Speaker: **Dr. Peter Buschang**

Lecture Title: Review on Accelerated Orthodontics

Description:

Orthodontists have been trying to accelerate tooth movements for over 100 years. Surgically facilitated tooth movement, especially alveolar corticotomies, hold the greatest potential for clinical applications and provide the best supporting evidence. This lecture will be shown that tooth movements are approximately twice as fast with corticotomies, but the duration of the effect is more limited than commonly portrayed. As such, the orthodontist must carefully plan when the corticotomies should be performed. Clinical guidelines for the application of corticotimies by orthodontists will be provided. It will also be shown that the rates of tooth movement obtained with corticotomies depend greatly on the extent of the injury - the greater the injury, the greater the tooth movements. Moreover, it is not just the injury to bone that needs to be considered. The periosteal blood supply also plays a fundamentally important role. It will also be shown that the less invasive procedures that injure cortical bone without flap surgery may not increase rates of tooth movement. In addition, it will be shown that orthodontist may have reconsider the notion that dehiscence formation can be prevented by combining corticotomies, particular bone grafting and buccally directed orthodontic forces. The lecture will end byn evaluating the effects of how vibrational forces on tooth movements and on the surrounding bone.

Learning objectives:

1. Understand the basic biology behind faster tooth movements
2. Become familiar with the various procedures that have been introduced to accelerate tooth movements.
3. Provide evidence for the procedures that accelerate tooth movements and those that do not.

Short Biography:

Dr. Buschang is regents professor and director of orthodontic research at Texas A&M University Baylor College of Dentistry. He was recently honored with the Peter H. Buschang endowed Professorship. After receiving his PhD, he was a NIDR postdoctoral fellow in the Department of Orthodontics University of Connecticut Health Science Center and then a FRSQ scholar in the Orthodontic section and Human Growth Research Center at the University of Montreal. His research interests focus on craniofacial growth, developmental adaptations to orthodontic and surgical treatments and oral-motor function. He has published over 250 peer-reviewed articles and numerous book chapters, he has given over 110 invited lectures and workshops, and has served as associate editor for several journals. Dr. Buschang is the only non-orthodontist to hold honorary memberships in both the American Association of Orthodontics and the Edward H. Angle Society. In 2011, his former residents honored him by establishing the Peter H. Buschang Endowed Professorship in Orthodontics.