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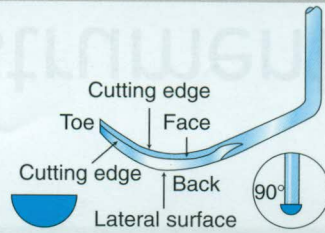
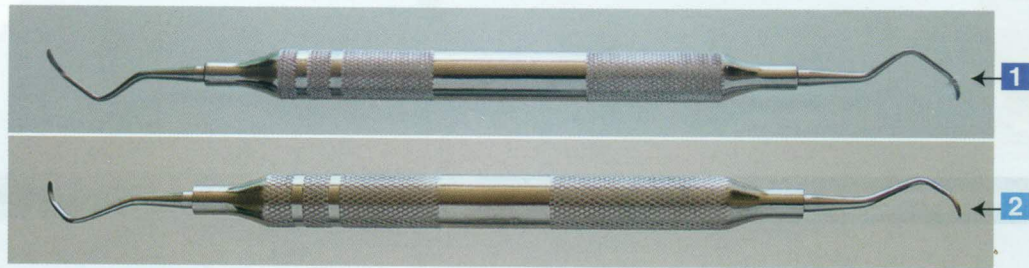
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Sealing a Tooth for Endodontic Therapy

12

Hygiene Instruments





■ INSTRUMENT Universal Curettes (Curet)

Functions ► To scale and remove deposits and stains from teeth
 To scale supragingival and subgingival surfaces
 To remove soft-tissue lining of periodontal pocket and root planing

Characteristics ► Blade—Two cutting edges, rounded toe, rounded back; at 90-degree angle to lower shank
 Flexible or rigid shank; length varies to accommodate clinical crown of tooth
 Single or double ended
 Range of sizes
 Curette named by designer:

- 1 Barnhart $\frac{1}{2}$
- 2 Ratcliff $\frac{3}{8}$

Practice Note ► Universal Curettes are used on hygiene, periodontal, and operative tray setups.

S Universal Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



INSTRUMENT

Universal Curettes (Curet)

- Functions** ▶ To scale and remove deposits and stains from teeth
To scale supragingival and subgingival surfaces
To remove soft-tissue lining of periodontal pocket and root planing

- Characteristics** ▶ Blade—Two cutting edges, rounded toe, rounded back; at 90-degree angle to lower shank
Flexible or rigid shank; length varies to accommodate clinical crown of tooth
Single or double ended
Range of sizes
Curette named by designer:

- 1 UC/Rule $\frac{5}{8}$
- 2 Loma Linda $\frac{1}{12}$
- 3 McCall $\frac{1}{18}$

- Practice Note** ▶ Universal Curettes are used on hygiene, periodontal, and operative tray setups.

S Universal Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT

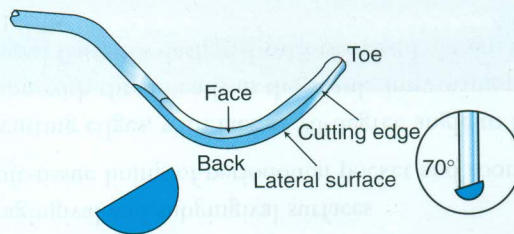
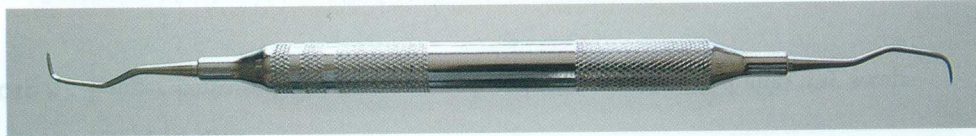
Langer Universal Curettes

- Functions ▶**
- To scale and remove deposits and stains from teeth
 - To scale supragingival and subgingival surfaces
 - To remove soft-tissue lining of periodontal pocket and root planing

- Characteristics ▶**
- Blade—Two cutting edges, with face at 90-degree angle to lower shank
 - Design function with three bends in the shank, improving posterior access
 - Langer Universal Curettes designed with the shank design of a Gracey combined with a Universal blade
 - Single or double ended
 - Range of sizes

- Practice Note ▶** Langer Universal Curettes are used on hygiene and periodontal tray setups.

