

## Sharpening and Care of Dental Hand Instruments

Regular normal use of dental hand instruments such as elevators, luxators and curettes will round and dull the originally sharp edges. This reduces the effectiveness of the instrument and increases user fatigue – it will make your life harder!

A very short time spent after a procedure, or at the end of an operating session, lightly sharpening instruments after cleaning prior to routine sterilisation should make a noticeable difference in their feel in use.

In common with all stainless instruments, dental instruments should be stored clean and dry. They will benefit from treating with instrument oil or lube periodically to maintain their surface finish.

Additionally, many dental instruments have delicate thin sharp tips. These are easily damaged, and can damage staff just as easily if not stored securely. Rolling around in a drawer is not adequate! Silicone, autoclave able protective tips are available in a range of sizes, as are storage boxes with silicone fingered inserts to reduce movement.

## Sharpening equipment

Types of sharpening equipment are shown below. Whichever are used, they should all be wiped clean after use, to remove metal particles from the surface. Left to dry, this will clog up the sharpening surface and significantly reduce effectiveness.

Description	Lubricant	Suitable for	Advantages/Disadvantages	Order code
White wedge slipstone	Water	Curettes & elevators	Has flat & curved surfaces Fragile – will shatter if dropped	012150
Diamond card flat	Water	Elevators and luxators	Virtually indestructible surface. More expensive. Flat surface only	012151
Diamond cone	Water	Curettes	Virtually indestructible surface. More expensive. Curved surface only.	012148
Luxator sharpening stone	Water	Luxators (as supplied in luxator kits)	Supplied with specific Swedish luxator kit. Cylindrical so only fits 1 size luxator.	012190L10

A combination of a diamond card and diamond cone should cover all your sharpening needs.



Diamond card



White Slipstone



Diamond cone

## **Sharpening techniques.**

### **General advice**

- Before sharpening look at the angle of the cutting tip you are about to sharpen. The aim of sharpening is to maintain the same degree of bevel as was on the instrument originally, not to change the shape.
- Lubricate your chosen sharpener with water. Repeat as necessary during sharpening. This reduces heat produced during sharpening, and keeps dust and metal filings down.
- Use appropriate personal protective equipment – safety goggles are best.

### **Curettes and scalers.**

Select a curved sharpener. Using the curve that best fits their shape, use a back and forth and rotating movement of the stone or cone to sharpen the face of the instrument.

### **Elevators**

These are sharpened on a flat surface. The elevator is held in the hand with the index finger just behind the point, with the concave side uppermost. Stroke away while maintaining the angle of the cutting surface. Remember to lift between each stroke.

### **Swedish luxators**

Have a flatter concave surface the elevators, and have sharp edges as well as tip. The handles are plastic. The manufacturer recommends that these are sharpened on the concave surface. The stone supplied with these and shown in the table above is round with parallel sides, so is fixed diameter. This is therefore only suitable for one size of luxator. Using the diamond cone will provide a sufficient range of diameters to match the luxator to be sharpened.

Having matched the diameter of your luxator, hold the lubricated sharpening instrument steadily in one hand and place the concave tip of the blade on the sharpening surface and stroke away. Lift the blade after each stroke. Repeat until sharp.

### **Checking your instrument is sharp!**

Get an old plastic toothbrush or a piece of plastic with a similar density. Hold the sharpened instrument at a 45 degree angle to the surface. Using light pressure, push or pull it, depending on how it's normally used. If it slips or glides, it's not sharp. If the instrument grabs or shaves the surface, it's sharp.