



INSTRUMENT SHARPENING - SCALERS AND CURETTES

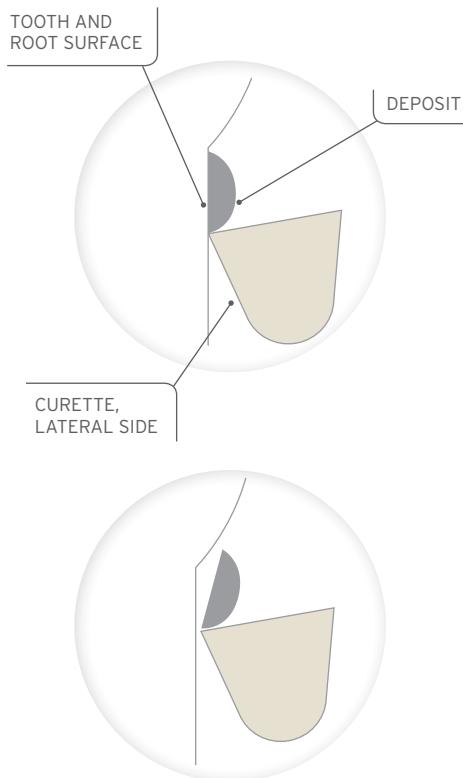
Instruments should be kept sharp and true to their original design. In addition, dental procedures are most effective with sharp instruments.

SHARP INSTRUMENTS

- Improve calculus removal
- Reduce fatigue
- Save time
- Improve tactile sensitivity
- Minimize patient discomfort

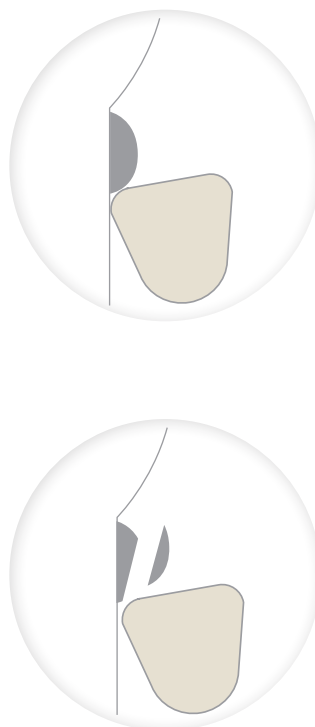
SHARP CURETTE (CROSS SECTION)

Sharp instruments remove entire deposits



DULL CURETTE (CROSS SECTION)

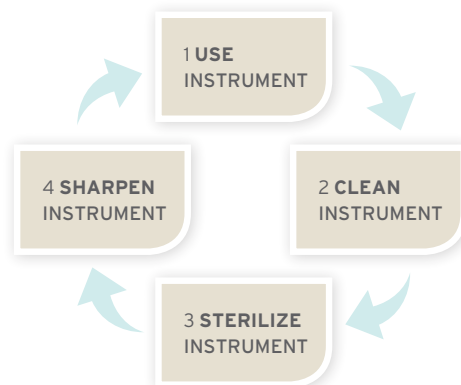
Dull instruments only "burnish" or remove part of a deposit



WHEN TO SHARPEN?

Ideally, instruments should be sharpened regularly at the first sign of dullness. Consider the following to help determine when instruments need to be sharpened:

1. The frequency of instrument use.
2. The degree of patient difficulty.
3. Results of evaluating the cutting edge against a plastic test stick.



HOW TO SHARPEN

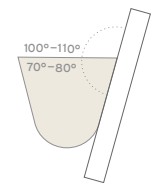
The following steps outline the "Stationary Instrument, Moving Stone" sharpening technique:

1. Stabilize the instrument.
2. Apply stone to lateral surface to form a 110° angle with the face.
3. Position the stone to contact the heel of the blade and work toward the tip.
4. Move the stone up and down with short strokes.
5. A sludge will appear on the face of the blade as it is sharpened. It can be wiped clean with sterile gauze.
6. Finish with a down stroke (to avoid a roughened edge).
7. Repeat the procedure to sharpen the opposite cutting edge of sickles and universal curettes.

ANGULATION

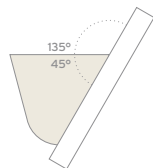
CORRECT ANGULATION

When the stone is correctly placed against the blade, the internal angle (70° to 80°) is maintained.



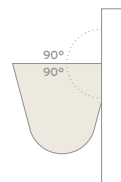
TOO MUCH ANGULATION

When the internal angle is less than 70°, the blade becomes weak and also dulls quickly.



NOT ENOUGH ANGULATION

When the internal angle is greater than 80°, the blade becomes bulky and is difficult to adapt to the tooth.





INSTRUMENT SHARPENING - SCALERS AND CURETTES

ROUNDING THE TOE OF A CURETTE

1. Stabilize the instrument.
2. Place stone at a 45° angle to the face.
3. Use up and down strokes, and rotate the stone around the toe.



