

# PRESSURE SYRINGE TECHNIQUE

## A CASE STUDY

### Charlie

*It is unusual to encounter a patient with a large carious lesion on the labial surface of a maxillary central incisor, so we were surprised when Charlie came to the clinic suffering from this extreme condition (CC1), although we were not surprised he had a tooth ache. There are those who ignore their oral hygiene until they are in pain, and decay does not necessarily cause discomfort until there is pulpal involvement.*



Figure CC1  
Shows large carious lesion.

*This is one reason caries can progress so far before the patient sees a dentist.*



Figure CC2  
Shows pulpal exposure upon removal of carious dentin.

Charlie's case presented an ideal situation for demonstrating the Pressure Syringe technique to our postdoctoral students, so we documented it with photos and radiographs for teaching purposes.

After removing the caries with a spoon excavator, we could see that Charlie had a pulpal exposure that would require root canal therapy (CC2). Considering the history of neglect, and not knowing if Charlie would keep future appointments, the decision was made to complete the root canal treatment in one visit.

Often, the location of a carious lesion determines the approach to the root canal. In an anterior tooth, we usually take a palatal approach, but in order to



Figure CC3  
Shows diagnostic file in place.



Figure CC4  
Diagnostic radiograph.



Figure CC5  
Shows Pressure Syringe needle 2 mm from apex.



Figure CC6  
The Pressure Syringe is in place.



Figure CC7  
One-quarter turn of the screw plunger fills the apex.

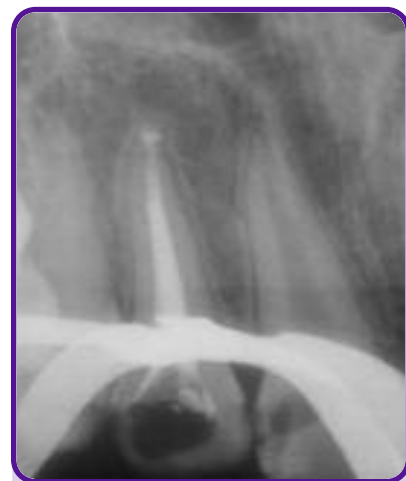


Figure CC8  
Shows total obturation of the root canal.

preserve as much of Charlie's tooth structure as possible, we chose to gain access to the root canal from the labial aspect. *Figure CC3* shows the file in place, and *Figure CC4* shows the diagnostic radiograph.

*Figure CC5* shows the Pressure Syringe needle in the canal 2 mm from the apex.

*Figure CC6* shows the Pressure Syringe in place, ready to fill the canal.

One of the great advantages of the Pressure Syringe is that it enables the clinician to fill the apex first. *Figure CC7* shows the fill at the apex following one-quarter turn of the screw plunger.

The procedure for obturating canals with the Pressure Syringe takes only a few minutes. *Figure CC8* shows the root canal completely filled with Pulpdent Root Canal Sealer alone.



Figure CC9  
Shows cement base in place.



Figure CC10  
Final restoration.

*Figure CC9* shows the placement of the cement base prior to completion of the restoration.

*Figure CC10* shows the completed restoration and the smile of a happy patient, all in one short visit.