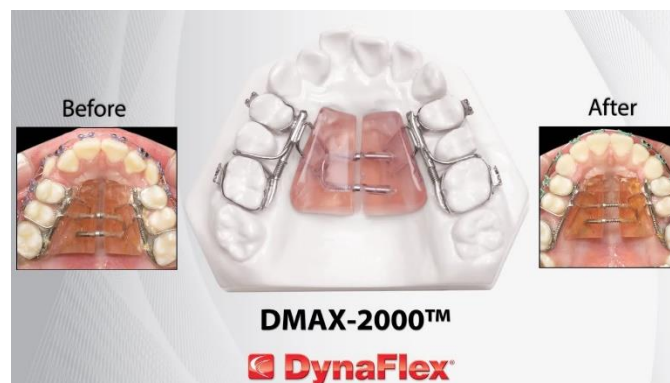
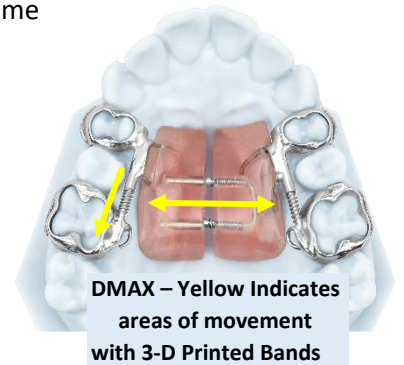
3. Gentle and Constant Pressure: The springs are adjustable, but there is no tightening process; it is a constant, gentle application of pressure, which can feel less intrusive than some appliances not using force that starts to feel tighter from adjustments.

4. Customization: The DMAX® can be fitted with additional accessories – e.g., an expansion screw to broaden it further **or a wire-only system to facilitate easy cleaning.**

5. No Alternative to Other Devices: The DMAX® is a permanent, low-maintenance alternative to removable devices that can be lost or not worn regularly.

6. Is It a Good Hybrid Appliance to Use with Aligners?

In such cases, the DMAX® can be a superior appliance to supplement aligners in a hybrid treatment. After setting the upper jaw and back teeth into an optimal relationship using the DMAX®, the finishing touches to tooth alignment and the resulting smile can be perfected using aligners. It takes the best of each appliance. The DMAX® sets up a stable target to allow the aligners created by SmileShare® to make further adjustments safely.



Next Step:

Aligners

SmileShare®

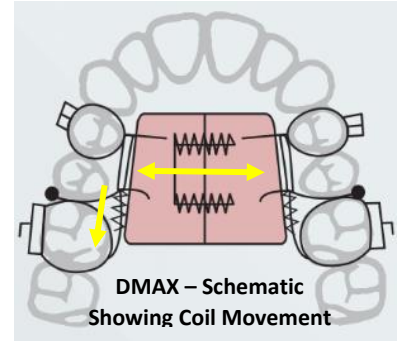


Nine Advantages of the DMAX® Over a Rapid Palatal Expander (RPE)

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ORTHODONTICS
"When Quality Counts"

1. Simultaneous Distalization: Whereas with the RPE, the molars must be visualized (repositioned further back) using specialized appliances after the expansion is complete, with the DMAX® appliance, the molars are moved back at the same time that the appliance expands the palate. This can help eliminate the need for a second specialized appliance used only to move the molars back.



2. Autoadjust Self-Activating System: The DMAX® was the first adjusting instrument to use spring action, not user-driven adjustment, which eases the process and makes it easier for the patient to undergo. There is no need to turn a "screw" in the mouth like with an RPE.

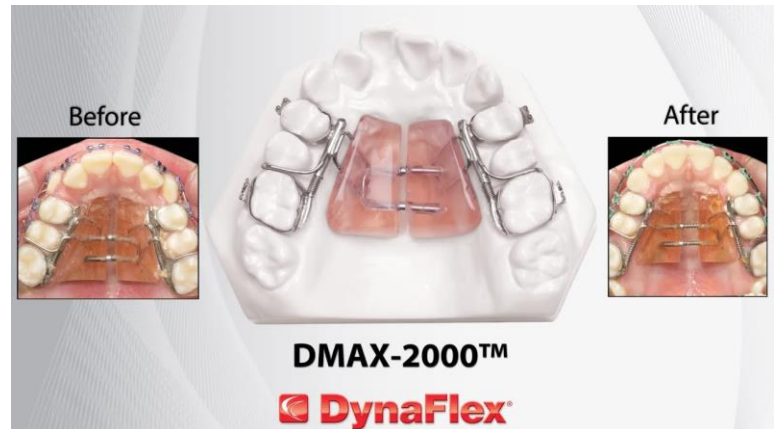
3. Lower maintenance: Recall visits for the DMAX® are mostly for observations, but RPEs often need frequent adjustments and monitoring.

4. Reduced patient compliance: Once fitted, it's fixed, and the spring mechanism works automatically, so patients don't have to remember to adjust or activate it, as is often the case with other wearable devices.

5. Gentler pressure: The constancy of the low forces from the nickel-titanium springs can provide a more comfortable stimulus than the higher forces associated with an RPE.

6. MINOR DEGREE OF CUSTOMIZATION CONSIDERATIONS: Additional expansion screws can be specified on DMAX®, as well as an all-wire design, which allows the device to be modified beyond our standard design to fit more patients.

7. More Hygienic Options: A wire-based design makes the DMAX® easier to clean and less likely to irritate your gums or cause plaque build-up than other models.



8. Versatility as a Hybrid Appliance: with aligners, it may make more complex movements easier – and perhaps shorten the time of aligner treatment

9. Alternative for non-surgical cases: What about less severe cases without surgical options? For some mild to moderate cases, the results of the DMAX® are on par with the success of an RPE without the same level of discomfort or invasiveness often seen in RPE apps.

These advantages contribute towards the versatility and practicality of the DMAX®, which should be considered when treating patients seeking combined expansion and molar adjustment (whether that's the sole treatment or combined within a hybrid aligner treatment plan).

SmileShare



BEST PATIENT PRACTICES WITH A DMAX®

IMPORTANT: Follow these seven patient instructions to ensure effective movement with the DMAX® appliance:

- 1. Maintain Consistent Oral Hygiene**
Clean thoroughly around the appliance daily, especially after meals, to prevent plaque buildup, which can hinder appliance effectiveness and lead to discomfort or complications.
- 2. Avoid Hard or Sticky Foods**
Avoid foods like gum, candy, popcorn, and crunchy items, as these can damage the appliance or interfere with its movements.
- 3. Follow Wear and Care Instructions**
If the appliance is removable, wear it for the prescribed hours daily. For fixed appliances, avoid tampering with or pressing on them with fingers or objects.
- 4. Attend All Scheduled Appointments**
Regular check-ups are essential for adjustments and ensure the appliance functions correctly, maximizing movement efficiency.
- 5. Use Any Recommended Accessories**
Follow instructions for any add-ons, like elastic wear that may support the appliance in moving teeth effectively.
- 6. Report Discomfort or Breakages Immediately**
If the appliance becomes loose or uncomfortable, contact your orthodontist promptly for adjustments to keep your treatment on track.
- 7. AVOID HOT FOODS**
Hot foods such as pizza out of the microwave may be too hot to eat. If the food cannot be held comfortably in the hand, it should not be eaten until it has cooled down. Ignoring this may lead to a burn in the mouth!

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