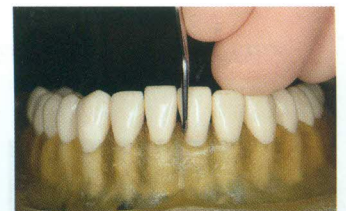
S Langer Universal Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT Area-Specific Curettes—Anterior

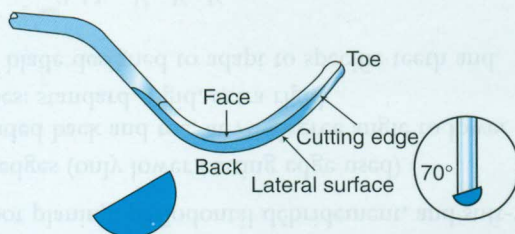
Functions ▶ To scale and remove deposits from subgingival surfaces of anterior teeth
To use for root planing, periodontal débridement, and soft-tissue curettage

Characteristics ▶ Two cutting edges (only lower cutting edge used)
Blade—Rounded back and toe; at 70-degree angle to lower shank; types: standard, rigid, extra rigid
Curvature of blade designed to adapt to specific teeth and surfaces
Range of sizes available: $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$
Curette named by designer: Gracey, Kramer-Nevins, Turgeon



Practice Note ▶ Area-Specific Curettes—Anterior are used on hygiene and periodontal tray setups.

S Area-Specific Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



INSTRUMENT Area-Specific Curettes—Posterior

Functions ▶ To scale and remove deposits from subgingival surfaces of posterior teeth
To use for root planing, periodontal débridement, and soft-tissue curettage

Characteristics ▶ Two cutting edges (only lower cutting edge used)
Blade—Rounded back and toe; at 70-degree angle to lower shank; types: standard, rigid, extra rigid

Curvature of blade designed to adapt to specific teeth and surfaces

Range of size, shape, and bends in shank

Two bends in shank

Examples: $\frac{7}{8}$, $\frac{9}{10}$

Three bends in shank

Examples: $\frac{1}{12}$, $\frac{1}{14}$, $\frac{1}{16}$, $\frac{1}{18}$

Curette named by designer: Gracey, Kramer-Nevins, Turgeon



Practice Note ▶ Area-Specific Curettes—Posterior are used on hygiene and periodontal tray setups.

S Area-Specific Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT

Extended Area-Specific Curettes—Anterior

- Function ▶** To scale and remove deposits in deep periodontal pockets 5 mm or deeper
- Characteristics ▶**
- Two cutting edges (only lower cutting edge used)
 - Blade at 70-degree angle to lower shank; types: standard, rigid, extra rigid
 - Curvature of blade designed to adapt to anteriors
 - Terminal shank redesigned—3 mm longer than standard Area-Specific Curette
 - Manufacturer's trademark name usually follows $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$ numbering system
 - Range of sizes—Commonly used types: $\frac{3}{4}$, $\frac{5}{8}$
 - Double-ended curettes packaged in sets
 - Curettes named by designer: Gracey $\frac{1}{2}$
- Practice Note ▶** Extended Area-Specific Curettes—Anterior are used on hygiene and periodontal tray setups.

S Extended Area-Specific Curettes must be cleaned, bagged individually or bagged/ wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT Extended Area-Specific Curettes—Posterior

Function ▶ To scale and remove deposits in deep periodontal pockets (5 mm or deeper)

Characteristics ▶ Two cutting edges (only lower cutting edge used)
 Blade at 70-degree angle to lower shank; types: standard, rigid, extra rigid
 Curvature of blade designed to adapt to premolars, molars
 Terminal shank redesigned—3 mm longer than standard Area-Specific Curette
 Range of sizes
 Commonly used types: $\frac{1}{12}$, $\frac{1}{14}$, $\frac{1}{16}$, $\frac{1}{18}$
 Double-ended curettes packaged in sets
 Curettes named by designer: Gracey $\frac{1}{12}$ Rigid, Gracey $\frac{1}{12}$

Practice Note ▶ Extended Area-Specific Curettes—Posterior are used on hygiene and periodontal tray setups.

