



orthotrain

EMPOWERING CLINICIANS

“*Education is the most powerful weapon which you can use to change the world.*”  
~Nelson Mandela

## For the Thinking Clinician

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OrthoTrain is a one year guidance program. It has been designed to empower involved, Thinking Clinicians, to practice Orthodontics independently and broaden their repertoire of offered services.

An understanding of orthodontics enables practitioners to provide a holistic treatment plan to treat pre-teens, teenagers, adult patients and complex restorative inter-disciplinary cases. Newer technologies will be discussed and reviewed in detail, to enable their implementation in order to assist orthodontic procedures.

As far as practice goes, it is perfectly legal, and viable for a Dental Practitioner to practice Orthodontics independently.



🌊 Live Patient in the 1st batch, Feb. 05

🌊 Happy 16th, Aug. 2012 batch

🌊 Understanding Normal Occlusion  
(First Row Left: Dr. Maria Noboya -  
OrthoTrain's 1st Global Candidate  
from Nigeria)

Videos 🌊

Lectures 🌊

Typodonts 🌊

Live Demos 🌊

Live Patients 🌊

Hands-On Activities 🌊

Enjoyable sessions 🌊

## About OrthoTrain

A comprehensive six module program conceptualized for dental practitioners to incorporate fixed Orthodontics into their day-to-day routine practice. The course designed and devised for the Thinking Clinician and optimised for the Indian scenario, takes a practical approach toward Orthodontics.

Spanning over a year, the small-group format will give you the individual attention needed to develop skills that will improve your esthetic results and expand the services that you can provide in your practice. You will enjoy the hands-on experience with fixed and removable orthodontics to enhance facial esthetics on live patients.

This course is aimed at assuring a thorough understanding for all the participants, who are guided, so as to avoid common mistakes and malpractices without having to pay the heavy price of first-hand experience.

## The Curriculum

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The course has been structured to span across 6 bi-monthly modules, to best facilitate thorough learning for the participants.

The first module comprises of four one-day sessions, at the end of which, the participants will have acquired enough skill, expertise and confidence to start practicing Orthodontia at their own clinics. Participants will be working on live patients from this module itself. The consecutive five modules will comprise of two one-day sessions each.

During the course, the participants will be guided with regards to case diagnosis and forming of appropriate treatment plans. The goal is to discuss, explore, and remedy problems; to establish a doubt-free understanding.

Also an important piece of wisdom imparted, is the wisdom to know which cases to undertake and which ones to refer to a more experienced orthodontist. The course includes training, as well as guidance for the participants even after the course is completed.

## Comprehensive Diagnosis

1. Case History
2. Clinical Examination
3. Functional Analysis
4. Study Models Analysis
5. Cephalometric Analysis
6. Radiographic Analysis
7. Photographic Analysis

- 🌊 Bonding on Typodonts
- 🌊 Procedure Demonstration
- 🌊 Fun times with the 5<sup>th</sup> batch on certification night.



# MODULE 1

## **Diagnosis**

*Compiling a comprehensive case study, evaluating facial aesthetics, performing a complete clinical examination and assessing diagnostic records.*

## **Model Analysis**

*Analysing the dental cast, to comprehend occlusion and dentition from all three dimensions, in order to determine the degree and severity of malocclusion.*

## **Cephalometric Tracing**

*Clarifying the 5 main components in cephalometric analysis to trace and interpret the cephalogram data, for Orthodontic cases.*

## **Photographic Analysis**

*Understanding what photographic records are to be archived, in order to analyse the relationship between craniofacial skeleton and the soft-tissue facial contours of the patient through the course of treatment.*

## **Case Selection**

*Selection of suitable cases for initial treatment. Participants will select patients to treat and cases to refer.*

## **Occlusion**

*The concepts of centric relation, centric occlusion and maximum intercuspation position (MIP) are clarified in detail to get a gnathological perspective of normal functional occlusion.*

## **Treatment Planning**

*Understanding the philosophy of treatment planning, the mode of treatment and appliances, and the need or lack of extraction.*

## **Bonding on Ideal Casts**

*Initiation into orthodontics by practicing to bond brackets on ideal casts and learning how to use measuring gauges.*

## **Stages of treatment**

*An explanation on the three crucial stages in orthodontic cases and determining the goals of each stage.*

## **Bonding on Typodonts**

*Practicing on Typodonts to attain a better understanding of how actual orthodontic brackets work.*

## **Wires and appliances**

*Wires and brackets: understanding the orthodontist's armamentarium and the specifics involved in choosing the right appliance system.*

## **Archwires on Typodonts**

*Another hands-on Typodont session: stimulating tooth movement with a thorough understanding of each archwire to be used in treatment.*

