

**Internship
at
Clearpath Orthodontics**

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COMPANY PROFILE

ClearPath was incorporated in USA in 2008 after over 8 years of R&D. Lately, it has established regional headquarters & manufacturing unit in Jeddah, Saudi Arabia to cater to Asian & North African countries and today it is an established name in the Middle east for clear orthodontic treatment and the first company to launch clear aligner solutions for the Asian doctors!

Business Operations In:

INDIA | SAUDI ARABIA | UAE | NETHERLANDS | GERMANY | BELGIUM |
LUXEMBOURG | ALBANIA | MACEDONIA | JORDAN | LEBANON | EGYPT | SYRIA |
KENYA | SOUTH AFRICA | UGANDA | R.O. AFRICA | SRI LANKA | MALAYSIA

The ClearPath process is an amalgamation of

- *Conventional dental laboratory procedures*
- *Highly precise mechanical & software systems and*
- *Digital technology*
-

taking the best of three worlds.

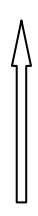
*Purpose is to make aligners available
globally at affordable prices!*

ClearPath was established with the mission to provide state of the art clear aligners as an affordable treatment option to the dental practitioners around the globe. The technology innovation of ClearPath Orthodontics' removable clear aligners not only gives the benefits of comfort, esthetics and hygiene to the patient but also offers control and predictability to the doctors in the course of treatment.

MISSION:

*To deliver high quality, affordable, clear
orthodontic aligner solutions to the global market*

Being a successful company is about more than just selling great products. ClearPath believes that building long-term relationships with our customers requires delivering superior training, support and services at every step along the way.



2008, ClearPath
2005, OrthoClear
1999, Align technology

BACKGROUND

When the destination is beautiful, why should the journey be painful?

Malocclusion is one of the most prevalent clinical conditions, affecting over ~70% of the Global population. While most individuals seek orthodontic treatment to improve their appearance, malocclusion may also be responsible for various dental problems such as tooth decay, tooth loss, gum disease, jaw joint pain and headaches. The only option available for correction of malocclusion till now was traditional orthodontic treatment i.e. braces!

Although braces are generally effective in correcting a wide range of malocclusions, they are subject to many limitations and disadvantages like unattractive appearance, discomfort, frequent lacerations, poor oral hygiene etc. Due to these limitations of braces, only a relatively small proportion of people with malocclusion seek traditional orthodontic treatment thereby creating a large need gap.

ClearPath was incorporated to cater to this large unmet need for an orthodontic system that addresses these patient concerns. ClearPath also believes that there is an unmet need among dental professionals for a treatment modality that increases the predictability and efficiency of treatment and enhances profitability of practice also.

CLEARPATH ALIGNER DETAILS

BASICS OF ALIGNERS:

1. An aligner is a **custom made clear plastic tray** that fits over your teeth and corrects their malpositioning.
2. Aligners are made in **medical grade plastic**, ClearPath uses FDA approved plastic, made by **Raintree Essix, Inc. USA** to make aligners.
3. Each aligner moves teeth a **little bit** by exerting light, continuous & uninterrupted pressure on them.
4. These aligners provide a **hygienic, convenient and a clear solution** for the correction of malocclusion without having to wear brackets and wires.
5. These aligners are **removable** and patients can eat, brush and floss their teeth and **enjoy their normal life**.
6. These aligners are **nearly invisible** and nobody can notice the aligners when you are wearing them.
7. ClearPath aligners are made by an **internationally patented unique process**, which involves advanced technology supported by customized software and mechanical systems.
8. The treatment comprises of a **series of aligners**. Each set has to be worn by the patient for **~22 hrs in a day** for **2 weeks** before advancing to the next set. Treatment duration is **6-24 months** depending on the severity of case.
9. Recommended age limit for usage is **14 to 65 years** of age.
10. Aligners apply precise, light, uninterrupted & continuous forces on the teeth so they are not painful but a slight discomfort may be experienced at the beginning of treatment, which goes away within 24 hours. Aligners are made in medical grade plastic unlike metal wires braces, which hurt your cheeks and lips.
11. Aligners are **not a new appliance**. Millions of People have already been treated with aligners in developed countries like USA, UK, Middle East and other European countries and their number is increasing every day.

