

Digital Orthodontics

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Abstract

As the world turns more & more digital/virtual, especially with the pandemic still at large, we doctors need to adapt with latest technologies and innovations so that we can provide our patients the best treatment with minimal visits to our dental office.

With digital orthodontics we can achieve high level of precision to design and create occlusions that are unique for each patient. It all starts with a simple scan to create a digital model. Each model contains 40000 data points per tooth to 1 million data points per arch so that we can create a precise digital set up.

Adding skeletal maps using radiographs brings an extra insight to treatment planning and by using intelligent arch forms, the treatment can progress quickly as teeth are well maintained within trabecular bone as much as possible.

The individual teeth are automatically segmented and labeled so that the doctor can utilize the software to know where they fit within the arch. The software then adds root position data from the digital library, using the data collected from the radiographs providing the accurate information on patient's malocclusion during digital treatment planning.

Changes you make will appear in real time on the screen and using the 3D control function you will be able to see the effects of your changes in occlusion. You can

change tip, torque, rotation, height, in-out, and mesiodistal positioning and makeover changes in smile arc too. Even overcorrections are easy.

Once the optimal occlusion has been designed the software reverse engineers the appliances that will help create the desired customized results for each patient. The software also helps the doctor to create the ideal occlusion based on the skeletal information and dental landmarks on each tooth and it factors information regarding cuspid function & tooth size discrepancy so that doctor can examine final occlusion even before we actually start the treatment.

As doctors have complete control over the software, every aspect of the case can be re-evaluated to make changes if required, even during treatment.

I will also share few cases I did using digital orthodontic treatment planning.

Biography

Deepak Victor is a highly skilled Orthodontist in Chennai, India holding an experience of 15 years in dental field. His areas of expertise lie in Braces as well as Clear Aligners. He believes in providing convenient, comfortable and safe orthodontic care to every patient he treats and provides a full range of aesthetic orthodontic procedures such as braces as well as clear aligners. Currently he has his practice limited to Orthodontics, both in India and in the Middle East.