



## REINVENTING ALIGNER THERAPY WITH 4D TECHNOLOGY



SHAPE 2

BOOSTING

SHAPE 1



Clear X is a brand of K Line Europe, a leading clear aligner manufacturer in Germany. Since its inception in 2014, K Line Europe has produced over 4.5 million aligners, contributing to more than 500,000 improved smiles across the globe.

# K Line in Numbers

With more than 300 employees, cutting-edge, state of the art aligner manufacturing technology, patented innovations, and treatment plans designed by Orthodontists, K Line Europe stands for high quality aligners, made in Germany.

**+15**  
years

Our team has over 15 years of experience in clear aligners.

**+40**  
countries

K Line is represented in +40 countries around the globe.

**8**  
patents

We have an impressive portfolio of 8 unique patents registered.

**+ 4.5<sub>M</sub>**  
aligners

K Line has manufactured over 4 million aligners to date.

**+10<sub>K</sub>**  
aligners/day

Our daily production capacity is +10K aligners.

**+500<sub>K</sub>**  
treatments

We have improved +500.000 smiles worldwide

## Problem

With the increasing patient demand for aligners, the global environmental impact has increased significantly, resulting in a total plastic waste production of 15K tons, which is equal to the weight of 600 blue whales.

### ! 1,2 M\*

Total amount of aligners produced every day in 2023

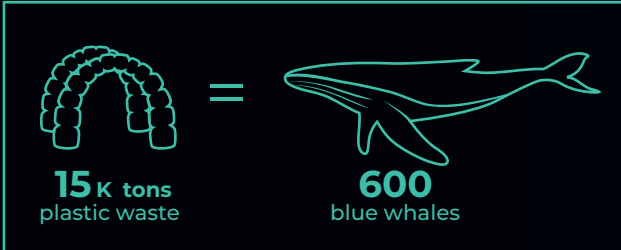
### ! 15 K\*

Total plastic waste produced by clear aligner manufacturing & packaging (in 2023)

### ! 4 kg\*

The resultant carbon footprint of a single aligner to be produced is around 4 kg of CO<sub>2</sub>

\* Insightsz.com





# Solution

ClearX is using highly innovative, patented technology to reduce the amount of plastic needed per treatment. Thanks to its 4D-Shape Shifting technology, and smart aligner materials, one aligner can perform two movements per stage, making it the world's most eco-friendly and sustainable aligner.

## ✓ **50% Less Plastic Waste**

ClearX's unique process requires half the number of aligners compared to conventional aligner systems

## ✓ **Reducing Environmental Impact**

ClearX aligners produce only 1.8 Kg of CO<sub>2</sub> compared to the 4 kg from conventional aligner systems.

## ✓ **Carbon Neutrality\***

Together with Climate Partner, ClearX is offsetting carbon emissions through climate projects.

\* [climatepartner.com](https://climatepartner.com)





# What is SHAPE-SHIFTING?

The shape-shifting technology operates based on the shape memory property inherent in a smart polymer. Initially, these materials assume a default configuration, known as Shape 1. When heat is applied to raise the polymer above its transition temperature, it becomes flexible, enabling it to be shaped into a secondary configuration, identified as Shape 2. To solidify this new shape, the polymer is cooled below its transition temperature, effectively "locking" Shape 2 in position.

The transition from Shape 1 to Shape 2 is known as reforming. When the polymer is reheated in a process called boosting, its memory properties are reactivated, causing it to return to Shape 1. With this advanced technology, the polymer undergoes a reversible transformation between two distinct states.

# 1 ALIGNER

## 2 SHAPES



### SHAPE 1

1st week wearing

In the first week, the patient wears the aligner with the first programmed shape.

### SHAPE 2

2nd week wearing

After boosting with hot water, the aligner has shifted to the next shape, which the patient will wear for another week.



# WHAT IS BOOSTING?

Boosting refers to the process in which the aligner is heated to a specific activation temperature, causing its shape to change to the next aligner stage, known as the boosting stage.



1

## Place the aligners in the booster

Place the aligners with the open side facing up in the booster device.



2

## Add boiling water

Pour boiling water into the booster to activate the aligner effectively.



3

## Wait 10 min

Close the lid of the booster and wait for 10 minutes.



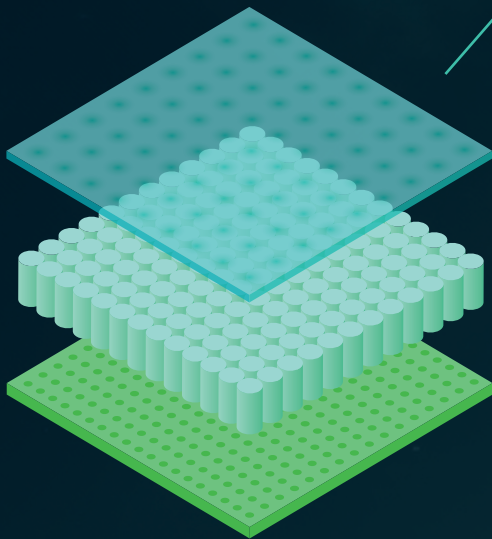
4

## Cool down your aligners

Allow the aligner to cool down before being placed in the mouth.



# CLEARX ALIGNER STRUCTURE



## 1 External layer

Offers exceptional abrasion resistance, serving as a barrier against the impact of chewing forces. It is also highly stain-resistant.