## **Mechano-therapy**

*Understanding how to maximize the desired tooth movement and minimize side effects. Control of the occlusal plane during orthodontic mechanotherapy should be an integral part of every clinician's treatment plan.*

## **Finishing and Detailing**

*Learning to use inter-arch elastics and achieve optimal results for long term stability.*

## **Retention**

*Introduction to the theory and management of retention, fixed and removable after the completion of orthodontic treatment.*

# MODULE 2

## **Biology of Tooth Movement**

*An explanation on the philosophy of teeth movement, and its variables.*

## **Mixed Dentition Treatment**

*Diagnosis and treatment planning for mixed dentition cases.*

## **Serial Extractions**

*Planning the interception, and initiating serial extractions in early stages of mixed dentition.*

## **Banding of Typodonts**

*Working on typodonts to gain in-depth understanding of how the actual bonding of orthodontic brackets and use of measuring gauges work. And a short discourse on the theory and methodology of banding and bonding of orthodontic attachments; along with separation and molar banding techniques.*



 Live Patients

 Working on typodonts

# MODULE 3

## **Bio-Mechanics**

*Understanding the bio-mechanics of forces, couples and moments i.e. the magnitude and direction, in order to be biologically compatible with the tissue's health.*

## **Wire-Bending exercises**

*A hands-on exercise, on the basics of wire bending, initial archwires placement, loop and circle designs, lacebacks, center and off-center bends.*

## **Adult Orthodontics**

*Adults versus adolescents, understanding the difference in the treatment plans.*

## **Patient's Perception**

*Understanding the patient's perspective and incorporating the same into clinical practice.*

## **Clinical Tips and Errors**

*Practical knowledge on what slip-ups can be circumvented.*



≈ Nuances of wire bending

≈ Cephalometric Tracing

≈ 14th Batch, August 2011

## **Air-Rotor Stripping**

*Techniques to resolve, mild to moderate crowding, or proclination of the adult dentition, without resorting to extractions.*

## **Management of Class III cases**

*Lecture on the theory and management of the true skeletal Class III malocclusion cases.*

## **Splinting and Fixed Retention**

*Understanding the usage of bonded forms of retention when conventional retention is inadequate.*



Live patient

## **Surgical Exposure of Canine**

*Planning and methods of surgical uncovering of impactions and moving them in alignment.*

## **Lingual Orthodontics**

*Understanding theory and appliance design of a fixed lingual appliance, along with a discussion on treatment planning and reviewing of cases.*

## **Overview of Begg's Technique**

*Taking a closer look on how a simple force may cause tipping and/or rotation of the tooth upon which it acts.*

## **Myo-Functional appliances**

*Understanding the true potential of Myo-functional appliances to correct, poor mandibular posture that causes malocclusion, and improve facial aesthetics in pre-teen cases.*



# MODULE 6

## **Palatal Expansion**

*Introduction on the theory and application of expansion of the maxillary arch. And understanding the design and usage of various styles of expanders – slow and rapid, fixed and removable.*

## **Indirect Bonding**

*Understanding the technique of Indirect Bonding, which allows all braces to be placed in a precise simultaneous manner; first on the cast and then transferred onto the patient's oral cavity.*

## **Orthodontic Micro-Implants**

*A demonstration on the clinical use of micro implants, in the new biomechanics of orthodontic treatment for anchorage, followed by a hands-on session on suitable models.*

## **Inter-Disciplinary Orthodontics**

*Understanding the dynamics of treatment plans for a holistic inter-disciplinary approach in orthodontics.*



Orissa Chapter - Jan. 2011 batch

“ *A mind is like a parachute, it doesn't work if it's not open.* ”  
~Frank Zappa

## About the Course Director

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Dr. Akshay Rathi a passionate Orthodontist himself, has been educating and mentoring enthusiastic dentists in the art of Orthodontia, since 2005.

A Mumbai University Topper and Gold Medalist, he graduated from GDC, and did his post-graduation in Orthodontics from Nair Hospital Dental College, Mumbai; where he also served as a full time lecturer. Through his meritorious academic career, he has received numerous scholarships, including IDA awards for proficiency in Orthodontia, Community Dentistry, and Paediatric Dentistry.

He maintains an exclusive Orthodontic practice in Juhu, and also consults at leading Private Clinics. Having presented and published several papers, his passion and expertise in Orthodontics is well known.



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## **Course Venue - Mumbai**

121, Ground floor, Juhu Jivan, Swami Samarth Ramdas Marg, Gulmohar  
Cross Road no. 8, JVPD Scheme, Mumbai 400049. India.

## **Course Venue - Orissa**

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*Batches begin in February and August each year.*