



The Premier Aligner Evidence Library

clearcorrect
A Straumann Group Brand

Introduction

This booklet presents the scientific foundation behind the ClearCorrect Premier Aligner. It brings together a curated body of peer-reviewed research to offer transparent, quantitative evidence for the aligner’s performance and design philosophy.

The content is organized by three key areas of innovation and clinical relevance. As our research evolves, this booklet will continue to grow to reflect emerging data and new insights.



ClearQuartz® Material

Explore the structure, composition, and functional performance of our proprietary tri-layer material engineered for consistent force delivery, patient comfort, and durability.



ClearCorrect® Performance Trimline

Discover the rationale behind our trimline design and its impact on aligner retention, force transmission, and tooth movement accuracy.



ClearControl™ Clinical Features

Review evidence for ClearCorrect’s advanced clinical features and their role in enhancing treatment outcomes in daily practice.

This booklet is designed to support clinical advisors, KOLs, and sales professionals in scientific discussions with clinicians, prospects, and conference attendees. It provides credible, evidence-based content that demonstrates the clinical validity and performance of ClearCorrect’s Premier Aligner.

TYPE OF STUDY



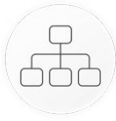
Clinical



In silico



In vitro



Systematic review / Meta-analysis

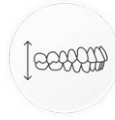
STUDY SCOPE



Material



Clinical Outcomes



Biomechanics



Patient Satisfaction

STUDY ACCESS



Open access



Restricted access

PUBLICATION CATEGORY



Original Research



ClearQuartz® Material

Latest aligner material innovation

Demonstrated superior stain resistance vs. the leading brand, preserving aligner clarity throughout wear [p.5/6](#)



CLEARQUARTZ®
OUTPERFORMS
IN STAINING
RESISTANCE DUE TO
LAYERED MATERIAL
ENGINEERING VERSUS
SMARTTRACK®

Chemical Composition and In Vitro Staining Resistance of SmartTrack® and ClearQuartz® Multi-layered Orthodontic Clear Aligners

Salvatori D, Bühler T, Birtel S
AJO-DO Clinical Companion, 2025

TYPE OF STUDY



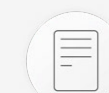
In Vitro

STUDY SCOPE



Material

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



No open access

Study Objectives

To compare chemical composition and staining resistance of SmartTrack® (Invisalign) vs. ClearQuartz® (ClearCorrect) aligners using Raman microscopy and in vitro staining in common staining agents.

Methods

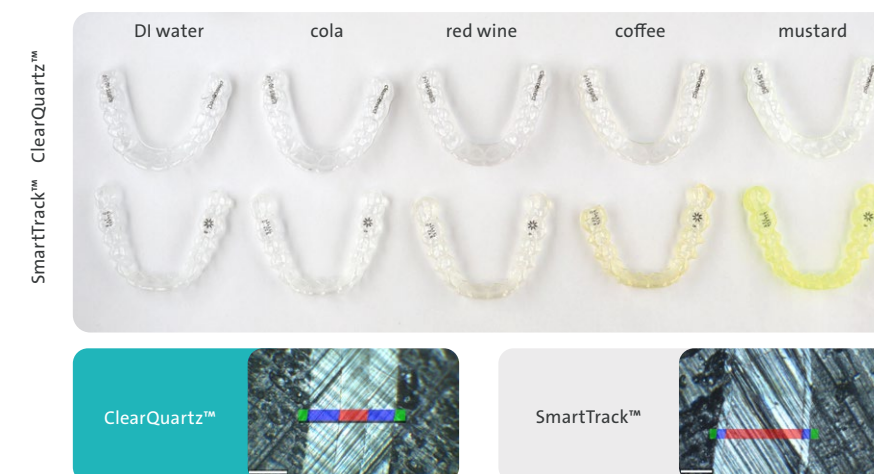
The aligners were immersed in coffee, cola, red wine, mustard, and distilled water (control) at 37°C for 24 hours. The color change (ΔE^*) was measured using CIELAB colorimetry. Raman microscopy was used for cross-sectional chemical layer analysis.

Key Results

Staining: ClearQuartz™ showed less staining across all tested agents compared to SmartTrack™. ClearQuartz's staining was limited to the trimming edge, not the outer surface. The polyurethane layer is prone to staining.

Material Structure: SmartTrack shows two thin outer layers (~0.05 mm, polyurethane elastomer (ETPU)) and a thick inner layer (rigid polyester (PETG or PCT)).

