

Lingual Orthodontics today in 2008.

There is a definite renaissance of Lingual Orthodontics today. When attending Orthodontic congresses and meetings all over the world, a part of them is dedicated to the lingual technique.

What has stimulated this renaissance?

Predictable results through tried and tested techniques, better brackets, innovation in the field of instruments for indirect bonding (which is considered to be essential in the lingual technique) and the progress through to CAD / CAM and individualized treatment plans.

Dr's Scuzzo, Takemoto, Fillion and Hiro have all contributed to the success of Lingual Orthodontics, inspiring other Dr's from all over the world to start using their techniques and to participate in studies thus changing some of the ideas and values that were originally laid down by Kurz, Gorman and Smith, just as the MBT system has been widely accepted as an improvement on the original SWA system from Andrews.

One of the major leaps forwards was the CAD / CAM system "Igcognito" (Beautiful name!) from Dr Dirk Weichmann. This moved away from the traditional methods and uses customized brackets made from Gold, including specially bent archwires that will follow the treatment plan through to the end, easy for the Dr...BUT expensive for the patient. It has however contributed greatly to the growth of lingual orthodontics by tempting less confident practitioners to 'have a go'.

On the manufactured brackets front, there have also been a number of significant steps forwards, such as the very small STb, leading to improved patient comfort and tolerance. Other manufacturers have concentrated on Self-Ligating brackets for ease of use, however their bulk is often a disadvantage, or even composite brackets have been designed such as "Gestenco Phantom" for the more visible lower arch. However the critical factor common to all of the manufactured bracket systems is their placement in the mouth and for this a good indirect bonding system is paramount.

Another way of increasing the popularity of Lingual Orthodontics is to reduce the high laboratory costs that have been traditionally involved in Indirect Bonding. The work was specialized and slow, therefore very expensive, but with recent developments with regards to NEW instruments available, this is changing.

Better still, can we at the same time increase precision in bracket placement, which has for a long time been a demand of many top practitioners', see the quotes below?

In the book 'Lingual Orthodontics', by Rafi Romano, Robert Baker JR., DMD, wrote:

"Lingual Orthodontics in the 21st century will involve several new innovations, including new players in the treatment field, new appliances and auxiliaries, and enhanced laboratory techniques, design and communication."

He also says regarding individual treatment plans...

"To achieve such accuracy, a Lingual Orthodontist must have intimate knowledge of individual bracket positions over the center of resistance of each specific tooth."

Referring to the 'Lingual News', one of the opening statements on its website is ***"Precise placement of brackets is an essential part of every orthodontic treatment, and especially lingual orthodontic treatment."***

Now there are instruments to do just that ...as quoted by the "eELABORATE" magazine, ***"In 2004 a real break though in lingual Orthodontics arrived. The Torque Angulation Device..."***

Measuring Torque and Angulation to 0.1 of a degree, this instrument can survey malocclusion models for individual tooth positions with regards to the HOL (Horizontal Occlusal Line) as defined by Andrews. The read out is digital to reduce human error and ease of use was one of the main points when the designs were considered.

It can also be used by the laboratory for setting the required torque and angulation into the teeth to be bonding before placing the brackets with regards to height and thickness using the Bracket Positioning Device, which has an accuracy of 0,01mm!

Or, for constructing set-up models with precise inclination and angulation settings. Achieving accuracy like this can only point in one direction...reduced chair time, therefore reduced costs and happier patients.

By using highly precise instruments like the T.A.D and B.P.D, top quality bonding materials such as 'Transbond' from 3M Unitek and an improved transfer tray system "Precise Indirect Bonding Systems" is gaining respect all over the globe for having a far more accurate Indirect Bonding for both lingual and labial Orthodontics.

Ask Ormco who make the most popular 7th generation Kurz and the STb Light brackets, what instruments to use in placing their brackets and they will probably reply the TAD and BPD.

Most cases that are treated with labial orthodontics can be effectively treated by the lingual technique and sometimes with quicker results. Also the lingual technique provides invisible treatment giving the patient a big confidence boost compared with the labial patients who decide to go through a year or more with braces fitted on the outside of their teeth. Reduced visible scarring of the enamel is another advantage over the labial system.

With the introduction of instruments such as the TAD and BPD and also CAD/CAM technology, this has meant that precision and speed of technique have increased many times. These instruments can be used for both lingual and labial and provide reliable and repeatable results for the orthodontist. Now for the first time doctors using the TAD can survey their malocclusion models before determining their corrective prescription.

Today there are more and more doctors using the lingual technique, some such as Dr Fillion (Paris/London) have been applying the lingual technique for many years and achieving excellent results. Worldwide there are doctors such as Takemoto / Scuzzo / Hiro and Gorman, who are available to lecture in the fine points and maybe quite soon the majority of Orthodontists will be wondering why they have not been providing the lingual technique as an option for their patients.

For more information about the 'Lingual technique' or these two new additions to the world of Orthodontics, please email: petersheff@hotmail.com

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