S Extended Area-Specific Curettes must be cleaned, bagged individually or bagged/ wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



INSTRUMENT

Mini Extended Area-Specific Curettes—Anterior

- Function** ▶ To scale in deep periodontal pockets (5 mm)
- Characteristics** ▶ Blade redesigned to be half the length of Extended Area-Specific Curette
 Designed for narrow roots, pockets, or furcations
 Two cutting edges (only lower cutting edge used)
 Blade at 70-degree angle to lower shank; types: standard, rigid, extra rigid
 Curvature of blade designed to adapt to anteriors
 Range of sizes
 Manufacturer's trademark name usually follows $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$ numbering system
 Curettes named by designer: Gracey $\frac{1}{2}$
- Practice Note** ▶ Mini Extended Area-Specific Curettes—Anterior are used on hygiene and periodontal tray setups.

S Mini Extended Area-Specific Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



INSTRUMENT Mini Extended Area-Specific Curettes—Posterior

Function ▶ To scale in deep periodontal pockets (5 mm)

Characteristics ▶ Blade redesigned to be half the length of Extended Area-Specific Curette
Designed for narrow roots, pockets, or furcations
Two cutting edges (only lower cutting edge used)
Blade at 70-degree angle to lower shank; types: standard, rigid, extra rigid
Curvature of blade designed to adapt to premolars, molars
Range of size, shape, and bends in shank available

Two bends in shank

Examples: $\frac{7}{8}$, $\frac{9}{10}$

Three bends in shank

Examples: $\frac{11}{12}$, $\frac{13}{14}$, $\frac{15}{16}$, $\frac{17}{18}$

Curettes named by designer: Gracey $\frac{1}{2}$ Mini Extender

Practice Note ▶ Mini Extended Area-Specific Curettes—Posterior are used on hygiene and periodontal tray setups.

S Mini Extended Area-Specific Curettes must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT Implant Scaler

Function ▶ To remove deposits and stains from surface of implant

Characteristics ▶ **1** Disposable tips (Each tip should be sterilized before use.)
Instrument with disposable tip attached.

2 Titanium-coated scaler

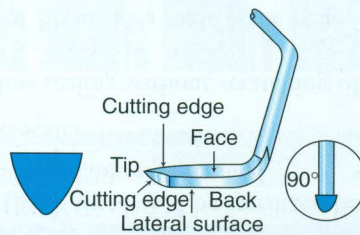
Different designs allow scaling without scratching of titanium implants

Some tips are made of Plasteel—a high-grade resin

Practice Note ▶ Implant scaler are used on hygiene and periodontal tray setups.



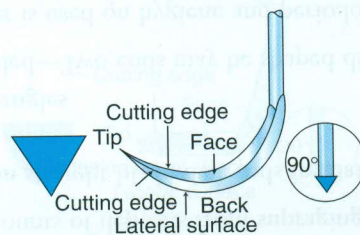
S Handle and titanium-coated scaler must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping or disposable scaler tip should be disposed of in a Sharps container.



■ INSTRUMENT Straight Sickle Scaler

- Function** ▶ To remove large amounts of deposits from supragingival surfaces
- Characteristics** ▶ Two cutting edges on straight blade that ends in sharp point
 Long; two bends in shank
 Variety of sizes and angles
 Single or double ended—Two ends may be shaped differently
- Practice Note** ▶ Straight Sickle Scaler is used on hygiene and periodontal tray setups.