ClearQuartz shows an inverted 3-layer structure with equal layer thickness of about 0.15 mm each. The outer layers are made of a rigid polyester where the core is a soft polyurethane elastomer (ETPU).



Conclusions

Staining occurs primarily in the polyurethane elastomer. The outer layer configuration plays a crucial role:

- Polyester outer layers (ClearQuartz) act as barriers to staining compounds
- Polyurethane outer layers (SmartTrack) absorb stains readily and are harder to clean

TAKEAWAY MESSAGE

ClearQuartz's innovative layer design with stain-resistant polyester on the outside offers a superior aesthetic outcome over time, engineered for durability and clinical satisfaction.

Original Article



CLEARCORRECT® ALIGNERS SHOW BETTER STAIN RESISTANCE DUE TO HIGHER CHEMICAL STABILITY VERSUS OTHER ALIGNERS

Color and Chemical Stability of 3D-Printed and Thermoformed Polyurethane-Based Aligners

Šimunović L, Agović S, Marić A, Bačić I, Klarić E, Uribe F, Meštrović S
Polymers, 2024

TYPE OF STUDY

In Vitro

STUDY SCOPE

Material

PUBLICATION CATEGORY

Original Research

STUDY ACCESS

Open access



Study Objectives

To compare the color and chemical stability of 3D-printed vs. thermoformed polyurethane-based aligners from four brands after immersion in common staining agents (coffee, tea, Coca-Cola®, Red Bull®).

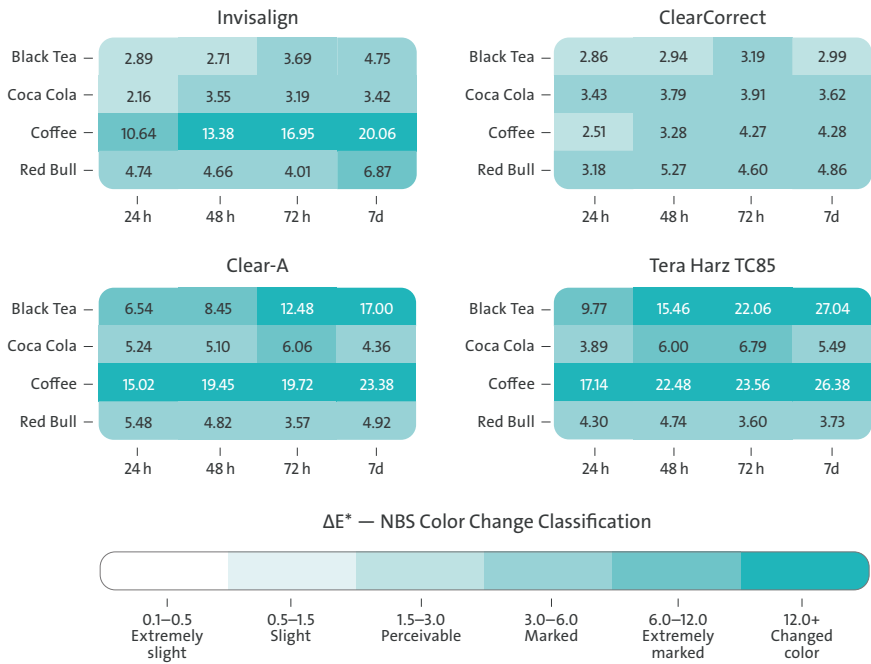
Methods

- Tested aligners:
- Thermoformed: ClearQuartz® (ClearCorrect) and SmartTrack® (Invisalign)
 - 3D printed: Tera Harz TC85 (Graphy), Clear-A (Senertek)

Aligners were exposed to staining agents for 24h, 48h, 72h and 7 days.

Key Results

- Coffee was the most potent staining agent, followed by black tea.
- ClearCorrect showed the least staining, even after 7 days of immersion.
- 3D-printed aligners (Tera Harz TC85 and Clear-A) exhibited dramatically higher color changes, often shifting to a visibly different color within 24–72 hrs.





