



Presentation of a new Endodontic Obturation System

Background

For more than 20 years the socalled endodontic obturator (EO) has been used to fill root canals. The very concept of covering a central core with thermoplastic gutta percha (GP) and inserting this into the root canal after heating the GP is as simple as it is brilliant. There is no other way a dentist can as easily obtain a quality apical seal. The solid central core will ensure you get the thermoplastic GP all the way to the apex, while creating lateral pressure on the soft, viscous GP causing it to flow into lateral canals, resorptions etc.

Originally the EO's were made of stainless steel files covered with GP. The use of stainless steel – and later titanium - as the core material for the EO was very technique sensitive when the dentist wanted to create space for a post. Plastic is a biocompatible material already widely used in medicine for implants, so it was only natural that EO's made of plastic were introduced in 1990. Plastic cores offered the advantage of being relatively easy to remove to create post space.

During the 1990's, the concept of plastic EO's was further refined. The product Soft-Core Endodontic Obturator, offering a removable handle with a metal insertion pin that left the coronal 1/3 of the plastic core hollow, challenged the original concept of the Thermafil obturator. This design gave better tactile sensation when inserting the obturator into the canal and provided a narrower plastic core with a pilot hole for the post bur. All of

which facilitates post space cre-

However, one of the drawbacks of existing EO-systems is that they are inserted into the root canal while holding the handle with two fingers - which can be difficult when filling molars. Also, the handle from the first canal is often in your way when filling additional canals. Sure, the shaft can be cut but displacing the core is a risk if the gutta percha is not hard, and that takes about 4 minutes.

Even a good concept can be improved!

Introduction of a third **Endodontic Obturator** System

The new system – called One-Step Obturator (OSO) - is, of course, based on the same basic principle of having a central core of plastic covered with thermoplastic GP. However the OSO is designed to accommodate the practical inconveniences experienced with the existing obturator systems.



The core of the OSO consists of a conical part and a cylindrical part. The conical part is 16 mm long and is uniformly tapered. The cylindrical portion contains indentations along the shaft to ensure accurate grip and easy break off.

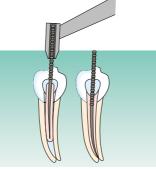


The One-Step Obturator does not have a handle. You use OSO Tweezers when working with the obturator. Simply lock the head of the Tweezers on the shaft so that the edge of the head of the Tweezers serves as an indicator for the working length (WL).

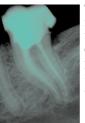


The OSO Tweezers is easily placed in the OSO Oven. The oven top has 10 slots with numbers printed on them. Each number refers to an obturator size. The OSO Tweezers should be placed in the slot corresponding to the chosen obturator.

Remove the Tweezers from the oven after heating and place directly into the root canal to the predetermined WL. The GP will be transported throughout the canal, as well as filling the lateral canals, with a single obturator. The result is a 3-dimensional fill with an excellent apical seal.



Release the grip of the shaft After
The packaging makes it easy for 60 seconds the shaft may be broken off, again using the OSO Tweezers, but it is recommended to wait for your confirming x-ray



The root canal filling is now finalized. Cover with composite or glassionomer as usual.

Practical tips!

In teeth with more than one canal, always fill the shortest canal first, and place paper points in the other canals while filling the first and second. In that way you avoid blocking the orifice of the other canals with any excess gutta percha.

If you know in advance that you will be placing a post, make the post preparation before you fill with the obturator. It will give you more working space. The plastic core and gutta percha is easily removed with a hot instrument or a special friction producing, non-cutting bur (CoreRemover)

Conclusion:

The One-Step Obturation System is easy to work with. The concept is logical. Using the Tweezers instead of a handle feels more natural, and makes it a lot easier to fill molars. The two angled Tweezers make any canal opening accessible.

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> you to properly grasp the obturator shaft with the Tweezers. The Tweezers is also very useful when breaking off the shaft. Compared to other warm gutta percha techniques and lateral condensation, you will readily see that the One-Step Obturation system, due to its simplicity, is also a time saver. Finally, the price of 2 euro per canal/obturator makes it a realistic option for anyone to use in all cases.





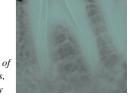
CASE 2 X-ray

courtesy of

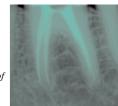
Dr. Tulus,

Germany

courtesy of Dr. Tulus. Germany



courtesy of Dr. Tulus. Germany



Practical info:

One-Step is packed in 6-packs or 30-packs of the same size. There are two Tweezers, 45° & 90° angled head. The One-Step Introduction Kit contains:

1 x One-Step Oven 2 x Tweezers (45° & 90°) 60 pcs. One-Step Obturators: 2 x 6-pack #20, #25, #30 1 x 6-pack #35, #40, #50, #60 1 x asst. 6-pack of Core Remover (25mm + 30mm)1 x asst. 6-pack of Size Verifiers

The One-Step Obturation System is available through: For German distribution



LOSER & Co. Stand 14.1 KJ50-51 For International distribution: Soft-Core Dental Production Stand 14.2 N41

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