

Pulpdent Root Canal Sealer & The Pulpdent Pressure Syringe

- 40 Years of Clinical Success
- Fill the Apex First
- Makes Endo Easy



Pulpdent Root Canal Sealer & The Pulpdent Pressure Syringe

Pulpdent Root Canal Sealer and the Pulpdent Pressure syringe offer the simplest and most accurate method of filling the apical portion of the root canal and completely obturating and hermetically sealing the entire root canal system.

Pulpdent Root Canal Sealer

Indicated for Primary and Permanent Teeth

- Primary teeth: Use without gutta percha
- Permanent teeth: Use with or without gutta percha

Pulpdent Root Canal Sealer

Special Features

- Tissue compatible
- Bacteriostatic
- Radiopaque
- Does not shrink upon setting
- Provides positive apical seal
- Resorbs with the roots of deciduous teeth
- Permanent filling material
- Long working time – slow setting

Pulpdent Root Canal Sealer

Tissue Compatible

Slight apical extrusions often resorb within 6-12 months



Figure L1

Shows obturation of second bicuspid and distal root of hemisected first molar with Pulpdent Root Canal Sealer. Note periapical lesion and slight extrusion of sealer beyond the apex of the bicuspid.

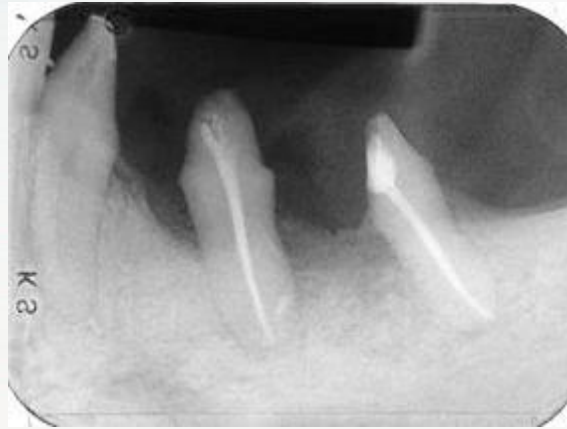


Figure L2

Radiograph five months later shows resorption of extrusion and healing of periapical lesion.



Figure L3

Radiograph 4½ years later shows periapical healing, bone fill and bridge in place.

Pulpdent Root Canal Sealer

- **Bacteriostatic**

Eugenol and zinc have long been known for their antibacterial properties.

Pulpdent Root Canal Sealer

- **Resorbs with the roots of deciduous teeth**

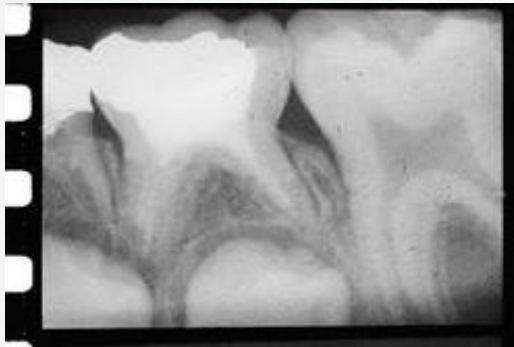


Figure J1

Radiograph shows primary molar filled with Pulpdent Root Canal Sealer using the Pressure Syringe technique.

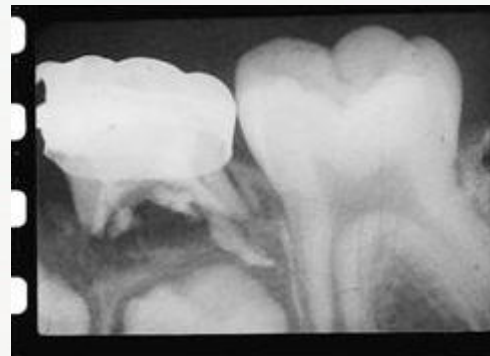


Figure J2

Radiograph shows bicuspid erupting and Pulpdent Root Canal Sealer resorbing with the roots of the primary molar.