S Straight Sickle Scaler must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT Curved Sickle Scaler

Function ► To remove large amounts of deposits from supragingival surfaces

Characteristics ► Two cutting edges on curved blade that ends in sharp point
Long, straight shank with one gentle bend
Variety of sizes and angles
Single or double ended—Two ends may be shaped differently

Practice Note ► Curved Sickle Scaler is used on hygiene and periodontal tray setups.

S Curved Sickle Scaler must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



INSTRUMENT

Micro Mini-Five Area-Specific Curette

- Function ▶** To scale into periodontal pockets and root surfaces of 5 mm or more
- Characteristics ▶** Blade half the length of After Five or standard Gracey
Shank slightly increased rigidity compared to traditional Mini Five Gracey Curettes
- Practice Notes ▶** Designed for narrow pockets and furcations
Micro Mini-Five Area-Specific Curette—used on hygiene and periodontal tray setups

S Micro Mini-Five Area-Specific Curette must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



Photo courtesy DENTSPLY International, York, PA.

INSTRUMENT**Ultrasonic Scaling Unit (Power Scaler)**

Function ▶ To use with water-cooled ultrasonic tips vibrating at high frequency

Characteristics ▶ Ultra-high frequency sound waves convert mechanical energy into vibrations (frequency ranges from 18 to 50 kHz).

Some units have self-contained water reservoirs (left).

Some units have an additional air/water/sodium bicarbonate slurry polishing system to remove extrinsic stains and dental plaque.

Variety of sizes and designs are available.



Practice Note ▶ Ultrasonic Scaling Unit/Power Scaler is used during a routine prophylaxis appointment or for other appointments for root planing.



Barriers should be used for Power Scaler. Refer to the manufacturer's recommendation for disinfecting the unit. Power Scaler inserts must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.

**INSTRUMENT****Ultrasonic Scaler Instrument Tip—Supragingival**

- Functions ▶**
- To remove supragingival calculus on teeth
 - To remove bacterial plaque from periodontal pockets
 - To remove heavy debris and stains from teeth
 - To remove excess cement from orthodontic bands after cementation and after band removal

- Characteristics ▶**
- Supragingival tip is inserted into the tubing on the Ultrasonic Scaling Unit
 - Available in different lengths (called *stacks*): 25 kHz or 30 kHz, depending on unit
 - Water-cooled inserts (Water systems vary with internal or external water delivery.)
 - Variety of shapes, sizes, and designs, depending on designated and varying grips
 - Example:* Original Prophyl, *Tip style:* Finely beveled internal water delivery tube

- Practice Notes ▶**
- Ultrasonic Scale Tip—Supragingival is used on hygiene and periodontal tray setups.
 - These tips are also known as *ultrasonic inserts*.



Ultrasonic Scaler Tip—Supragingival must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT

Ultrasonic Scaler Instrument Tip—Subgingival

- Functions** ▶ To remove subgingival calculus on teeth
To remove bacterial plaque from periodontal pockets

- Characteristics** ▶ Subgingival tip is inserted into the tubing on the Ultrasonic Scaling Unit.
Available in different lengths (called *stacks*): 25 kHz or 30 kHz, depending on unit
Water-cooled inserts (Water systems vary with internal or external water delivery.)
Variety of shapes, sizes, and designs, depending on designated area and varying grips
Example: After Five design
Tip style: Finely beveled internal water delivery tube (pictured)

- Practice Notes** ▶ Ultrasonic Scaler Tip—Subgingival is used on hygiene and periodontal tray setups.
These tips are also known as *ultrasonic inserts*.



Ultrasonic Scaler Tip—Subgingival must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT Ultrasonic Scaler Instrument Tip—Furcation

- Function** ▶ To remove bacterial plaque from furcation areas
- Characteristics** ▶ Furcation tip is inserted into the tubing on the Ultrasonic Scaling Unit.
Available in different lengths (called *stacks*): 25 kHz or 30 kHz, depending on unit
Water-cooled inserts (Water systems vary with internal or external water delivery.)
Variety of shapes, sizes, and designs, depending on designated area and varying grips
Example: Furcation Plus design
Tip style: 0.8-mm ball end adapts to furcation, external water delivery tube (pictured)
- Practice Notes** ▶ Ultrasonic Scaler Tip—Furcation is used on hygiene and periodontal tray setups.
These tips are also known as *ultrasonic inserts*.