SHARPENING THE FACE OF DENTAL INSTRUMENTS

Sharpening the face of periodontal instruments is only recommended for removing a roughened edge. The cutting edge should be restored by reducing the lateral side. Excessive grinding of the face weakens the blade.

To sharpen the face of curettes and curved sickles, use a conical or cylindrical stone (SS299, SS2 or SSKC).

1. Stabilize the instrument.
2. Place stone at junction of face and shank.
3. Roll stone across the face, moving toward the tip/toe.
4. Use a few strokes and light, even pressure.

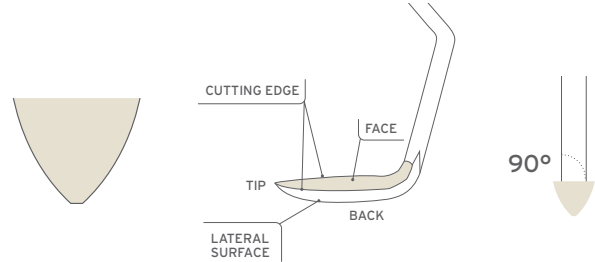


To sharpen the face of a straight sickle, use a flat stone.

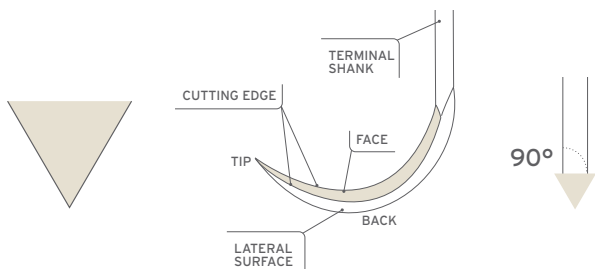
1. Apply stone to entire facial surface.
2. Move the stone across the face using a back/forth motion.
3. Use a few strokes and light, even pressure.

INSTRUMENT DESIGN TO CONSIDER WHEN SHARPENING

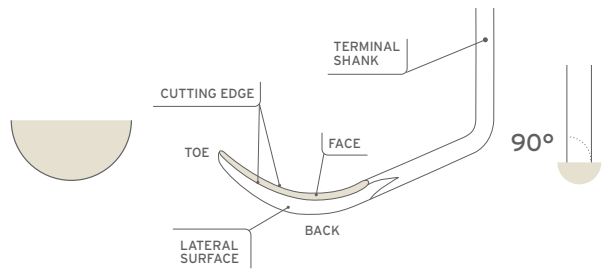
STRAIGHT SICKLE SCALER



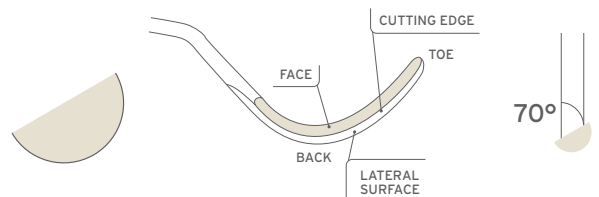
CURVED SICKLE SCALER



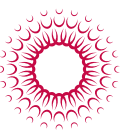
UNIVERSAL CURETTE



GRACEY CURETTE



Use the Arkansas stones for everyday instrument maintenance, and the Ceramic and I-Stones for recontouring. Most popular stones: SS3C, SS4

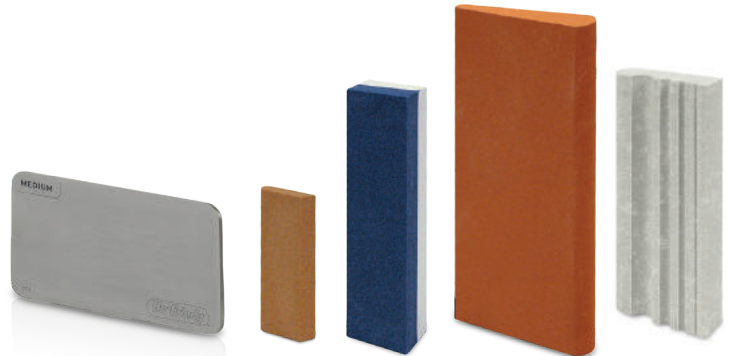


SHARPENING STONES

Sharpening stones restore the cutting edge on dull instruments. Stones are available in various grits, shapes and sizes (see pages D36-D37). The chart below outlines the type of stone to use for various sharpening needs.

After use, wipe with a clean cloth to remove metal particles. Scrub or ultrasonically clean to remove lubricant before sterilization.

After sterilization, lubricate before each use and be sure to use the entire stone to prevent "grooving." Petroleum jelly is NOT recommended for lubrication as it can clog the stone's pores and thus reduces effectiveness.



