ALL INDIA INSTITUTE OF MEDICAL SCIENCES JODHPUR



1st Two day Course on

"BIOMECHANICS IN ORTHODONTICS (BIO)"

By



Associate Clinical Professor & Director

Centre for Orthodontic Care

University of Connecticut Health Centre, USA



Date: 9th &10th April, 2019
VENUE: AIIMS, JODHPUR



ORGANISED BY

DEPARTMENT OF DENTISTRY, ALL INDIA INSTITUTE OF MEDICAL SCIENCES, JODHPUR

In Collaboration with Rajasthan Orthodontic Study Group

WELCOME INVITATION

All India Institute of Medical Sciences, Jodhpur welcomes you to the "Blue City Jodhpur" and "1st Course on Biomechanics in Orthodontics"

The purpose of this course is to introduce participants to concepts of mechanics as they apply to tooth movement. The participant should gain an understanding of the mechanical principles that govern tooth movement and develop the ability to link the fundamentals to actual clinical situation from a mechanical perspective. Many of these concepts are never discussed in a regular curriculum but are fundamental in understanding many clinical situations. It will deal with some intricate concepts to address some day to day clinical problems.

CHIEF COURSE FACULTY

Dr. Madhur Upadhyay is Associate Clinical Professor, Division of Orthodontics, Dept of Craniofacial Sciences, University of Connecticut Health Centre, Connecticut, USA. He is also the Director of the Orthodontic Fellowship Program at UConn. Dr. Upadhyay is a Diplomat of the American Board of Orthodontics (ABO) and holds an active membership of The Angle Society.



He has published over 100 scientific papers, book chapters & abstracts in national and international journal and has made numerous scientific presentations at various meeting throughout the world. He is on the editorial board of various orthodontic journals, like; American journal of Orthodontics & Dentofacial Orthopedics, Angle Orthodontist, European Journal of Orthodontics etc.

He is the Director of two graduate courses titled: Fundamentals of Biomechanics (BIO1) & Advanced Biomechanics (BIO2) comprising over 70 hours of didactic & problem-based education. He regularly conducts this Courses on Biomechanics at various schools in USA. He has also been trained and worked with the likes of legendry late Dr. Burstone. He maintains an active intramural practice at UCONN Health. In his spare time, he loves to play & follow tennis. He also has keen interest in physical sciences, especially astronomy.

PROGRAM SCHEDULE

Registration: 8:00 AM - 9:00 AM Duration: 9:00 AM - 4:00 PM Total sessions: 4

Type: Presentation, Interactive, Q&A, Discussion, Problem solving.

DAY 1: FUNDAMENTAL CONCEPTS (BIO-1)

OUTLINE (BIO-1):

- 1. Introduction:
- a. What is BIO-1?
- b. Course details, Requirements, outline of the course, Need for mechanics; Science of orthodontics,

20 g

10 mm

- c. Treatment sequence.
- 2. Required mathematical tools:
- a. Trigonometric functions,
- b. Vectors,
- c. Arc length of a circle,
- d. Units in Orthodontics.
- 3. Basic tooth movements:
- a. Tipping,
- b. Translation,
- c. Torqueina.
- d. Center of mass (resistance),
- e. Equivalent force systems.
- 4. Concept of Center of Rotation: Emphasis on general planar tooth movements.
- 5. M/F ratios & Concept of MC/MF ratio and balancing them, Newton's laws
- & Equilibrium in orthodontics.
- 6. One couple force systems
- 7. Two couple force systems.

120 g

DAY 2: ADVANCED ORTHODONTIC BIOMECHANICS (BIO-2)

15 mm

25 mm

OUTLINE (BIO-2):

- 1. Arch wires
- 2. Two bracket and three bracket arch wire interactions
- 3. Center of rotation (CROT) and how to customize it.
- 4. Lever Principle
- 5. Simple Linear Beam Theory
- 6. Resistance to sliding: Friction & binding.
- 7. Application of simple biomechanical principles to solve fundamental clinical problems.
- 8. Loop Mechanics.
- 9. Clinical Applications:

Mechanics of aligning teeth, space closure (Stepwise & En-masse), canine impactions, deep/open bite Correction etc.

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M

Dr. Sam Prasanth Dr. Gaurav Jain Dr. Ranu Rathore Dr. Navleen Kaur Dr. Ashish Choudhry Dr. Shruti Khatana Dr. Suresh Soni Dr. Renuka

Dr. Rinkle

Registration Fee for Course* (Includes Lunch and Tea/Coffee)

Category	Early Bird (Till 15th March)	Till 5 th April 2019	6 th April to On Spot
PG Student	2500	3000	3500
Faculty/Delegate	es 3000	3500	4000

*Limited to 35 Participants Only

<u>Please Note:</u> For post graduates In campus hostel accommodation on twin sharing basis (Nominal charges) is available on first cum first serve basis.

Bank Account Details

Account No.

18720100023082

IFSC Code:

BARBOINDJOD (Fifth Letter is Zero)

Bank Name: Bank of E

Bank of Baroda, Industrial Area Marudhar Branch, Jodhpur

Payment Details: Demand Draft/Multicity Cheque to be drawn in favour of "Department of Dentistry Academics" payable at Jodhpur NEFT details to be mailed at drvinaychd@yahoo.com

For enquiries please contact

Dr. Ekta Gupta: 8619710151 Dr. Sam Prasanth: 7010878751

Dr. Vinay K Chugh: 8003996704

"BIOMECHANICS IN ORTHODONTICS (BIO)"

DATE: 9TH&10TH APRIL, 2019 VENUE: AIIMS, JODHPUR

REGISTRATION FORM

Name:			
Designation: PG Student			
Faculty/Delegate			
Institute/College:			
Mobile:Em	ail:		
Mode of Payment : Cheque/DD NEFT IMPS			
Bank Name : Branch :			
For Rupees:			
For Rupees(In words)			
Endorsement by Head of Departmen	t Signature		
(If Post Graduate Student)			
Submit your duly filled form to drvinaychd@yahoo.com			
For Enquiry please contact	Organizing Secretary		
Dr. Ekta Gupta: 8619710151 Dr. Sam Prasanth : 7010878751 Dr. Vinay K Chugh : 8003996704	Dr. Vinay K Chugh Associate Professor, Dept of Dentistry, AIIMS, Jodhpur		
Please Note: For post graduates In constant sharing basis (Nominal charges) is as	ampus hostel accommodation on twin vailable on first cum first serve basis.		