## 2 Central layer

The central elastomeric layer provides elasticity and flexibility to the entire structure, providing more comfort to the patient.

## 3 Internal layer

Featuring a robust and secure internal layer, it precisely hugs the teeth, helping to achieve the desired movements.

# Treatable Malocclusions

ClearX aligners are designed to treat a comprehensive range of treatments, from mild to severe. By leveraging cutting-edge technology, ClearX provides customized treatment plans that gradually and effectively shift teeth into the desired position. With ClearX, doctors can achieve predictable results and improve patient treatment experience.

- ClearX offers an advanced solution for treating various types of malocclusions with precision and comfort for adult patients.
- Personalized treatment plans that provides accurate and predictable outcomes
- ClearX delivers a nearly invisible and comfortable treatment option, boosting patient confidence and satisfaction



SPACING



OVER BITE



CROSS BITE



OPEN BITE



CROWDING



CLASS II



DEEP BITE



CLASS III



**BEFORE**

**AFTER**

#### Treatment indication:

Canine and molar Class I in the left side. Molar Class II in the right side with ectopic canine. Canine alignment and leveling. Deep bite correction. Sagittal correction: right canine and molar relationship

#### Treatment duration:

19 months

With permission of Dr. Miguel Teixeira



**BEFORE**

**AFTER**

#### Treatment indication:

Canine and molar Class I on the right side. Canine CII and molar CI in the left side. Crossbite correction. Teeth alignment. Smile line correction

#### Treatment duration:

13 months

With permission of Dr . Vladimira Barzashka

# YOUR CLEARX WORKFLOW

ClearX brings you a streamlined workflow that transforms how orthodontic treatment is delivered. Our process — from digital scans to precise 3D treatment planning and custom aligner production — is designed for accuracy, speed, and simplicity.

Embrace an efficient way to deliver outstanding orthodontic care with ClearX, providing an enhanced experience for both you and your patients.



## SCAN

Precise digital scan data is crucial for successful aligner treatment. Start the treatment with a detailed patient evaluation. Use the K Scan Pro (or any other scan device) to capture accurate 3D images of the patient's teeth and gums, ensuring precise data collection.

- Simplify digital impressions
- Advanced technology
- Faster and more accurate scans



## PLAN

Motion Viewer 2.0 offers cutting-edge software that converts digital scans into a comprehensive treatment plan. Dynamic 3D simulations illustrate the planned tooth movements. Benefit from the various features for optimal results.

- Powerful Orthodontic tools
- Advanced staging
- CBCT integration

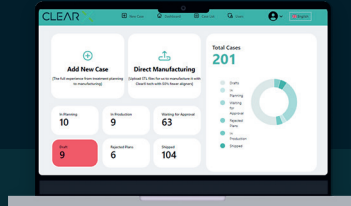




## TREAT

After your treatment plan is approved, you'll get the ClearX box with everything needed. The elegant packaging is divided into two sections — one for you and one for your patient, with the booster and all the instructions on using and boosting ClearX aligners.

- Treatment detailed information
- Clear and helpful instructions
- Modern and organized box



## MONITOR

Monitor your patients easily with the ClearX Portal. Our exclusive platform features a user-friendly interface for case submission, tracking, case progress and communicating directly with the ClearX team to help achieve optimal outcomes.

- Full treatment overview
- Real-time updates
- DoctorPro Service for online appointments



## RETAIN

Retainers are essential to maintaining outcomes after orthodontic treatment. ClearX aligner treatment includes a set of removable and clear retainers to help preserve the results and prevent teeth from shifting back to their original position.

- Customised fit
- Durable material
- Easy maintenance

## CLEARX TREATMENT TYPES



### SIMPLE

0-4 months (5 sets of aligners)

Orthodontic treatment relapses.  
Aesthetic treatments (Social Six).  
Mild Hybrid treatments. Slight crowding/ spacing. Overjet/ overbite improvement.

\* **1 free** refinement included



### MODERATE

5-10 months (10 sets of aligners)

Class I, II and III mild sagittal corrections. Pre-restoration corrections. Hybrid treatments. Moderate crowding/spacing. Predictable tip, torque, and rotation corrections. Moderate overbite, overjet and crossbite corrections.

\* **2 free** refinements included



### MAX

> 10 months ( $\infty$  amount of aligners)

Complex cases Class I, II and III sagittal, transverse and vertical corrections. Severe crowding/ spacing. Extractions. Deep bite, open bite and crossbite corrections.

\* **Unlimited** refinements included

**LESS ALIGNERS =  
LESS EXPENSIVE**

### OTHER BRANDS

6 m treatment  $\approx$  **20 aligners**



### CLEARX

6 m treatment  $\approx$  **10 aligners**



# Your ClearX Journey

The ClearX's doctor journey is simple and straightforward, ensuring an effortless integration of ClearX into the practice. Here's how it works:



## Fill contact form

Complete our simple online form to get started with ClearX.



## Chat to our team

Connect with our team of experts to get a personalised guidance.



## Onboarding

Benefit from a seamless onboarding with expert assistance from our specialists.



## Submit your cases

Upload your patient's pictures and scans to start the treatment planning process.



## Grow your practice

Use ClearX to expand your practice, boosting efficiency and patient satisfaction!

## START YOUR CLEARX JOURNEY NOW!

Scan this QR code or fill the contact form on our website: [clearxaligners.com](https://clearxaligners.com)





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