Pulpdent Root Canal Sealer

- Permanent filling material

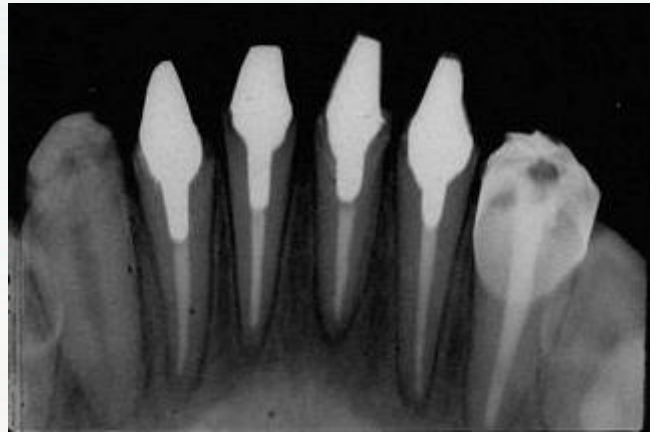


Figure K1

Pulpdent Root Canal Sealer can be used with or without gutta percha. Radiograph shows five permanent lower anterior teeth completely filled with sealer only.

Pulpdent Root Canal Sealer

- All Natural Ingredients

POWDER: zinc oxide, calcium phosphate, zinc stearate, barium sulfate.

LIQUID: Eugenol, Canada Balsam

Pulpdent Root Canal Sealer & The Pulpdent Pressure Syringe

- **Fill the Apex First**

Using the Pressure Syringe Technique, the practitioner fills the apex first and then back fills the remaining root canal space.

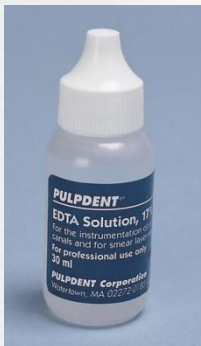
Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

A Simple Technique

Using good endodontic practices, file and ream the canal and shape it to receive the filling material.

Pulpdent **EDTA 17% Solution**, **File-Rite** EDTA semi-gel, and **Prep-Rite RC** viscous EDTA gel soften the canal walls and assist with instrumentation of the canal.

- **EDTA 17% Solution is dispensed into the canal with a syringe or pipette.**
- **File-Rite contains a lubricant to prevent binding or breaking of instruments and is packaged in a syringe for direct dispensing through 30-gauge needles.**
- **Prep-Rite RC contains a lubricant and peroxide and can be picked up on the file using the traditional technique.**



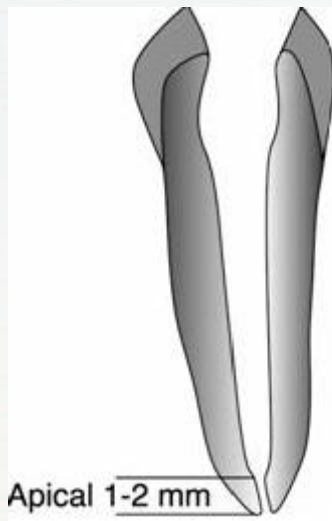
Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

Determine Root Length



Using good endodontic procedures, take a diagnostic radiograph with a radiographic stop to determine the root length.

Prepare Canal



Open the root canal to a size 35-40 file to a distance 1-2 mm from apex. Taper the canal walls to a funnel shape. Prepare the apical 1-2 mm with parallel walls. Make sure the apex is patent. For completely formed teeth, it is best not to open the apex beyond a size 20-30 file.

Select Pressure Syringe Needle



Select a Pressure syringe needle, place a radiopaque stop on it, and place the needle in the canal so that it wedges within 1-2 mm from the apex. A 30-gauge needle corresponds to a size 20 file at the apical 1-2 mm. Place the needle back into the color plastic sheath.

Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

Measure Sealer Powder and Liquid



Invert powder bottle to fluff the powder. Maintaining a 1:1 ratio, dispense a minimum of 3 scoops of powder and 3 drops of liquid onto a mixing pad. For accurate measurements, level the scoop of powder with a spatula, but do not pack the powder into the scoop.

Mix Sealer



Using metal spatula, mix sealer to a thick but creamy consistency. The sealer should be pliable enough to form a homogeneous mass.

Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

Fill Needle Hub with Sealer



Remove the white cap from the pressure syringe needle and completely fill the hub of the needle with the thick mix of Pulpdent Root Canal Sealer. This can be done by using a spatula or by placing the needle hub over the sealer and pressing it against the mixing pad. Pack the sealer tightly into the needle hub, eliminating air pockets.

Thread Needle onto Pressure Syringe



Separate the the barrel and screw plunger. Thread the needle onto the Pressure Syringe barrel and hand tighten using the color plastic sheath as a holder. This transfers the sealer into the syringe barrel. To place additional sealer in the Pressure Syringe, unscrew the Needle, fill the hub again, and place it back on the Pressure Syringe.

Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

Insert Screw Plunger



Slip the handle onto the barrel so that it bends away from the patient's mouth, and insert the screw plunger into the Pressure syringe barrel.

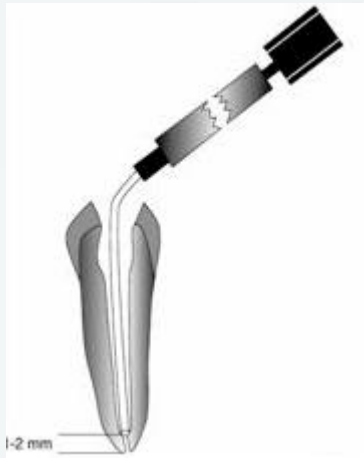
Start Flow of Sealer



Remove the color plastic sheath from the Pressure Syringe needle. Turn the screw plunger clockwise until sealer begins to extrude at the end of the needle.

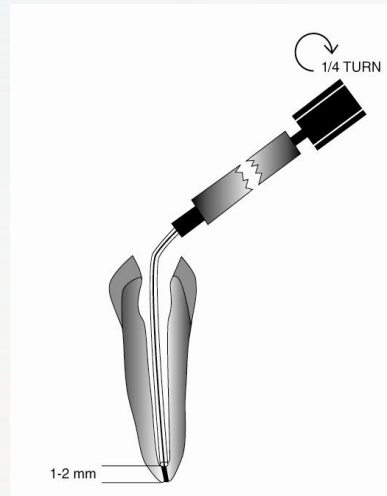
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Insert Needle into Canal



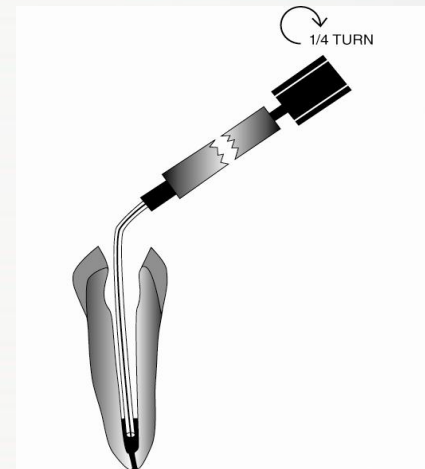
Using the root canal stop as your guide, place the needle into the root canal 1-2 mm from apex. It should wedge in the apical portion of the canal. The needle can be bent for easy access, but do not crimp the needle.

Seal the Apex First



The screw plunger knob has four lines 90° apart indicating 1/4 turn. Turn the screw plunger 1/4 turn clockwise and wait 5 seconds. This fills the 1-2 mm at the apex. A radiograph can be taken at this time to check for a proper apical seal.

