Methods of Determining Working Length

Radiographic methods

Ingle's technique

Best's method

Bregman's method

Bramante's technique

Grossman's method

Weine's method

Kuttler's method

X-ray grid method

Xeroradiography

Direct digital radiography

Electronic apex locators

Resistance-based electronic apex locator

Low-frequency apex locator

High-frequency apex locator

Voltage gradient apex locator

Dual-frequency apex locator

Multiple-frequency apex locator

Non-radiographic methods

Tactile sense

Apical periodontal sensitivity

Paper point method

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