



The efficient treatment of crossbite correction

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The pursuit of efficiency is one of the aims and ideal of the orthodontic treatment. The so-called efficiency refers to the shortest possible time, the simplest device, the most appropriate time to achieve the best results. This report will present the various orthodontic treatments of anterior crossbites cases especially the most commonly encountered in the Asians and explains how to design an efficient orthodontic appliance.

Traditionally, there are different types of anterior crossbite correction device, such as lingual arch with the spring finger, 2 by 4 fixed edgewise system, the reverse labial bow appliance inclined bite plate, removable finger the spring, quadrahelix appliance, chin cap, the reverse headgear, observation, combination ... and so on. Each device has its advantages and disadvantages, which the lingual arch with finger spring I use the device for more than two decades, and has developed simple and effective treatment modalities.

Review of the literature, there is little report of this therapy. This study attempts to use the finite element analysis to find optimized design, and application in clinical cases of treatment, statistical analysis proved effective. This report will also show the procedures, a step by step to resolve how to bend this simple orthodontic appliance, and the scientific effects results of this appliance by using 30 cases.

Curriculum Vitae

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Professor Cheng is the current President of Taiwan Association of Orthodontists (TAO) (2017-2018) and vice dean of College of Oral Medicine, Taipei Medical University. He has been the chairman of Journal of TAO Committee and editor in chief of TAO Journal (2013-2016), chair of school of dentistry in Taipei Medical University (2011-2017), vice superintendent of Taipei Medical University Hospital (2005-2009). He graduated from school of dentistry, Taipei Medical University in 1983 and got Master degree and PhD from the same university in 1995 and 2008, respectively.

He has practiced in orthodontics over 30 years and also engaged in teaching and research in his school

of dentistry for over 25 years. His major researches were surface treatment of orthodontic TADs and high molecular orthodontic material, esthetic smile in orthodontics, efficient orthodontic treatment of anterior cross-bite, evidence-based in orthodontics..., etc. He also major in dental infection control and administrative management in dental offices and hospitals. He has published over 300 different kinds of academic and clinical papers and over 10 textbooks in dental infection control, administrative management in dentistry and orthodontics. He has been often invited to make lectures about his associated researches and specialties around the Asian countries and got an enthusiastic response.