Performance Trimline

Engineered for control and predictability

Proven to optimize force transmission for more accurate tooth movement and enhanced root control [p.9/10/11/12/13](#)

More retentive than scalloped aligners, reducing the need for engagers used for retention [p.12/14](#)

Improved torque control enabled by a high trimline that enhances retention and maximizes force delivery [p.11/12](#)



EXTENDED TRIMLINES
OPTIMIZE FORCE
DISTRIBUTION
LEADING TO MORE
ACCURATE TOOTH
MOVEMENTS

Effect of trimming line design and edge extension of orthodontic aligners on force transmission: An in vitro study

Elshazly T, Keilig L, Salvatori D, Chavanne P, Aldesoki M, Bourauel C
Journal of Dentistry, 2022

TYPE OF STUDY



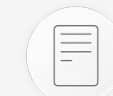
In Vitro

STUDY SCOPE



Biomechanics

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

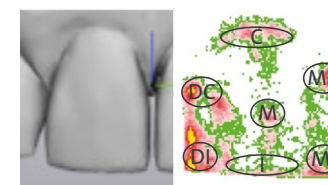
Study Objectives

Assessment of how different aligner trimming designs and gingival extensions influence the magnitude and distribution of forces applied to tooth surfaces.

Methods

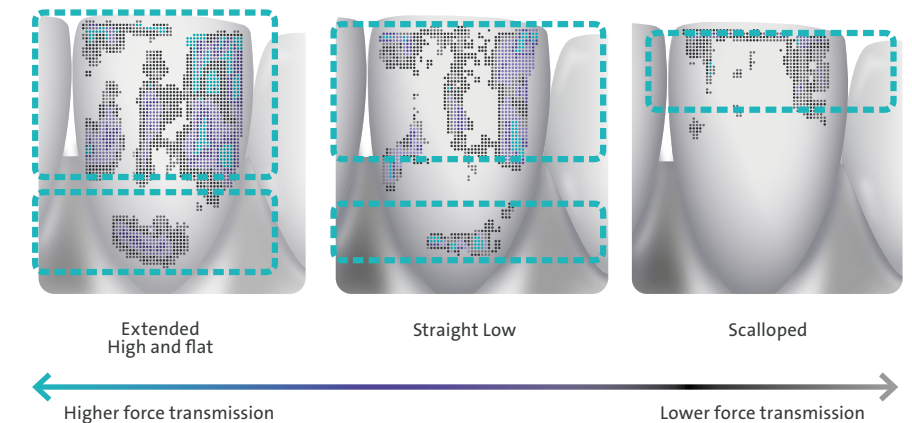
An in vitro study that directly measures forces and pressures on a tooth using Fuji Prescale films.

Forces evaluated at seven vestibular zones: Cervical (C), Middle (M), Incisal (I), Mesio-Incisal (MI), Mesio-Cervical (MC), Disto-Incisal (DI), and Disto-Cervical (DC) zone.



Key Results

- Cervical forces were significantly higher with Straight Extended designs
- Scalloped designs delivered the lowest force
- Thermoforming reduces aligner thickness by 60–75%, increasing flexibility and altering force distribution on the tooth surface



Conclusions

The Straight Extended trimline allows more uniform and stronger force delivery. The pressure generated at the cervical area shifts the applied force closer to the center of resistance, enabling high precision tooth movements.

TAKEAWAY MESSAGE

- Straight extended trimlines from ClearCorrect provide superior biomechanical performance
- Enhances force transmission and predictability of movement particularly for bodily tooth displacement without auxiliaries
- The ClearCorrect Performance Trimline can achieve predictable root control

Original Article



EXTENDED TRIMLINES
INDICATE SUPERIOR
FORCE DELIVERY
AND MOVEMENT
CONTROL

Effect of Trimming Line Design and Edge Extension of Orthodontic Aligners on Force Transmission: A 3D Finite Element Study

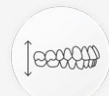
Elshazly T, Salvatori D, Elattar H, Bourauel C, Keilig L
Journal of the Mechanical Behavior of Biomedical Materials, 2023

TYPE OF STUDY



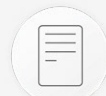
In Silico

STUDY SCOPE



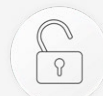
Biomechanics

PUBLICATION CATEGORY



Original Research

STUDY ACCESS

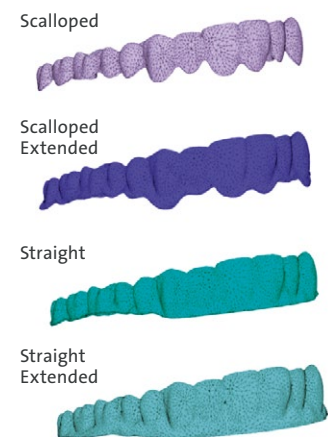


Open access

Methods

A validated finite element model simulated a 0.2 mm facial displacement of the upper right central incisor. The following aligner designs were tested:

- Scalloped
- Straight
- Scalloped Extended (2 mm)
- Straight Extended (2 mm)
- Aligner thicknesses: 0.3, 0.4, 0.5, 0.6 mm



Study Objectives

Evaluate how trimline design, edge extension, and aligner thickness influence force magnitude and distribution on a malpositioned upper right central incisor using 3D finite element simulation.