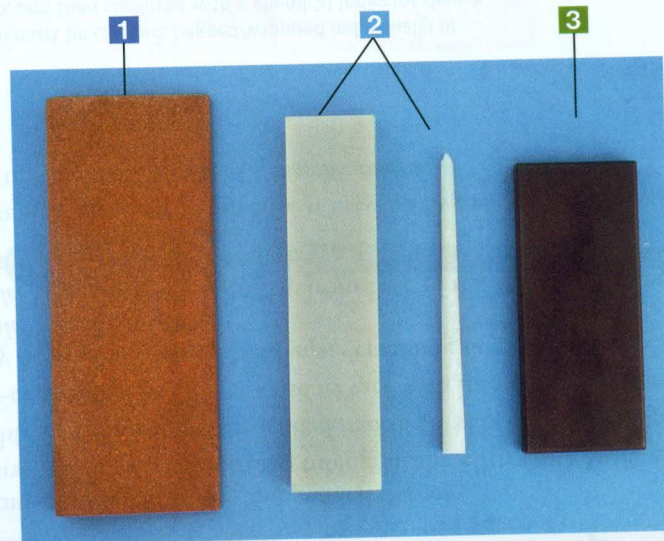
S Ultrasonic Scaler Tip—Furcation must be cleaned, bagged individually or bagged/ wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ INSTRUMENT Ultrasonic Scaler Instrument Tip—Universal

- Function ▶** To remove bacterial plaque and general deposits
- Characteristics ▶** Universal tip is inserted into the tubing on the Ultrasonic Scaling Unit.
Available in different lengths (called *stacks*): 25 kHz or 30 kHz, depending on unit
Water-cooled Inserts (Water systems vary with internal or external water delivery.)
Variety of shapes, sizes, and designs, depending on designated area and varying grips
Example: Streamline design
Tip style: Water delivered directly from base of tip, eliminating need for external water system; efficient at low settings (pictured).
- Practice Notes ▶** Ultrasonic Scaler Tip—Universal is used on hygiene and periodontal tray setups.
These tips are also known as *ultrasonic inserts*.

S Ultrasonic Scaler Tip—Universal must be cleaned, bagged/wrapped individually or bagged/wrapped in a tray setup, and then sterilized with a chemical indicator device included in the wrapping.



■ INSTRUMENT Sharpening Stones

Function ▶ To sharpen scalers and curettes

Characteristics ▶ Types of stones:

- 1** India stones—Remove the most metal when used and should be followed with an Arkansas or ceramic stone
- 2** Arkansas stones—Provide a polished edge (flat and cone-shaped pictured)
- 3** Ceramic stones—Provide a polished edge and do not require lubrication

Practice Note ▶ Sharpening Stones are used on hygiene and periodontal tray setups.



S Sharpening Stones must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.

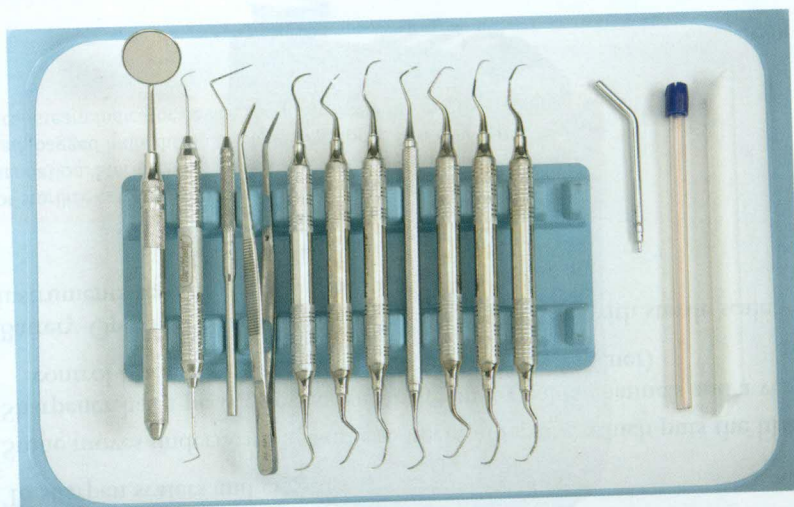


Photo courtesy Hu-Friedy Mfg. Co., LLC, Chicago, IL.