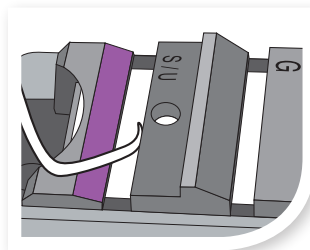
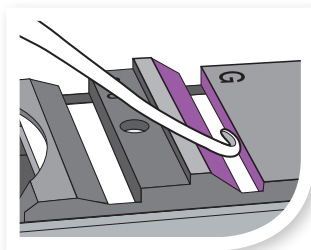
SHARPENING STONE COMPARISON CHART

NAME	ORIGIN	METHOD	LUBRICANT	TEXTURE	APPLICATION
Arkansas Stone	Natural	Unmounted, mounted or rotary	Oil	Fine	Routine sharpening and finishing
I Stone	Synthetic	Unmounted	Oil or Water	Medium to Coarse	Sharpening of dull instruments or those requiring re-contouring
Ceramic Stone	Synthetic	Unmounted	Water or Dry	Fine/Medium	Routine sharpening and finishing
Composition Stone	Synthetic	Mounted	Water	Coarse	Reshaping of dull instruments
Diamond Sharpening Cards	Diamond Micron Coated Steel Plate	Unmounted	Dry or Water	Extra Fine, Fine and Medium	Create fine edges on blades, routine sharpening and reconditioning of dull instruments

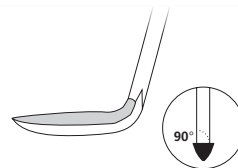
SIDEKICK® SHARPENER

SHARPENING MADE EASY!

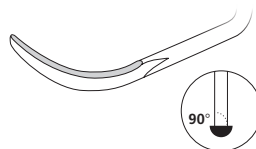
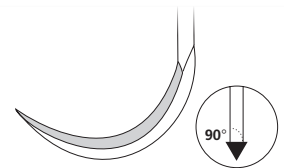
- Easy-to-read letters indicate Graceys (G) or Sickles and Universals (S/U).
- Position the instrument in the specific channel, with the terminal shank resting on the incline of the channel.
- Position the back of the instrument along the backstop of the guideplate.
- Turn the unit on and glide the instrument within the channel from side to side.
- Repeat 2-3 times or until blade is sharp.



ACHIEVE ACCURATE ANGLES EVERY TIME



SICKLE SCALERS

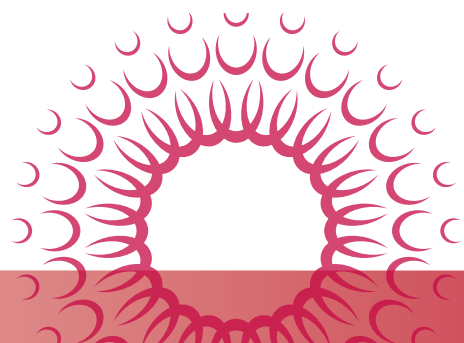


UNIVERSAL CURETTES



GRACEY CURETTES

Sharpen-Ez™ Sharpening Oil (SSO) is a lightweight, medical grade mineral oil which reduces clogging and enhances the stone's effectiveness. See page D36 for more information.





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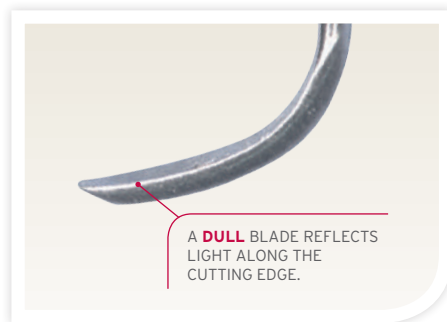
HOW TO RECOGNIZE A DULL INSTRUMENT

1. The instrument does not **grab** or **bite**.
2. More pressure is needed for effective instrumentation.
3. Repeated strokes are necessary to remove the deposit.

HOW TO DETERMINE INSTRUMENT SHARPNESS

- A. **Plastic test stick:** To test sharpness with a plastic test stick, apply the cutting edge to the stick and evaluate the "bite" as the edge takes hold. If there is not a "bite," the instrument needs sharpening.
- B. **Visual inspection:** To test sharpness by visual inspection, a bright light (and if possible, a magnifying glass) is required. Hold the instrument under the light and rotate until the edge is facing the light. If you can see light reflecting off the cutting edge, then the instrument is dull.

VISUAL INSPECTION



COMMON SHARPENING ERRORS

- | | |
|--|--|
| Sharpened Correctly | |
| Too little angulation | |
| Too much sharpening of the face | |
| Too much angulation between the stone and the blade | |
| The toe has been sharpened to a point | |
| Gracey Curette top view: Sharpening in one place flattens the edge | |
| Sickle scalertop view: Sharpening in one place flattens the edge | |

EDUCATIONAL AIDS

It's About Time to Get on the Cutting Edge Instrument Sharpening Manual **SHM**

It's About Time to Get on the Cutting Edge Instrument Sharpening DVD (12 minutes) **SDVD**

(Sharpening Manual and DVD also available in Spanish)

