Würzburg Post

Positive locking post and core

Features

- Spreadable post uses positive locking instead of bonding to create a stronger joint
- Wider indications: teeth with strongly curved root shapes can be used
- Safe to use
- Reduced risk of leakage and perforation
- Time-saving and simple application
- Increased stability
- One-piece construction
- The Würzburg Post is available in two different versions:

  Post and core for fixed partial dentures. This core offers a preformed 6º conical abutment which can be individualized in analogy to the classic core buildup.

  Ball-end for reliable attachment to removable dentures utilizing the conventional 2.25 mm ball-ended abutment. It is used in connection with preferred construction elements, offering angular compensation and short leverage.

Hager & Meisinger GmbH
Hansemannstraße 10, 41468 Neuss, Germany
■ www.meisinger.de ■ +49 213 120 120
Select 000

Positive locking post

Novel concept for restoring teeth with severely decayed clinical crowns.

By Prof. Dr. Dipl.-Ing. E.J. Richter and Dr. Dr. K. Rottner, and J. Boldt

Conventional post and core restorations are an effective method for repairing dentures. However, they often present a risk of leakage by loading and subsequent failure of the luting agent. Hager & Meisinger and the Department of Prosthodontics at Würzburg University,Germany, have developed a new concept for restoring teeth with badly decayed crowns. The Würzburg Post system utilizes positive locking through a specifically shaped spreadable post, instead of relying on frictional or chemical bonding for attaching the post to dentine.

The integrated luting agent is only used to provide a sealant against bacterial penetration and to compensate for minor incongruencies. The post is designed to prevent stress levels from reaching critical limits on the remaining dental substance. It also reduces the risk of leakage from loading and subsequent failure of the luting agent, a common occurrence in conventional post and core restorations. A simple guide to using the Würzburg Post is set out below.

Preparation

1. After endodontic treatment, use a coarse bur to plane the remaining coronal dentine and remove rough edges (Figure 1).

2. Mark the centre with a suitable bur, ensuring that the majority of the concentric rim is placed within the boundaries of the dentine (Figure 2).

3. Use the Würzburg Post pilot bur to simultaneously create the cylindrical centre bore and the angular groove at operating revs of 40000 rpm with spray cooling. Select the ideal angulation for the post depending on the desired restoration (Figure 3).

4. The cylindrical pilot bore is expanded to yield an inversely conical cavity. Place the bur head into the centre bore and insert the drive (Figure 4).

5. Drill at a speed of 10000 rpm, slowly depressing the drive into the bur head with gentle pressure until the end position is reached (Figure 5). The bur head can be safely removed after the drive has been extracted: it is crucial to not pull back the undercut bur in one piece as this would destroy the cavity shape.

Insertion

6. Condition cavity and post in accordance to directions specified by the bonding composite manufacturer of choice.

FIGURE 1 Use a coarse bur to plane remaining coronal dentine and remove rough edges.

FIGURE 2 Mark the centre with a suitable bur.

FIGURE 3 Select the ideal angulation for the post.

FIGURE 4 Place the bur head into the centre bore and insert the drive.

FIGURE 5 Drill at a speed of 10000 rpm.

FIGURE 6 Position the post in the cavity until secure and insert the spreader.

FIGURE 7 Depress the spreader firmly until the groove is flush with the abutment.

FIGURE 8
Remove excess portion of the spreader with the flame-shaped diamond bur.

FIGURE 9
After fitting and finishing, an x-ray is recommended .

7. After application to cavity and post, place the post into the cavity until securely seated and immediately insert the spreader (Figure 6).

8. Depress the spreader firmly until the groove is flush with the abutment (lower groove for ball-end, upper groove for post and core) (Figure 7).

9. After removal of excess bonding agent, cut off the excess portion of the spreader using the supplied flame-shaped diamond bur (Figure 8). Exposed dentine should be sealed off with a preferred filling composite. For fixed restorations, the post and core can now be prepared to a desired shape. After fitting and finishing the Würzburg Post, an x-ray is recommended.