■ INSTRUMENT Battery-Operated Sharpening Device

- Function ▶** To sharpen scalers and curettes
- Characteristics ▶** Stone moves underneath a stainless-steel guideplate, which puts the blade at factory angles. Sharpener has a power device with instrument guide channels and a vertical backstop to help control blade angulation. (Pictured: Sidekick Sharpener)
- Practice Note ▶** Battery-Operated Sharpening Device should be used with sterile scalers and curettes, and then instruments resterilized after sharpening.

S Barrier wrap; disinfect or sterilize certain parts of equipment according to the manufacturer's recommendation. Sterilized instruments should be used for sharpening and then must be cleaned, bagged individually or bagged/wrapped in a tray setup, and then sterilized. A chemical/steam indicator device should be included in the wrapping.



■ TRAY SETUP

Hygiene

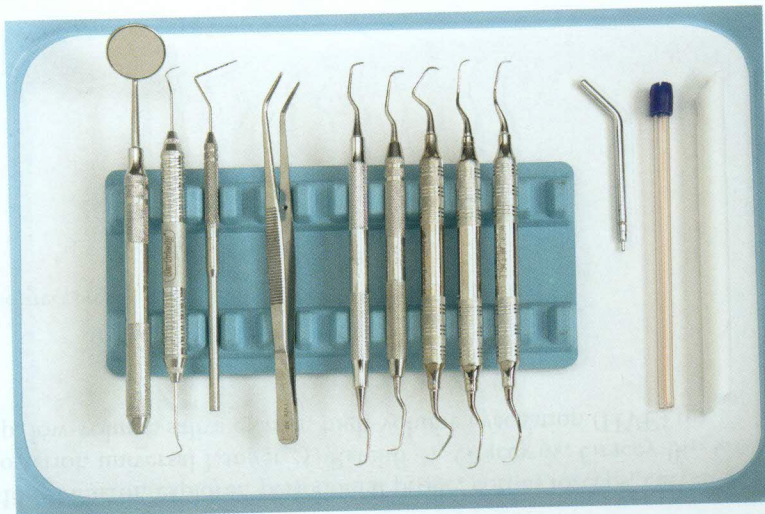
From Left to Right ►

Mouth mirror, explorer, periodontal probe, cotton forceps, curved sickle scaler, 4L/4R universal posterior, universal Langer $\frac{1}{2}$, Ratcliff $\frac{1}{4}$, Gracey $\frac{3}{8}$, Gracey $1\frac{1}{2}$, Gracey $1\frac{3}{4}$, air/water syringe tip, low-volume saliva ejector, high-volume evacuation (HVE) tip



Refer to each picture for correct procedure for instrument sterilization or disposal of instrument or material.

Refer to other chapters for additional instruments on this tray setup that are not included in this chapter.



■ TRAY SETUP Root Planing

From Left to Right ► Mouth mirror, explorer, periodontal probe, cotton forceps, Gracey $\frac{1}{2}$, Gracey $\frac{3}{4}$, Gracey $\frac{7}{8}$, Gracey $1\frac{1}{2}$, Gracey $1\frac{3}{4}$, air/water syringe tip, low-volume saliva ejector, high-volume evacuation (HVE) tip

S Refer to each individual picture for correct procedure for instrument sterilization or disposal of instrument or material.

Refer to other chapters for additional instruments on this tray setup that are not included in this chapter.



Root Planing

13

Preventive and Sealant Instruments and Bleaching Trays



