



KARL SCHUMACHER
PROXIMATORS

Important Considerations

Proximators® are used primarily for severing the periodontal fibers, and creating lateral expansion of the alveolus. The combined results of their application reduce the amount of potentially damaging lateral forces transmitted should a traditional elevator or forceps be required for the withdrawal of the root structure from the socket.

Proximators® should be considered cutting instruments. The distinct design of the Proximators® handles helps to re-enforce this fact: Visually, the instrument has a small diameter with an intense gripping surface. This conveys its function of working apically, with minimal rotation.

For ease of application and visualization at the surgical site, the removal of any remaining coronal structure present should be considered.

Holding the Proximators®

There are two common ways of holding and applying the Proximators®, dependant upon the tooth to be extracted and the clinician's opinion of which method is preferred:

Finger Directed (Modified Pen Grasp)

This method will allow for more finite control of the instrument, and is best for the initial insertion and engagement of the tips into the PDL.



The Proximator® is held between the thumb and index finger, with the middle finger extended down along side the shaft. The middle finger helps to guide the tip, and gives visual reference to the angle and direction of the tip of the instrument. The ring finger is placed on the occlusal of the adjacent crown in order to stabilize the hand and instrument. Apical force is delivered by the combined movement of the thumb, index and middle finger.



Palm Directed

This method will allow for a greater transmission of apical force, and should be utilized once the tip of the instrument is definitively engaged into the PDL.

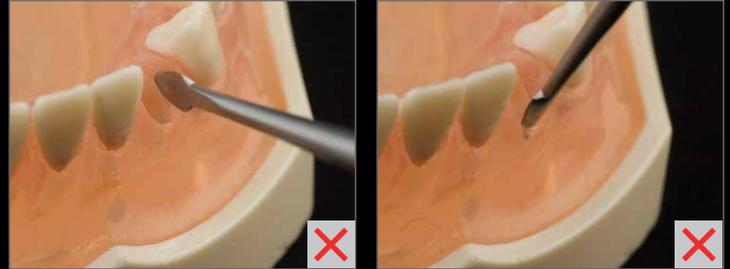
The base of the Proximator® is held firmly in the palm of the hand while the tip is steadied by resting the index finger about ¾ of the way up the shaft. The placement of the index finger on the shaft allows

for manipulating and directing the tip during application, while apical force is applied from the palm.

Application of Proximators®

To achieve optimal results, Proximators® should be applied vertically, in line with the long axis of the root, toward the apex, primarily on the mesial and distal aspects of the root in order to avoid damaging the thin buccal plate.

Angulations and curvatures of the root structure should be considered during application. Proximators® should be advanced directly alongside the root to minimize trauma to the surrounding bone structure.



At no time should any type of conventional elevation techniques be used. The tips of the Proximators® are not designed to withstand the commonly applied rotational or leverage type forces associated with standard elevation techniques.

Initial Placement

The Proximator® should be held so that the cutting end of the tip is toward the root apex, parallel to, and in line with the Periodontal Ligament space, with the gouge against the tooth. Insertion can begin at any mesial or distal aspect of the tooth. Once aligned, the Proximator® is then advanced into the sulcus, incising the soft tissue attachment at the neck of the tooth down to the bony crest.



Locating the PDL space

The tip of the Proximator® is then manipulated along the neck of the tooth in order to locate and engage into the entrance of the PDL space. Angling the tip slightly in towards the tooth, so that the leading edge is in contact with the tooth, as is done when using an explorer sub-gingivally, can help the tip 'feel' it's way into the PDL space. Care must be taken to ensure the tip will enter the PDL space and not ride the bony crest away from the root and into the soft tissue.

Apical Progress

After the tip of the Proximator® is definitively engaged in the PDL space, apically directed hand pressure should now be applied to the Proximator® in order to drive the leading edge of tip deeper into the PDL space. Rocking the tip of the Proximator® parallel to the



surface of the root will help to work the instrument deeper. This movement will also slightly compress the bone laterally away from the root surface, helping to enlarge the socket for delivery of the root.



Withdrawal and Reinsertion

Once further apical progress cannot be achieved with hand pressure, the tip of the instrument should be withdrawn using the same motions to advance the tip, but in the occlusal direction. The tip of the Proximator® is then positioned at another point

along the root and re-inserted using the same apical pressure and rocking motion in order to sever the attachment. The application of the Proximator® should be repeated around the circumference of the root, as access permits.

