Short Bio

Dr. Yahya Tosun graduated from Istanbul University in 1984 and worked as a faculty member at Aegean University Faculty of Dentistry, Department of Orthodontics for nearly 20 years. He is currently working in his private clinic in Dubai, United Arab Emirates. with other dental specialties in an interdisciplinary approach.

He also organizes modular course programs in Turkey and lectures on “advanced techniques in orthodontics” in Europe, particularly in Germany and Poland, within the scope of the Luxembourg-based DTMD (Digital Technology for Medicine and Dentistry) University.

Dr. Tosun is the author and editor of 4 books, including “Biomechanical Principles of Fixed Appliances”. His areas of interest include interdisciplinary treatments, adult orthodontics, early orthodontic treatments and clear aligner treatments.

Dr. Yahya Tosun believes that dentistry is a harmonious combination of art, science and passion and prioritizes a human-centered holistic treatment approach in his clinical practice. In connection with this, he accepts it as a principle to include his patients in their treatment planning process in all treatment approaches.

'Continuous learning' is Dr. Yahya Tosun's life purpose. Traveling, photography, watercolor painting, personal development, active sports, meditation and breathing exercises are integral parts of his daily life.

Dr Tosun, is the father of two boys and a girl and speaks English and French.

Are Clear Aligners Proactive, and Fixed Appliances Reactive?

Clear aligners have revolutionized the field of orthodontics in recent years, significantly advancing both their technology and their capacity to achieve complex tooth movements. As a result, they have increasingly challenged the long-standing dominance of fixed appliance systems. Today, a substantial proportion of orthodontic cases fall within the treatment scope of clear aligners. Undoubtedly, this shift has been fueled by both the growing demand from patients and the enthusiasm of clinicians.

Nonetheless, fixed appliance systems—proven over more than a century to deliver reliable and high-quality treatment outcomes—remain indispensable, particularly for managing complex malocclusions. The reality is that, regardless of our level of experience, a significant portion of clinical time in orthodontics is often spent correcting biomechanical issues of our own making.

According to one hypothesis, the key advantage of clear aligner therapy over fixed appliances lies in the precision and predictability offered by digital treatment planning. Aligner treatments are meticulously designed and executed through advanced software systems, whereas fixed appliance therapies are more susceptible to variability and human error due to their manual nature at every stage.

But how valid is this hypothesis today? Can current clear aligner software platforms truly predict and manage orthodontic treatment processes with high efficiency and accuracy? Conversely, does the “human factor” inherent in fixed appliance therapy compromise the quality of the treatment outcome?

This presentation will explore and critically compare these two treatment modalities—clear aligners and fixed appliances—from a biomechanical perspective.