Withdraw Needle Slightly



Before filling the remaining root canal space, withdraw the needle slightly to break contact with the canal walls. This ensures that additional sealer will not be forced through the apex.

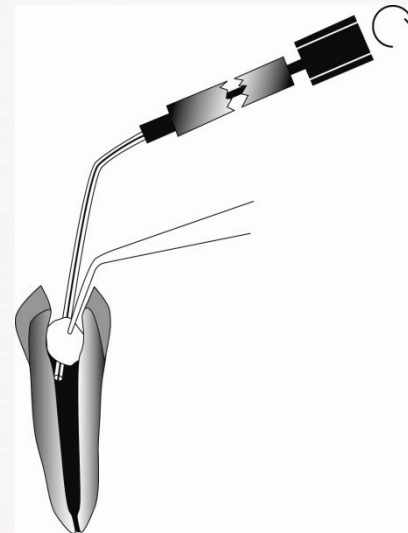
Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

Fill the Canal



Continue to turn the screw plunger slowly until sealer flows into the access cavity.

Withdraw Needle Completely



Hold a cotton pellet in the access cavity against the side of the needle, and slowly withdraw the needle while continuing to turn the screw plunger. This will fill the space previously occupied by the needle. Use an instrument to force the cotton pellet into the canal to create additional vertical condensation.

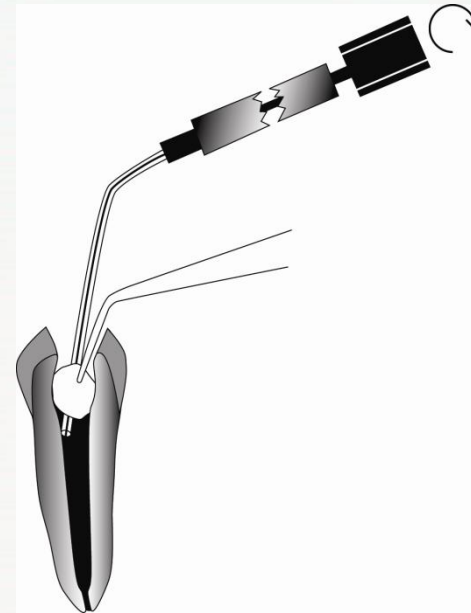
Pulpdent Root Canal Sealer & the Pulpdent Pressure Syringe

Fill the Canal



Continue to turn the screw plunger slowly.

Withdraw Needle Completely



Hold cotton pellet in the access cavity against the side of the needle, and slowly withdraw the needle while continuing to turn the screw plunger. This will fill the space previously occupied by the needle. Use an instrument to force the cotton pellet into the canal to create additional vertical condensation.

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Empty the Syringe



Remove and discard the needle. Remove excess sealer from the Pressure Syringe by turning the screw plunger clockwise as far as it will go.

Clean the Syringe



Immediately after use, separate the screw plunger counterclockwise. Use Wonder Orange Cleaning Solution to clean the screw plunger and barrel. A pipe cleaner can be used to help clean the inside of the barrel. When the Pressure Syringe is clean, the screw plunger should spin freely in the barrel.

Case Study 1

Pressure Syringe Technique

This is a case of extreme neglect resulting in a large carious lesion on the labial surface of a maxillary central incisor. The pulp was involved and the tooth required a root canal.