TYPES OF ALIGNER SYSTEMS:

1. MANUAL SETUP ALIGNERS: Entire processing & fabrication done by manual process in the laboratory by a technician.

Disadvantages:

- a) Non Predictable
- b) Multiple impressions required
- c) More chair side time
- d) Imprecise & inaccurate procedure
- e) Cannot treat complex & extraction cases

Examples:

- a) Conventional Laboratory Vacuum Forming Technique (e.g. using Biostar machine)
- b) MaxDent Ortho's Removable aligner systems
- c) MTM Aligners
- d) ClearAligner International

2. CAD CAM ALIGNERS: Entire processing & fabrication is done by an automated process which is an amalgamation of *Conventional dental laboratory procedures, highly precise mechanical & software systems and Digital technology*

Advantages:

- a) Predictable and can accurately show the results of treatment and exact no. of aligners at the beginning of the treatment!
- b) Only 1 impressions required in the beginning
- c) Only 10 minutes of chair side time required per 6 weeks per patient
- d) Highly precise, automated & sophisticated procedure
- e) Can treat all varieties of cases, including extraction cases, crossbites, rotations, edge to edge, bi-maxillary protrusion etc.

Examples:

- a) Invisalign
- b) ClearPath

ADVANTAGES OF ALIGNERS:

FOR THE PATIENT

1. **CLEAR:** ClearPath is virtually invisible. Hardly anyone gets to know you're straightening your teeth. So now you can align your teeth and get the smile you always desired without having any social inhibitions.
2. **REMOVABLE:** You can remove ClearPath Aligner to eat, drink, brush, floss or for special occasions.
3. **COMFORTABLE:** With ClearPath, the edges are smooth so they won't irritate your gums or cheeks.
4. **PREDICTABLE & EFFECTIVE:** With ClearPath, You can see the treatment outcome even before starting it and start enjoying a better smile even before completing the treatment.
5. **CUSTOMIZED:** Your doctor will take precise impressions and customize your aligners for your teeth.



FOR THE DOCTOR

- 1) **EVIDENCE BASED & SCIENTIFIC (PRECISION OF MOVEMENT):** The entire process is designed to deliver customized aligner that moves each tooth directly along the most efficient way to achieve the desired goal. By optimizing each aligners output, the number of aligners and intermediate changes required are minimized leading to shorter treatment times for patients, and increased capacity for practice.
- 2) **ACCURACY** of regeneration of patient occlusion without any digital data manipulation, eliminating any potential inaccuracy of appliance fit.
- 3) **MORE CONTROL OVER TREATMENT** with our batch aligner shipment products where treatment can be modified in between batches during the course of treatment.
- 4) **SUPERIOR CLARITY OF ALIGNERS** compared to other aligners available in the market which makes it more transparent and a hygienic choice.
- 5) **FASTER TURNAROUND TIME** from the time a case is received to the time aligners are shipped back to the doctor.
- 6) **UNLIMITED MODIFICATIONS** to the diagnostic setup are allowed.
- 7) **QUALITY** ensured at each step of the process monitored by trained and experienced dental staff members.
- 8) **ACCURATE AND PRECISE IPR** using original patient dentition without any digital error introduced to it.
- 9) Original Patient Data used during the whole manufacturing process from casting to treatments and aligner fabrication which adds to the accuracy of the end product and ensures **BETTER TREATMENT OUTCOME.**
- 10) **EXPANDED PATIENT BASE:** ClearPath has the potential to exponentially grow the practice of orthodontics. We believe that ClearPath will allow dental professionals to attract patients who would not otherwise seek orthodontic treatment.
- 11) **DECREASED CHAIR SIDE TIME:** ClearPath reduces both the frequency and length of patient visits. ClearPath eliminates the need for time-intensive processes such as bonding appliances to the patient's teeth, adjusting arch wires during the course of treatment and removing the appliances at the conclusion of treatment. As such, use of ClearPath reduces dental professional and staff chair time and can increase practice throughput.

LIMITATIONS WITH BRACES:

Although braces are generally effective in correcting a wide range of malocclusions, they are subject to many limitations and disadvantages. Conventional orthodontic treatment is associated with:

UNATTRACTIVE APPEARANCE: Braces call attention to the patient's condition and treatment. In addition, braces trap food, which can further compromise appearance. Braces can also result in permanent discoloration of teeth. Many adults associate braces with adolescence.

ORAL DISCOMFORT: Braces are sharp and bulky and can abrade and irritate the interior surfaces of the mouth. The tightening or adjustment of braces results in root and gum soreness and discomfort, especially in the few days immediately following an orthodontic visit.

