

Calculus Detection Calibrator

Background and Instructions for Use

This educational aid has been designed by a dental hygiene educator and a mechanical engineer for dental professionals. Its purpose is to help develop the tactile sensitivity required to detect subgingival cementum and calculus textures.

A version of this device is currently being used by the Central Regional Dental Testing Service (CRDTS) for examiner calibration exercises.

Each texture pad represents one of the possible subgingival textures that may be felt when using a dental explorer.

Pad A – Heavy calculus

Pad B – Cementum – hard surface with a very slight texture

Pad C – Moderate calculus

Pad D – Light or grainy calculus – this texture pad also includes two areas of **burnished calculus**

Burnished calculus - best described as “**too smooth to be cementum**”, which has a very slight texture. Burnished calculus occurs when the outer layers of calculus are removed, leaving the base of the deposit still attached to the tooth.



TURN OVER for Instructions for Use

Instructions for Use:

1. Hold the 11/12 explorer with a very light Modified Pen Grasp- as you would when exploring in the mouth.
 - **Position thumb and index finger** across from each other on the handle with a space between for rolling the instrument handle.
 - Rest **pad or side** of middle finger **on the shank** of the explorer
Middle finger position is very important when developing the tactile sensitivity necessary to accurately interpret the various subgingival textures that can be present on the root of the tooth.
2. **Fulcrum on top of box; then position your explorer inside the opening on the different texture pads.**
3. Slide the **side of tip (not the point)** and the **end 1/3** of the explorer **across each of the texture pads** using the **exploratory stroke**.
 - Apply the same amount of **light pressure** as you feel each pad. Pay close attention to the sensations felt in the middle finger pad as the explorer passes over the textures. Each texture pad creates a different level of vibration in the shank of the instrument.

Caution: Explorer is sharp!