

Horizontal strokes

There are **three basic strokes** used during instrumentation. Any of these basic strokes may be activated by a pull or a push motion in a vertical, oblique, or horizontal direction. Vertical and oblique strokes are used the most frequently. Horizontal strokes are used selectively on line angles or deep pockets that cannot be negotiated with vertical or oblique strokes. The direction, length, pressure, and number of strokes necessary for either scaling or root planing are determined by four major factors: (1) gingival position and tone, (2) pocket depth and shape, (3) tooth contour, and (4) the amount and nature of the calculus or roughness.

- **Exploratory stroke:** is a light, “feeling” stroke that is used with probes and explorers to evaluate the dimensions of the pocket and to detect calculus and irregularities of the tooth surface. The instrument is grasped lightly and adapted with light pressure against the tooth to achieve maximal tactile sensitivity.
- **Scaling stroke:** is a short, powerful pull stroke that is used with bladed instruments for the removal of both supragingival and subgingival calculus. The scaling motion should be initiated in the forearm and transmitted from the wrist to the hand with a slight flexing of the fingers. The scaling stroke is not initiated in the wrist or fingers nor is it carried out independently without the use of the forearm.
- **Root planing stroke:** is a moderate to light pull stroke that is used **for** final smoothing and planing of the root surface. With a moderately firm grasp, the curette is kept adapted to the tooth with even, lateral pressure. A continuous series of long, overlapping shaving strokes is activated. As the surface becomes smoother and resistance diminishes, lateral pressure is progressively reduced.



1. "Pulling" strokes are **safer** than "pushing" strokes because the push stroke may force calculus into the supporting tissues. Its use, especially in an apical direction, is not recommended.
2. Probing stroke: upward and downward movement within a periodontal pocket.
3. The **modified pen grasp** is the most useful grasp for periodontal instrumentation.
4. The lower third of the working end, which is the last few millimeters adjacent to the toe or tip, must be kept in constant contact with the tooth while it is moving over the tooth.
5. For **subgingival insertion** of a bladed instrument such as a curette, angulation should be as close to **0 degree** as possible. During **scaling and root planing**, optimal angulation is between **45 and 90 degrees**.