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SURGICAL INSTRUMENTS:

Periosteal elevator:

FUNCTION: To detach the periosteum from bone following an incision or to detach the gingival

tissues from around the neck of the tooth prior to placement of extraction forceps

FEATURES: Double ended with one round, blunted end and one pointed end

TRAY SET-UP: Used for most surgical procedures: extractions, gingivoplasty, alveoplasty, cyst removal

CLINICAL APPLICATION: 7A wax spatula or a Woodson #1 plastic instrument is sometimes used if a smaller periosteal elevator is desired.



Straight elevators:

FUNCTION: To loosen tooth or root from bony socket prior to placement of the extraction forceps

FEATURES: Straight handle and working end

Single rounded working end in several sizes

Often referred to by number —common sizes: 1, 34, 301

TRAY SET-UP: Tooth and root extraction



Angular elevators(Cryers):

FUNCTION: To loosen tooth or root from bony socket prior to placement of the extraction forceps

FEATURES: Handles may be either large and straight or T-bar/crossbar design

Pointed working end in several sizes

Paired, right and left

Also called a “flag” elevator

Other common designs: Potts and Crane

TRAY SET-UP: Tooth and root extraction, impaction



Hemostats:

FUNCTION: To securely hold small items, clamp blood vessels, and remove small pieces of tooth

or bone

FEATURES: Angled or straight with locking, scissor-like handles

Common names: Mosquito, Kelly

Available in 43/4₁, 51/2₁, 61/4₁, and 71/2₁



Needle holders:

FUNCTION: To hold suture needle

FEATURES: Similar to hemostat but with a concave area on inside of each beak to allow for curve of suture needle

TRAY SET-UP: Any surgical procedure involving an incision will require placement of sutures

CLINICAL APPLICATION: To avoid needle breakage, place the needle holder on the needle just beyond the suture attachment point and at right angles to the curve of the needle



Suture:

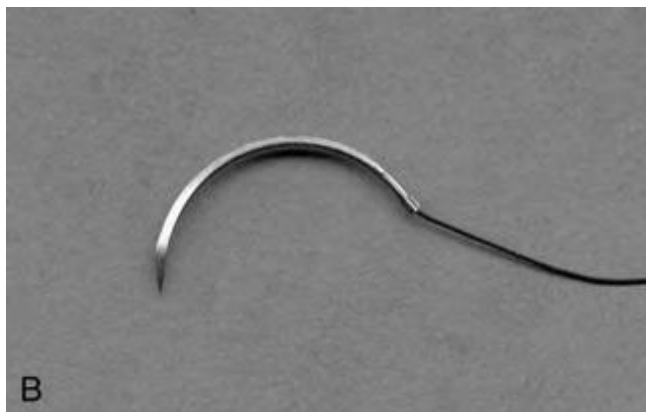
FUNCTION: To close incision site

“Stitches” hold tissues in place during healing

FEATURES: Suture material attached to sterile stainless steel needle
Different sizes and designs of needles

Suture may be absorbable — plain or chromic gut, polyglycolic acid (PGA, Vicryl)
or nonabsorbable — silk, polyester, nylon, polypropylene

Sized by diameter of suture material: 3–0 (000), 4–0 (0000), 5–0 (00000) most
common sizes used in dentistry (smaller number ^L larger diameter)



Scalpel:

FUNCTION: To cut soft tissue—a surgical knife

FEATURES: Often referred to as “Bard-Parker” or “BP”

Individually sterile wrapped for single use

Common blade sizes: #11 (a), #12 (b), #15 (c)

Metal, sterilizable handle for replaceable blades (d)

Disposable scalpel consisting of a plastic handle with attached blade (e)

TRAY SET-UP: Most surgical set-ups: impaction, extraction, biopsy, frenectomy, gingivoplasty, alveoplasty, incision and drainage, and apicoectomy



Rongeurs:

FUNCTION: To cut and contour bone—removes sharp edges of alveolar crest after extractions

for better contour of alveolar ridge; removes exostoses

FEATURES: Scissor-type handle, cutting edges on side and top of beaks

TRAY SET-UP: Multiple extractions, alveolectomy/alveoplasty



Bone file:

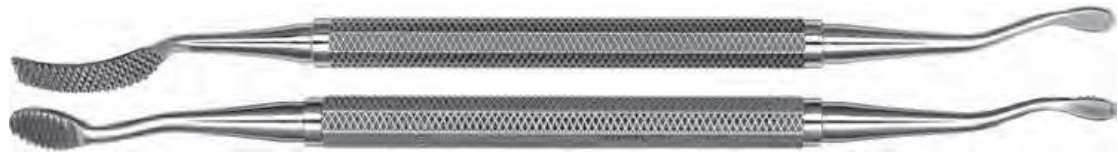
FUNCTION: To smooth bone for better contour of alveolar ridge, often following use of rongeurs

FEATURES: Straight or curved working ends

Crosscut or straight cutting ridges

Double ended

TRAY SET-UP: Multiple extractions and impactions that require bone removal, tori removal, Alveoplasty



Tissue scissors(Iris):

FUNCTION: To cut and remove excess or diseased soft tissue

Also used to cut sutures after knots are tied during suture placement

FEATURES: Straight or curved, 4 $\frac{1}{2}$ and 4 $\frac{1}{2}$

Other common varieties of tissue scissors: Dean, Kelly

TRAY SET-UP: Gingivectomy/gingivoplasty, frenectomy, multiple extractions



Tongue and cheek retractor(Minnesota):

FUNCTION: To hold tongue and cheek away from surgical site

Other common designs: Shuman, Weider

TRAY SET-UP: All surgical procedures



EXTRACTION FORCEPS:

Maxillary anteriors and premolars:

FUNCTION: To remove teeth from bony socket

FEATURES: Straight handle and beaks

Beaks designed to conform to facial and lingual root contour just apical to cervical line

Universal (both beaks same design-fit equally well on facial and lingual) for right and left quadrants

TRAY SET-UP: Extraction



Maxillary first and second molar:

FUNCTION: To remove teeth from bony socket

FEATURES: Each beak has different design to adapt to the maxillary molar roots that differ anatomically on the facial and lingual

Rounded beak contours to lingual root

Pointed beak contours to bifurcation of mesial—buccal and distal—buccal root #18R

and #53R are essentially the same instrument except that #18R has one curved handle while both handles are straight on #53R

TRAY SET-UP: Extraction



Maxillary third molars:

FUNCTION: To remove teeth from bony socket

FEATURES: Bayonet design

Beaks designed to conform to facial and lingual root contour just apical to cervical line

Universal (both beaks same design-fit equally well on facial and lingual) for right and left quadrants

TRAY SET-UP: Extraction



Maxillary overlapping anteriors and root tips:

FUNCTION: To remove teeth, tooth fragments, and root tips from bony socket

FEATURES: Bayonet design

Universal (both beaks same design-fit equally well on facial and lingual) for right and left quadrants

TRAY SET-UP: Extraction



Mandibular first and second molars:

FUNCTION: To remove teeth from bony socket

FEATURES: Beaks designed to conform to facial and lingual root contour just apical to cervical line

Universal (both beaks same design-fit equally well on facial and lingual) for right and left quadrants

Pointed beaks contour to bifurcation area of mesial and distal root

#17 and #15 are essentially the same instrument except that #15 has one curved handle while both handles are straight on #17

TRAY SET-UP: Extraction



Mandibular root tips:

FUNCTION: To remove tooth fragments and root tips from bony socket

FEATURES: Bird beak design

Universal (both beaks same design-fit equally well on facial and lingual) for right and left quadrants

TRAY SET-UP: Extraction



Mandibular third molars:

FUNCTION: To remove teeth from bony socket

FEATURES: Bayonet design

Beaks designed to conform to facial and lingual root contour just apical to cervical line

Universal (both beaks same design-fit equally well on facial and lingual) for right and left quadrants

TRAY SET-UP: Extraction