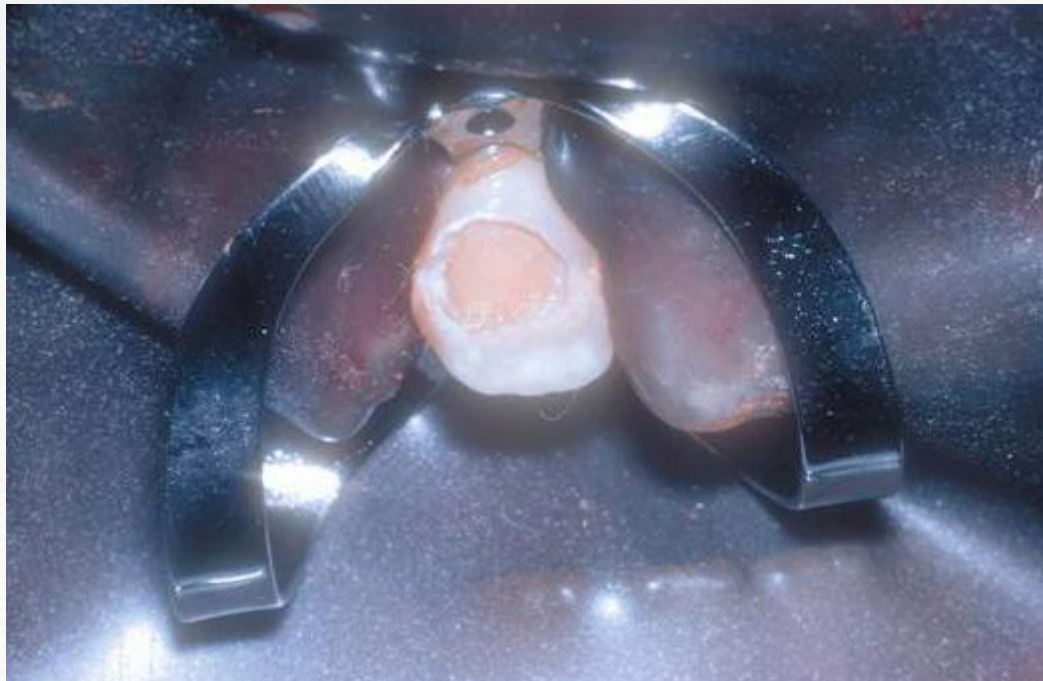


Figure 1

Case Study 1

Pressure Syringe Technique



Figure 2

Shows pulpal exposure upon removal of carious dentin.



Figure 3

Shows diagnostic file in place.

Case Study 1

Pressure Syringe Technique

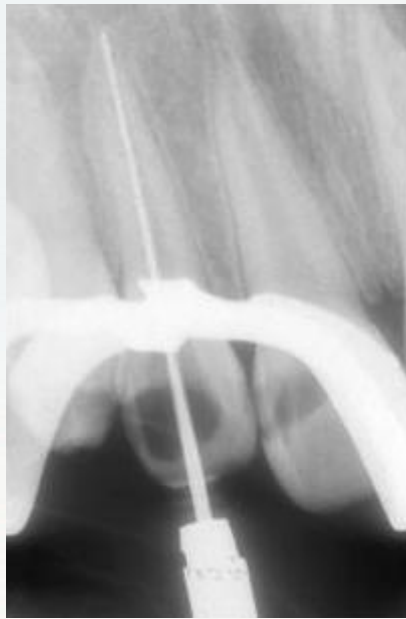


Figure 4

Diagnostic radiograph

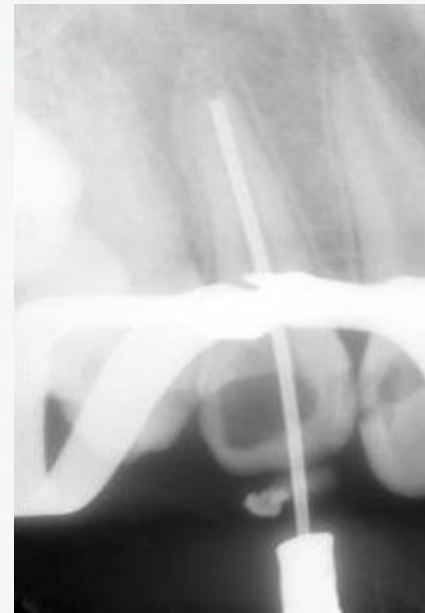


Figure 5

Shows Pressure Syringe
needle 2 mm from apex.