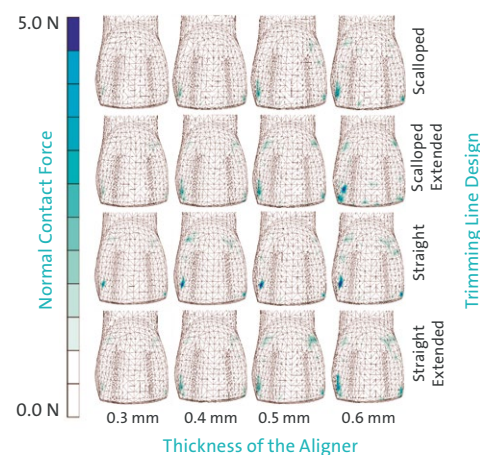
Key Results

Trimline Design Impact:

- Straight designs delivered higher forces than scalloped ones
- Edge extension significantly increased total force and enhanced force distribution, especially towards the cervical third of the crown

Aligner Thickness Impact:

- Force increased super-linearly with thickness
- Thicker aligners (>0.4 mm) transmitted larger and more concentrated forces



Conclusions

The straight extended trimline is the most biomechanically efficient option among the tested designs for predictable bodily movement due to its superior pressure distribution as well as better retention.

EXTENDED TRIMLINE
IMPROVES FORCE
TRANSMISSION FOR
BUCCOPALATAL
TRANSLATION

Impact of Buccopalatal Translation and Trimline Design on Clear Aligners: An In Vitro Study of the Maxillary Right Central Incisor

Traversa F, Mah J
Journal of Aligner Orthodontics, 2023

TYPE OF STUDY



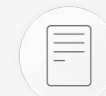
In Vitro

STUDY SCOPE



Biomechanics

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



No open access

Methods

30 ClearQuartz® aligners were tested using the Orthodontic Force Simulator (OFS).

Four test conditions, each having a 0.3 mm translation towards:

- Palatal, using the flat trimline
- Buccal, using the flat trimline
- Palatal, using the scalloped trimline
- Buccal, using the scalloped trimline

Force and torque values generated by the aligner on the central incisor were recorded.

The aligners were thermoformed and laser-trimmed.

Study Objectives

To analyze how trimline design (flat vs. scalloped) and direction of translation (buccal vs. palatal) influence the forces and moments exerted by ClearQuartz® aligners on a central incisor.

Key Results

Flat trimlines produced significantly higher forces and moments compared to scalloped trimlines.

- Highest force (7.51 N) and moment (15.94 Ncm) were seen in palatal translation with the flat trimline.
- Lowest force (2.96 N) and moment (6.58 Ncm) occurred in buccal translation with the scalloped trimline.

Scalloped designs were less effective in transferring force to the crown.

Conclusions

The findings demonstrate the large effect of trimline and movement direction on the aligner biomechanics.

TAKEAWAY MESSAGE

The ClearCorrect Performance Trimline enhances force magnitude, distributes pressure more effectively, and minimizes aligner lift. These properties are all essential for delivering controlled, predictable tooth movements.

Original Article



TAKEAWAY MESSAGE

Using a flat trimline creates a higher force level compared to scalloped which can lead to higher movement rates. Although the amount of movement simulated was the same in buccal and palatal direction, the force magnitude generated in the palatal translation is higher compared to the buccal translation.

Original Article



EXTENDED TRIMLINES
BOOST MOVEMENT
CONTROL ACROSS
DIFFERENT TEETH

Biomechanics of Clear Aligner Therapy: Assessing the Influence of Tooth Position and Flat Trimline Height in Translational Movements

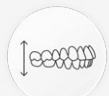
Traversa F, Chavanne P, Mah J
Orthodontics and Craniofacial Research, 2025

TYPE OF STUDY



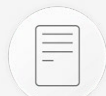
In Vitro

STUDY SCOPE



Biomechanics

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

Methods

30 ClearQuartz® aligners were tested on the Orthodontic Force Simulator (OFS).

- **Two trimlines:** flat at gingival margin (TL0, 15 aligners) and flat 2 mm extended above the gingival margin (TL2, 15 aligners)
- **Three teeth** tested including their closest neighbors: central incisor (11), canine (13), 1st molar (16)
- **0.3 mm translations** tested separately: palatal, mesial, intrusion

Outcome measurements:

- Three force and moment values, measured at center of resistance
- Signal to Noise Ratio (SNR) indicating the level of side effects

Study Objectives

To investigate how flat trimline height and tooth location in the arch affect force and moment delivery in clear aligner therapy during translational tooth movements.

