

Systematic Endodontic Diagnosis

The following outline provides a quick review of the steps taken in endodontic diagnosis:

1. **Chief Complaint** – record symptoms or problems expressed by the patient in their own words
2. **Health History**
 - a. Medical history – ensure up to date
 - b. Dental history
 - i. Present and past dental treatment
 - ii. May provide subtle clinical findings or identify source of patient's complaint
 - iii. Attitudes towards dental health and treatment
 - c. Present signs and symptoms
3. **Pain History**
 - a. Location
 - b. Intensity and nature of the pain
 - i. Does it disrupt the patient's lifestyle or wake them at night?
 - ii. Mild, moderate or severe?
 - iii. Is the pain sharp or dull? Is it throbbing and continuous?
 - c. Duration
 - i. How long have you had the pain/when did the pain begin?
 - ii. Does the pain linger after the stimulus is removed?
 - iii. Once initiated how long does the pain last?
 - iv. Does the time of day affect when the pain is present?
 - d. Stimulus – what initiates the pain?
 - e. Relief – medications or actions (such as sipping ice water) taken to relieve pain
 - f. Spontaneity – pain occurring without stimulus
4. **Clinical Examination**
 - a. Extraoral Examination
 - i. General appearance, skin tone and facial asymmetry
 - ii. Note any swelling, redness, sinus tracts, tender or enlarged lymph nodes or tenderness to muscles of mastication or region of TMJ
 - b. Soft Tissue – examine for discolouration, inflammation, ulceration, swelling and sinus tract formation
 - c. Dentition – note caries, large restorations, discolouration, cracks, abrasion, attrition, erosion, tooth morphology or other abnormalities
 - d. Periodontal Examination
 - e. Clinical Tests
 - i. Percussion
 - ii. Palpation
 - iii. Mobility
 - iv. Testing for cracks – FracFinder, methylene blue, transillumination
 - v. Pulp Testing – always include stimuli similar to those that provoke the patient's chief complaint
 1. CO₂ or cold spray
 2. Electric pulp testing
 3. Isolation testing – place rubber dam to isolate tooth and apply hot and cold water
5. **Radiographic Examination**
 - a. Pulpal
 - i. Pulp canal calcification, this does not necessarily indicate the need for endodontic treatment
 - ii. Pulp stones
 - iii. Resorption
 - iv. Complex anatomy
 - b. Periradicular
 - i. Radiolucencies of pulpal origin tend to be localised to the canal terminus
6. **Correlation of the history, clinical and radiographic findings for a definitive diagnosis** – Findings may not always be consistent and the process of arriving at a final diagnosis depends heavily on the practitioner's critical evaluation of the findings
7. **Treatment plan** – In addition to a definitive diagnosis and its indicated treatment/s, the practitioner must take into account the patient's overall needs, indications for endodontic treatment and assess case difficulty.