Case Study 1

Pressure Syringe Technique



Figure 6

The Pressure Syringe is in place.



Figure 7

One-quarter turn of the screw plunger fills the apex.

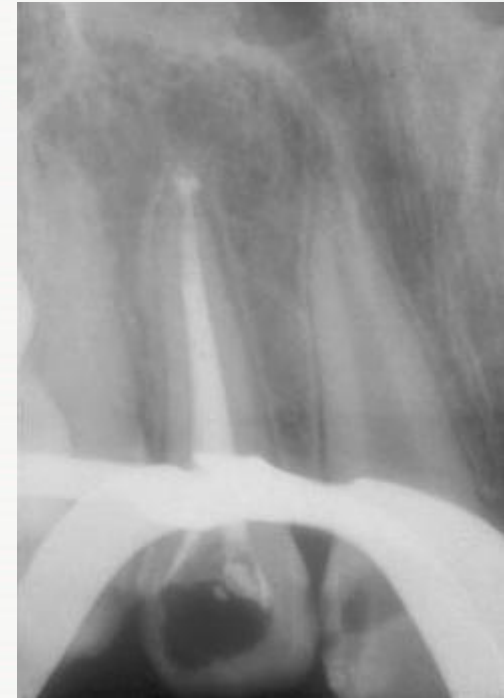


Figure 8

Shows total obturation of the root canal.

Case Study 1

Pressure Syringe Technique

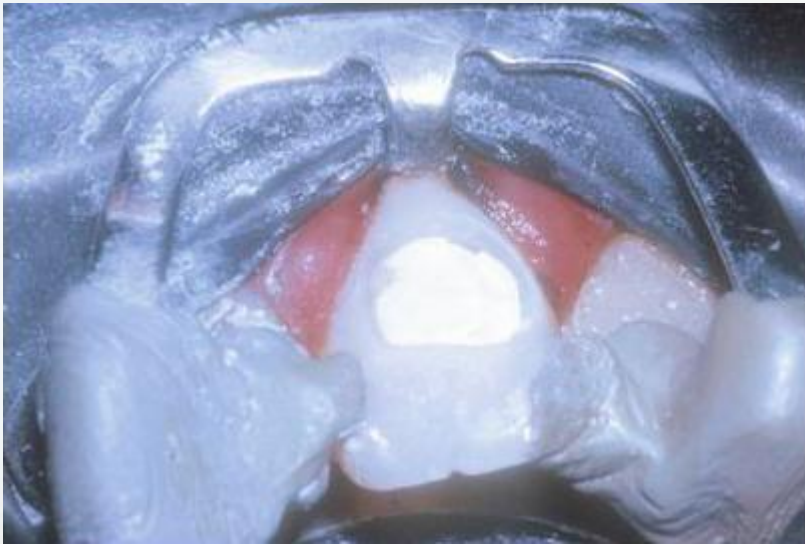


Figure 9

Shows cement base in place



Figure 10

Final Restoration

Case Study 2

Traumatic Injury and One-Visit Root Canal Therapy

A ten year old girl fell off her bicycle and broke her maxillary left central incisor (#9), exposing the pulp (Figure 1).



Figure 1

In the future, this tooth will require a post and core build up and a crown. But this child is only 10 years old. The teeth are still erupting and the gingival tissue will recede. If possible, it is best to wait 6 or 7 more years before making a crown.

Case Study 2

Traumatic Injury and One-Visit Root Canal Therapy

Root Canal therapy was performed and the tooth was obturated with Pulpdent Root Canal Sealer using the Pressure Syringe technique. At the same visit, the tooth was restored with composite resin.



Figure 2

Case Study 2

Traumatic Injury and One-Visit Root Canal Therapy



Figure 3

The Patient went home the same day with a completed restoration.