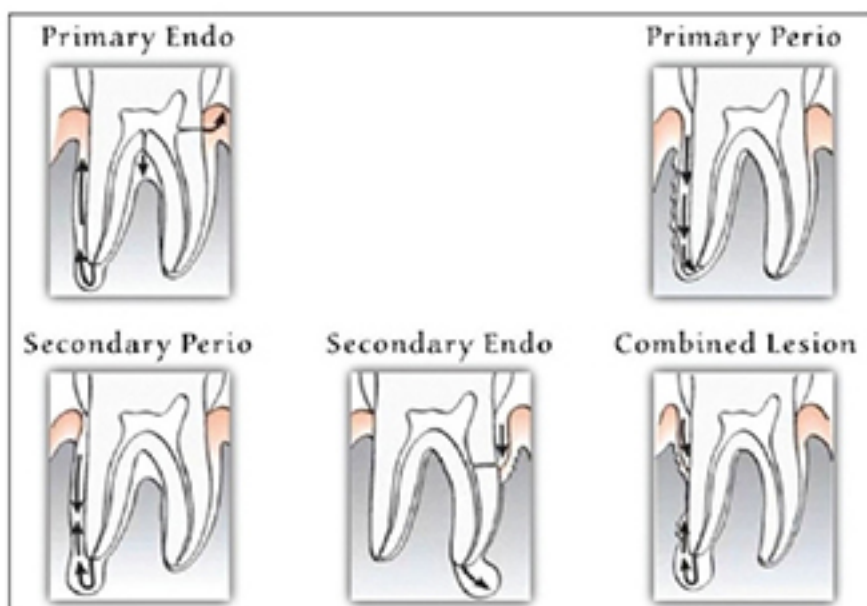


## THERE ARE EIGHT DIAGNOSTIC CATEGORIES OF PERIODONTAL DISEASE

It is important to establish an accurate diagnosis in order to provide a successful treatment. Today we will explore PERIODONTITIS ASSOCIATED WITH ENDODONTIC LESIONS. The periodontium is a continuous unit; pathologic involvement of the peri-apical area extends into the marginal area, and vice versa.



**PRIMARY ENDODONTIC LESION:** An acute exacerbation of a chronic apical lesion on a tooth with a necrotic pulp may drain coronally through the periodontal ligament into the gingival sulcus. This condition may clinically mimic the presence of a periodontal abscess. In reality, however, it would be a sinus tract originating from the pulp that opens into the periodontal ligament. Primary endodontic lesions usually heal following root canal therapy.

**PRIMARY PERIODONTAL LESION:** These lesions are caused primarily by periodontal pathogens. In this process, chronic periodontitis progresses apically along the root surface. In most cases, pulpal tests indicate a clinically normal pulpal reaction. There is frequently an accumulation of plaque and calculus and the presence of deep pockets may be detected.

### COMBINED DISEASES:

**Primary endodontic lesion with secondary periodontal involvement:** If a primary endodontic lesion remains untreated, it may become secondarily involved with periodontal breakdown. Plaque accumulation at the gingival margin of the sinus tract leads to plaque induced periodontitis in this area. When plaque and calculus are detected, the treatment and prognosis of the teeth are different from those of the teeth involved with only endodontic disease. The tooth now requires **both** endodontic and periodontal treatment. Primary endodontic lesion with secondary periodontal involvement may also occur as a result of root perforation during root canal treatment, or where pins and posts may have been misplaced during restoration of the crown. Symptoms may be acute, with periodontal abscess formation associated with pain, swelling, pus or exudates, pocket formation, and tooth mobility. A more chronic response may occur without pain, and involves the sudden appearance of a pocket with bleeding on probing or exudation of pus. Root fractures may also present as primary endodontic lesions with secondary periodontal involvement. These typically occur in root canal treated teeth, often with posts and crowns. The signs may range from a local deepening of periodontal pocket to a more acute periodontal abscess formation.

**Primary periodontal disease with secondary endodontic involvement:** The apical progression of a periodontal pocket may continue until the apical tissues are involved. In this case, the pulp may become necrotic as a result of infection entering through lateral canals or the apical foramen. If the blood supply circulating through the apex is intact, the pulp has good prospects for survival. It has been reported that pulpal changes resulting from periodontal disease are more likely to occur when the apical foramen is involved. In these cases, bacteria originating from the periodontal pocket are the most likely source of root canal infection. The treatment of periodontal disease can also lead to secondary endodontic involvement. Lateral canals and dentinal tubules may be opened to the oral environment by scaling and root planning or surgical flap procedures. It is possible for a blood vessel within a lateral canal to be severed by a curette and for the microorganisms to be pushed into the area during treatment, resulting in pulp inflammation and necrosis.

**True combined lesion:** True combined endodontic periodontal disease occurs less frequently than other endodontic-periodontal problems. It is formed when an endodontic lesion progressing coronally joins an infected periodontal pocket progressing apically. The degree of attachment loss in this type of lesion is invariably large and the prognosis.

This case report is provided by **PERIODONTICS OF THE DESERT: Peter Warshawsky, D.D.S. and Eric Driver, D.D.S.;** Board Certified Periodontists. It is meant as a way of sharing current periodontal information with the dental community. Questions and comments are welcomed by calling 674-4410.\* All cases presented are actual patient's of Drs. Warshawsky of Driver.