Key Results

Trimline Matters: TL2 delivered higher forces and lower side effects (higher SNR) than TL0 in most cases. TL2 also kept side effects in a similar or even lower range compared to TL0.

Tooth Position Matters: Molars generated the highest forces across all movement types (palatal, mesial, intrusion), followed by canines and incisors. However, incisors showed higher unwanted tipping moments, making root control more challenging.

Movement Type Matters: Mesial translations produced the highest overall forces but also the lowest SNRs, suggesting less efficient force application. Intrusions showed unwanted palatal forces and moments. Palatal translations were most predictable in canines with TL2.

Neighboring teeth frequently absorbed up to 50% of force, which potentially triggers unintended bone remodeling.

Conclusions

- Aligners should be custom-designed based on tooth type and movement
- Consideration of force direction, tooth anatomy, and side effect distribution is critical for predictable outcomes

Original Article



EXTENDED TRIMLINES
OPTIMIZES FORCE
APPLICATION
AND ENHANCES
MOVEMENT CONTROL

Numerical Biomechanical Finite Element Analysis of Different Trimming Line Designs of Orthodontic Aligners: An In Silico Study

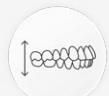
Elshazly T, Bourauel C, Chavanne P, Elattar H, Keilig L
Journal of the World Federation of Orthodontists, 2024

TYPE OF STUDY



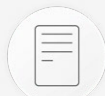
In silico

STUDY SCOPE



Biomechanics

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

Study Objectives

To evaluate how trimming line design and aligner thickness affect force transmission, stress distribution, and tooth movement control using a validated finite element model (FEM) of the upper central incisor with periodontal ligament (PDL) and bone.

Methods

Tooth 11 with 0.2 mm facial malalignment.

- Four trimming line designs: Scalloped, straight, scalloped 2mm extended, straight 2 mm extended
- Four aligner thicknesses: 0.3, 0.4, 0.5, and 0.6 mm

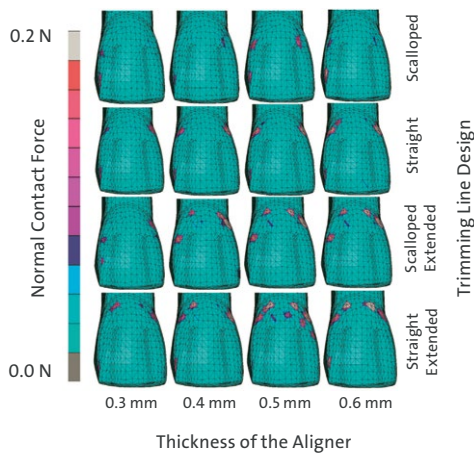
Key Results

Force Generation: Resultant forces ranged from 1.0 to 2.2 N, all within clinically acceptable levels. Additionally, the straight extended designs delivered stronger forces than scalloped or non-extended designs. Higher aligner thicknesses resulted in increased force levels.

Contact Force Distribution: Cervical and distal thirds of the crown received the most force in all scenarios, ideal for torque control. The extended designs shifted resulting force closer to the center of resistance.

Tooth Movement Control: All aligner configurations caused uncontrolled tipping. However, the straight extended trimline designs helped reduce apical displacement, suggesting better control for bodily movement.

PDL Stress Analysis: Stress levels remained within safe clinical thresholds for all scenarios.



Conclusions

A straight extended trimline is biomechanically superior, generating higher, better-distributed forces and allowing effective control with thinner aligners.

Original Article



TAKEAWAY MESSAGE

This study strongly supports ClearCorrect's Performance Trimline delivering predictable, efficient forces even with thinner aligners.

EXTENDED TRIMLINES
OPTIMIZE FORCE
APPLICATION AND
REDUCES NEED FOR
ATTACHMENTS

Effect of Attachment Configuration and Trim Line Design on the Force System of Orthodontic Aligners: A Finite Element Study on the Upper Central Incisor

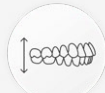
Elshazly T, Bourauel C, Aldesoki C, Salvatori D, Alhotan A, et al.
Orthodontics and Craniofacial Research, 2024

TYPE OF STUDY



In Silico

STUDY SCOPE



Biomechanics

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

Study Objectives

To investigate how trimming line design and attachment configuration affect force transmission during three types of tooth movements using a finite element model (FEM) of an upper central incisor.

