

NTEA ENDO FAX

Compliments of North Texas Endodontic Associates

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**The office of North Texas Endodontic Associates will be moving to our new location at Coit and Spring Creek in late February. We will send information containing our new address as soon as our moving date is confirmed.*

Review of Pulpal Pain Diagnosis

Pain symptoms often challenge the clinician's diagnostic abilities. Generally, pain is conceptualized by two components: *perception* of pain, influenced by anesthesia, and *reaction* to pain, such as fear and depression, which is influenced by drugs and emotion. These emotional states vary from person to person and can exaggerate the perception of pain. Frequently it is patient confusion in perception of their pain that lead to difficulties in diagnosis.

In order to accurately diagnose the etiology of pain, the clinician must first understand that pain can be of odontogenic or systemic origin (non-odontogenic). Evaluation of the dental history, including a history of pain in the same tooth before the present pain experience, the nature of response to various stimulus and the longevity of the pain are all important consideration in establishing a correct diagnosis. Accurate assessment of a patient history can frequently establish a defined differential diagnostic strategy prior to the clinical examination. A through clinical exam with the differential diagnostic strategy in mind can expedite the process. Typically, pain of odontogenic origin involves dentinal or pulpal tissues and their supporting structure. The patient will report a history of pain to cold and /or hot stimulus that lingers or a specific response to chewing. The cold and /or hot type of pain is frequently reproduced by a cold or electric pulp test. The response should be quick, sharp and similar to that which the patient has reported. The character of pain, such as pricking produced by the electric pulp tester, is due to stimulation of the fast conducting A-delta nerve fibers. Whereas the burning, aching type of pain results from stimulation of the unmyelinated slow conducting C-fibers.

Pain of a systemic or non-odontogenic origin such as atypical facial neuralgia usually does not follow the path of the fifth nerve distribution. Physicians frequently refer these patients to dentists for consultation. The pain usually occurs bilaterally and often localizes itself in the maxillary molar region. This can create diagnostic dilemma when deep restorations are present. This disorder is present in a 4:1 ratio in females and occurs mainly during or after menopause. The pain symptoms seem to involve the C-fibers, representative of the dull, crawling, continuous pain and associated burning sensation. The pain comes and goes spontaneously and cannot be remedied by endodontic therapy or extraction. The non-odontogenic pain group represented by TMD, pericoronitis, mouth ulcers, and sialolithiasis rarely present a difficulty in differential diagnosis.

Accurate diagnosis is the first step to proper pain management. It is imperative that the clinician distinguishes odontogenic from non-odontogenic pain before initiating any type of definitive treatment.

Endo Fax is produced by North Texas Endodontic Associates, Drs. Ron Wright, David Witherspoon, Gary Harris and Joel Small, and is intended to aid the practitioner in the management of endodontic conditions. Practitioners must always use their own best professional judgment. We neither expressly or implicitly warrant any positive results associated with this material.