POOR ORAL HYGIENE: Braces compromise oral hygiene by making it more difficult to brush and floss. These problems can result in tooth decay and periodontal damage. Additionally, the bonding of brackets to teeth can cause permanent markings on the teeth.

INABILITY TO PROJECT TREATMENT: Historically, dental professionals have not had means to model the movement of teeth over a course of treatment. Accordingly, they must rely on intuition and judgment to plan and project treatment. As a result, they cannot be precise about the direction or distance of expected tooth movement between patient visits. This lack of predictability may result in unwanted tooth movements and can limit their ability to estimate the duration & course of treatment.

PHYSICAL DEMANDS ON DENTAL PROFESSIONAL: The manipulation of wires and brackets requires sustained manual dexterity and visual acuity, and may place other physical burdens on the dental professionals.

ROOT RESORPTION: The sustained high levels of force associated with conventional treatment can result in root resorption, which is a shortening of tooth roots. This shortening can have substantial adverse periodontal consequences for the patient.

EMERGENCIES: At times, braces need to be repaired or replaced on an emergency basis. Such emergencies cause significant inconvenience to both the patient and the dental professional.

LIMITATIONS WITH ALIGNERS:

In some instances, Clearpath may have certain limitations relative to conventional treatment. Aligners cost more to produce than conventional braces, and we charge dental professionals more than they generally pay for the supplies used in conventional treatment. Depending on the individual pricing policies of each dental professional, the cost of Clearpath to the patient may be greater than for conventional braces.

Dental professionals must also incorporate our manufacturing cycle times into their overall treatment plan. Once a dental professional submits a case to us, there is generally a turn-around time of 3-4 weeks before the aligners are delivered.

Aligners may not be appropriate for all cases, such as severe malocclusion, which may require Aligners to be used in combination with conventional braces for optimal results. In addition, because aligners are removable, treatment using Clearpath depends on patients wearing their aligners as recommended. Some patients may experience a temporary period of adjustment to wearing aligners that may mildly affect speech.

HOW DOES IT WORK? :

1) GETTING STARTED

Patients will start off by locating a ClearPath Certified Provider.

Doctor evaluates patients' oral condition and discuss patient problems & treatment goals. Once it's established that ClearPath is the right treatment option for the patient; the doctor will take impressions, photos and x-rays that are necessary for ClearPath's custom aligner manufacturing.

2) CUSTOM TREATMENT PLAN

The doctor sends the records —impressions, photos and x-rays — to ClearPath with a prescription for custom aligners. ClearPath uses these records to create exact 3D models of the teeth. Then working with the doctor at every step, and following the precise instructions provided on the prescription, ClearPath maps out a complete treatment plan of gradual adjustment that takes the teeth from where they are currently to where they want them to end up. Once the impressions are processed, the patient & doctor will be able to preview the projected results of treatment in "treatment set-up," a computerized digital representation of teeth before and after treatment.

3) THE ALIGNERS ARE COMPUTER CRAFTED

Once the patient & doctor are satisfied and approve the projected results shown in treatment set-up, the manufacturing process begins. Using the latest digital mapping and molding technology, ClearPath fabricates custom aligners with software guided precision. ClearPath then sends aligners to the respective doctor for delivery to the patient.

4) PROGRESS WEARING ALIGNERS

Patients are advised to wear the aligners all the time, except while eating and drinking and during daily tooth care, such as brushing and flossing. ClearPath aligners are so clear they are barely noticeable so they won't have an impact on patient's day to day life. Aligner by aligner, patient will be able to see the difference as teeth slowly adjust and align to the target smile.

Patient visits the doctor periodically for check-ups & follow-ups (preferably once every month) to see the progress until he eventually has the great smile he always wanted.

HOW TO GET CLEARPATH? :

1) GATHER PATIENT RECORDS:

- a) Impressions: *Both upper and lower impressions in rubber base (PVS).*
- b) Bite Registration
- c) Photos: *Intra-oral, Extra-oral and profile photographs of patients.*
- d) Radiographs: *Lateral Cephalogram & OPG*
- e) Diagnosis and Treatment Form: *Filled completely.*

2) **SUBMIT** all these records to ClearPath office.