Methods

Tooth 11 modeled with periodontal ligament (PDL) and bone structure, enhancing clinical relevance.

- **Three translations of 0.2 mm simulated: Facial, distal, extrusion**
- Aligners modeled with 0.6 mm thickness
- **Three engager designs:** None, horizontal, vertical
- **Two trimlines:** Scalloped and straight extended

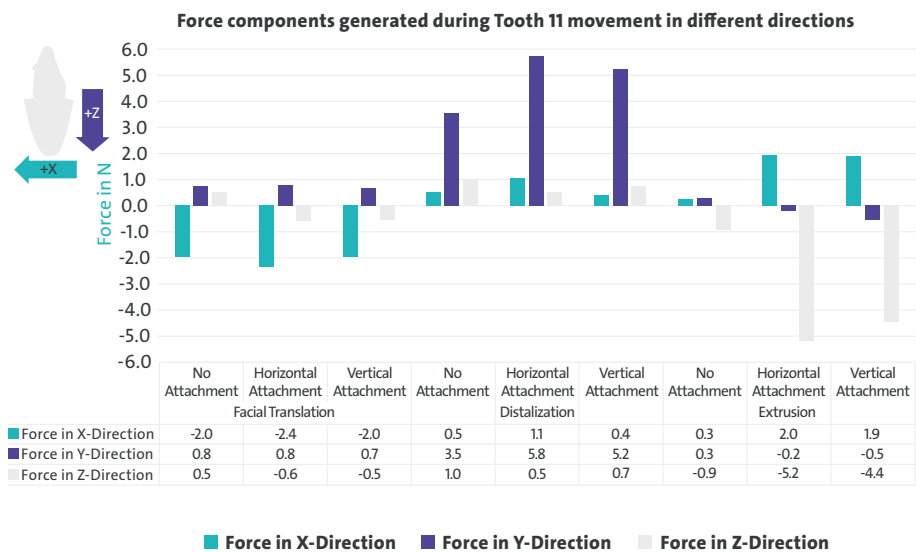
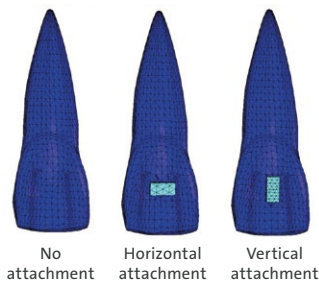
Key Results

Facial Translation: The straight extended trimline led to stronger forces and better movement control compared to scalloped. Attachments had minimal impact; tipping remained dominant.

Distalization: The straight extended trimline in combination with the horizontal attachment yielded the highest force (5.9 N) and minimized stress at the root apex. Attachments helped shift forces closer to the center of resistance, promoting bodily movement.

Extrusion: Attachments were critical for generating sufficient force. The horizontal attachment combined with the straight extended trimline resulted in highest extrusion force (2.0 N) and best control.

General Trends: The straight extended trimline alone improved force levels and could replace attachments in some cases. Additionally, the PDL stress patterns and displacement vectors confirmed improved control with the straight extended trimline across all movement types.



Conclusions

- Straight extended trimlines enhance force delivery and tooth movement control, especially in bodily movement
- Horizontal rectangular attachments are superior but may not always be needed if the trimline is optimized

TAKEAWAY MESSAGE

This study confirms that ClearCorrect's Performance Trimline delivers predictable tooth movement and control, even without engagers for facial translation.



Original Article





ClearControl™ Clinical Features

Optimized for the
ClearCorrect system

High Accuracy of Predicted
Tooth Movement with
ClearCorrect Aligners [p.17](#)

High satisfaction and very low
impact on quality of life during
ClearCorrect treatment [p.18](#)

ClearCorrect Aligners
Minimize Root Resorption
Compared to Braces [p.19](#)

CLEARCORRECT
ALIGNERS HAVE
SHOWN TO DELIVER
PREDICTABLE
OUTCOMES

Evaluation of the Success of Predicted Dental Changes with Clear-Aligner Treatment: A Pilot Study

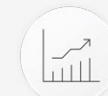
Caldas W, Bonin F, Piscinini J, Vianna C, Shimizu R, Trojan L
The Saudi Dental Journal, 2024

TYPE OF STUDY



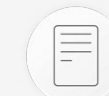
Clinical

STUDY SCOPE



Clinical
Outcomes

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

Intervention

Treatment Modality:
ClearCorrect aligners, 10-18
steps worn 2.4 ±0.21 weeks
for 22 hours a day.