After Application

Superior movement is often noted but not required. The elimination of the majority of the prime retentive factor – the fibrous attachment – has been accomplished. Additionally, through controlled socket expansion, the ideal path of egress for the root structure has been made for forceps delivery. Extraction forceps can now be applied to the tooth for elimination of any remaining ligamental connections at the apex, and for final delivery of the root structure.



Sharpening the Proximators®



All Standard Proximators® can be sharpened using the Ø10mm medium Arkansas Stone (#24.923.10), as the concavity of the tip perfectly matches the outer diameter of the stone.

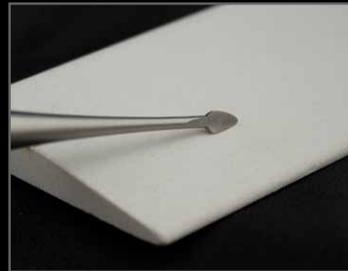
Alignment

The Proximator® should be held in the dominant hand with the tip steadied and positioned by resting your index finger on the

back of the tip. Use the other hand to firmly hold the stone on a stable surface. The concavity of the tip should be lined up flat against the curvature of the stone. A slight side to side rolling motion of the tip can be used to ensure the curvatures align.

Sharpening

In order to keep the tips both sharp *and* thin the surface of the tip of the Proximator® should be lifted slightly so that the tip is angled 15 to 25 degrees in relation to the stone. The tip of the Proximator® is then pushed down the stone, away from you, making sure to keep the tip centered along the long axis of the stone. At the end of the stroke the tip is repositioned at the starting point, and the prior steps are repeated until the desired sharpness is achieved. It is important to not pull or rub the Proximator® tip along the stone. Doing so will leave a very fine bur at the tip, reducing not only the initial sharpness, but the length of time between sharpening.



Sharpened Spade Proximators®

Due to the design of the Sharpened Spade Proximators® there will be less of a need to routinely sharpen them. For the very best results we recommend returning the Sharpened Spade Proximators® to our office

to be sharpened, however we realize that may not always be convenient. Unlike the Standard Tip Proximators®, Sharpened Spade Proximators® should be sharpened along the outside edge using a medium Arkansas Slip stone or any flat surfaced medium Arkansas stone.

Alignment

The Proximator® should be held in the dominant hand while using the other hand to firmly hold the stone on a stable surface. The outside edge of the tip should be positioned along the flat face of the stone, angled slightly towards the backside of the tip.

Sharpening

The edge of the of the Sharpened Spade Proximators® should be drawn down along the surface of the stone, slightly lifting the handle in order to fully hone the outside edge to the very tip of the point. At the end of the stroke the tip is repositioned at the starting point, and the prior steps are repeated until the desired sharpness is achieved. Once you feel that the edge is sufficiently sharpened the tip should rotated to align the opposite edge of the Sharpened Spade Proximator® and the entire process should be repeated to sharpen the other edge of the tip. Attention should be paid to ensure one edge is not overly sharpened, resulting in an lopsided tip.

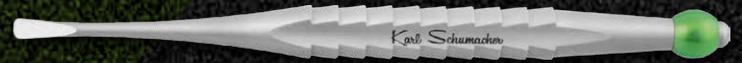
Please do not hesitate to call, email, or otherwise contact us with any questions you have regarding the use or sharpening of your Proximators®.

Karl Schumacher Dental, LLC
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17.007.01
Small Straight Proximator®



17.007.02
Large Straight Proximator®



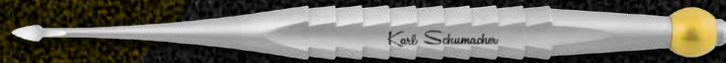
17.007.03
Small Curved Proximator®



17.007.04
Large Curved Proximator®



17.007.05
Straight Spade Proximator®



17.008.01
Small Distal Proximator®



17.008.02
Small Mesial Proximator®



17.008.03
Large Distal Proximator®



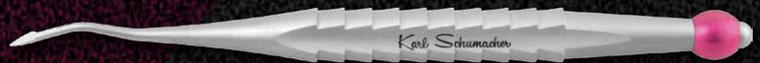
17.008.04
Large Mesial Proximator®



17.008.05
Distal Spade Proximator®



17.008.06
Mesial Spade Proximator®



17.008.08
Right Spade Proximator®



17.008.09
Left Spade Proximator®



17.008.10
Tight Mesial Spade Proximator®



17.008.11
Small Tight Mesial Proximator®



24.923.10
Arkansas Sharpening Stone