3) TREATMENT PLAN:

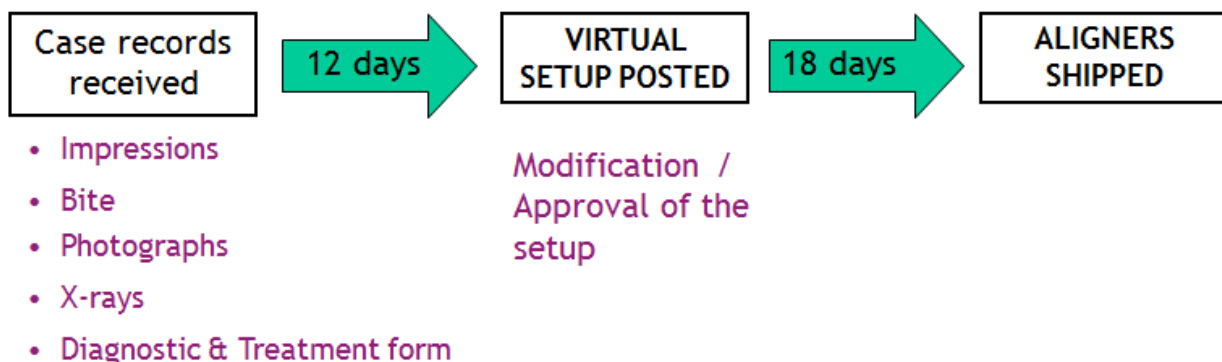
Intimation is sent regarding receipt of records & entry into system post which you confirm the treatment plan for the patient by evaluating the tooth movements & before-after scenarios on the Online Diagnostic Setup.

4) ALIGNER MANUFACTURING:

Once the Diagnostic Setup is approved, the plan is locked and sent for manufacturing process initiation. The aligners are designed, manufactured & dispatched to the clinic in 2 weeks.

5) PROGRESS WITH ALIGNERS:

Patients should be advised to wear the aligners all the time, except while eating and drinking and during daily tooth care, such as brushing and flossing. Each set has to be worn by the patient for ~22 hrs in a day for 2 weeks before advancing to the next set. Periodic checkups should be made to see how the patient is progressing. Aligner by aligner, you'll be able to see the difference as teeth slowly adjust and align to the target smile.



CLEARPATH MANUFACTURING:

Once a case is received it goes through a number of steps before it is ready for the doctor's review. This includes impression and records evaluation, digitization & integration of the records, computerized manipulation of the digitized model suitable for constructing a diagnostic setup, and uploading on website for doctor's review. This whole process includes a number of quality checks and quality assurance monitoring to ensure optimum quality product delivery to the customer.

ClearPath is committed to post the online diagnostic setup for review by the treating doctor within 7 working days from the receipt of complete records. After posting the online diagnostic setup, if the treating doctor desires some modifications, it will take around 2 to 5 working days to redeliver the modified setup.

In a situation where ClearPath receives incomplete / faulty patient records, the case is put on hold and communication to the concerned doctor is initiated to get accurate and complete records. This time period is not included in the 7 working days required by ClearPath for setting up the online diagnostic setup.

Once the diagnostic setup is approved by the concerned doctor it takes ~15 working days to ship the aligners to the doctor.

THE CLEARPATH ADVANTAGE:

1. Doorstep collection of impression anywhere & everywhere
2. Doorstep collection of payment anywhere & everywhere
3. Multiple modes of payment accepted
4. Multiple currency options
5. Unlimited free case reviews by experienced orthodontists on our panel
6. One free post treatment refinement per case (if required)
7. Free treatment planning assistance by most experienced orthodontists in CAD/CAM aligner technology
8. Flexibility in IPR scheduling

COMPARISON BETWEEN ALIGNERS & BRACES

Aligners	Brackets and wires
Nearly invisible	Visible
Completely removable	Not removable
With aligners its easier to clean teeth	Very difficult to maintain good oral hygiene
Less irritation and injury to patient's cheeks	Constant source of irritation and discomfort
Better chewing and digestion for total body health	Difficult to chew food while having brackets and wires inside mouth
Can correct harmful habits that can distort body growth.	Does not help
Less discomfort to patient during the treatment	Painful during treatment
Less chair side time is required	Lengthy appointments
Less visits are required and are also pain free	More frequent visits are required
Better jaw alignment, proportion and function	Does not help
Calculated and precise tooth movements are given through aligners and controlled force is applied	No as such control of movements and force
Doctor and Patient can see the outcome of the treatment in advance	Does not apply

DELIVERABLES (as Area business manager)

- Acquisitions of new clients
- Management of old clients
- Boosting sales by distribution of brochures , posters and samples
- Client relationship
- Establishing market position of the product
- Introduction of new concept