Study Design Overview

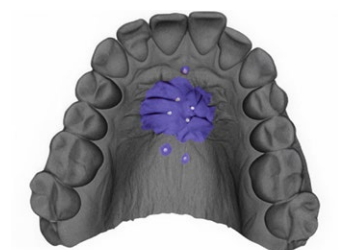
Study Type: Pilot Study.
Setting: Private Practice.
Duration: 2018 – 2019

Study Population

Sample Size: 5 patients
Inclusion Criteria: Class I,
healthy, compliant,
motivated.
Exclusion Criteria: gross
gingival/ periodontal
problems, severe crowding,
recent extraction,
tooth trauma.
Demographics: median age
of 30 years, range between
23 and 37 years.

Study Objectives

To evaluate how accurately ClearCorrect aligners
achieve the predicted tooth movements in patients
with Class I malocclusion, using 3D superimposition
techniques.



3D superimposition using the
palatal rugae as reference area

Key Results

	Intrusion	Extrusion	Lingual Constriction	Buccal Expansion	Distalization	Mesialization	Rotation	Lingual Tipping	Buccal Tipping
Maxilla Incisors	45.2	65.7	59.6	41.6	67.9	47.7	54.2	60.3	45.8
Maxilla Canines	37.8	35.7	44.0	99.3	57.4	50.9	72.0		
Maxilla Premolars	73.8	49.5	24.3	94.3	47.6	74.5	52.3		
Maxilla Molars	84.9	10.2	8.9	97.8	57.6	73.8	56.5		
Mandibula Incisors	87.0	67.0	70.5	86.2	64.4	98.6	75.7	57.4	69.3
Mandibula Canines	84.4	38.1	75.2	97.9	82.8	62.2	37.5		
Mandibula Premolars	59.8	70.0	86.9	87.1	43.7	55.1	67.0		
Mandibula Molars	66.1	67.7	14.3	89.6	52.7	63.8	56.6		

Conclusions

ClearCorrect achieved high success rates for most planned movements, especially
for incisor intrusion, buccal expansion, and anterior horizontal displacements.
Lower predictability was seen for molar extrusion and lower canine rotations,
which are known to be more challenging across clear aligner systems.

TAKEAWAY MESSAGE

This study demonstrates the clinical validity of ClearCorrect's digital treatment
planning and ClearControl™ clinical features in delivering predictable outcomes
across movement types.

Original Article



PATIENTS HAVE REPORTED HIGH SATISFACTION AND VERY LOW IMPACT ON QUALITY OF LIFE WITH CLEARCORRECT TREATMENT

Influence of Pain Duration and Severity on Oral Health-Related Quality of Life and Patient Satisfaction During Adult Treatment with Clear Aligners

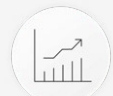
Caldas W, Bonin F, Vianna C, Shimizu R, Trojan L
Progress in Orthodontics, 2024

TYPE OF STUDY



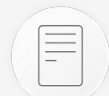
Clinical

STUDY SCOPE



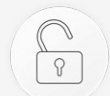
Clinical Outcomes

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

Intervention

- OHIP-14 questionnaire assessing oral health related quality of life (OHRQoL)
- Custom survey for pain, satisfaction, symptoms, and wear compliance

Study Design Overview

Study Type:

Cross-sectional study.

Setting: Private Practice.

Duration: April 2020 – June 2022.

Study Population

Sample Size: 94 patients.

Inclusion Criteria: Adults, active ClearCorrect® treatment.

Exclusion Criteria: Unsuitable oral or general health, need of orthodontic-surgical treatment.

Demographics: Median age of 33.9 years, range between 21 and 54 years.

Study Objectives

To evaluate how pain severity and duration during ClearCorrect clear aligner treatment influences oral health-related quality of life (OHRQoL) and patient satisfaction in adult patients.

Key Results

Pain Experience:

- 69.1% of patients reported pain lasting 1–3 days after aligner changes
- Pain was mild for 42.9%, moderate for 52.4%, and severe for 4.8%.
- Most common symptoms: gingival pressure (68.1%) and tongue irritation (34%)

Quality of Life (OHIP-14):

- Mean score: 3.36 ± 2.54 — indicating very low negative impact on quality of life
- Patients with moderate pain had significantly higher OHIP-14 scores than those with mild pain (3.92 vs 2.69; $p = 0.036$)
- The most affected domain was “psychological discomfort”, related to feelings of self-consciousness or tension

Satisfaction:

- 94.7% of patients were satisfied or very satisfied with treatment results
- 97.9% were satisfied or very satisfied with aligner aesthetics
- No significant difference in satisfaction based on pain severity or duration

Conclusions

Moderate pain slightly affects perceived quality of life, particularly psychological comfort. However, this does not influence overall treatment satisfaction, which remains high across all groups. ClearCorrect® aligners deliver high comfort and aesthetics, with low adverse impact even during symptomatic phases.

CLEARCORRECT ALIGNERS ARE SHOWN TO MINIMIZE ROOT RESORPTION COMPARED TO BRACES

Panoramic evaluation of external root resorption in mandibular molars during orthodontic treatment: a comparison between root-filled and vital teeth treated with fixed appliances or clear aligners

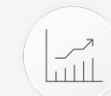
Kurnaz S, Buyukcavus M
BMC Oral Health, 2024

TYPE OF STUDY



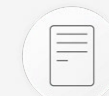
Clinical

STUDY SCOPE



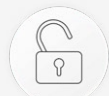
Clinical Outcomes

PUBLICATION CATEGORY



Original Research

STUDY ACCESS



Open access

Intervention

Treatment Modality:

Fixed appliances (FA) or ClearCorrect clear aligners (CA).

Study Design Overview

Study Type: Retrospective clinical study.

Setting: Private practice.

Duration: January 2022 – May 2024.

Study Population

Sample Size: 66 patients, 37 in FA and 29 in CA group.

Inclusion Criteria: high quality radiographs, complete permanent dentition, class I.

Exclusion Criteria: root canal treatment (RCT) during orthodontic treatment (OT), dental anomalies, trauma, previous OT, molar tipping.

Demographics: Mean age of 17.45 and 18.33 years in FA and CA groups.

Study Objectives

To compare the incidence and severity of external apical root resorption (EARR) in root-filled 1st molars (RFT) and vital pulp 1st molars (VPT) during orthodontic treatment (OT) with either fixed appliances (FA) or clear aligners (CA).

Key Results

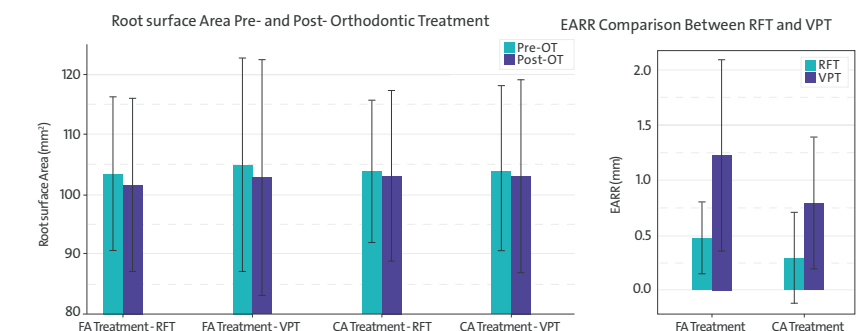
Overall EARR: All teeth showed some level of EARR, but CA-treated teeth showed significantly less resorption than FA-treated teeth.

RFT vs. VPT: RFT had less EARR than their VPT counterparts, regardless of treatment modality.

Treatment Duration: FA 1.96 years and CA 1.28 years

Root Surface Measurements: Reductions in root surface area were significantly smaller in the CA group vs. FA group ($p < 0.05$), confirming less severe resorption.

Mechanistic Insight: The ClearCorrect® aligners' Performance Trimline and ClearQuartz® tri-layer material likely contributed to more gentle, controlled, and intermittent force application, thereby reducing EARR risk.



Conclusions

ClearCorrect aligners led to significantly less EARR than fixed appliances in both RFT and VPT. RFT are more resistant to resorption, suggesting clinicians may proceed with caution but confidence when planning clear aligner therapy in such cases.

TAKEAWAY MESSAGE

The study results show the clinical comfort and acceptability of ClearCorrect® aligners, even among adult patients who may be more sensitive to discomfort.

Original Article



TAKEAWAY MESSAGE

The study results confirm ClearCorrect's biological safety in orthodontic treatment, especially for patients with root canal history. They reinforce the system's clinical reliability and biomechanical advantage.

Original Article





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