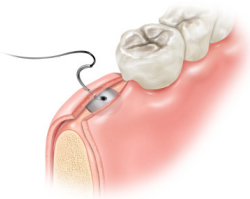
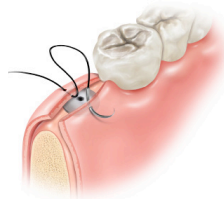


SUTURE TECHNIQUES

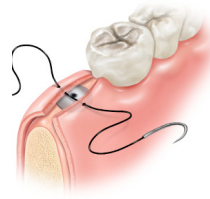
Interrupted Sutures used for tension free mobile flaps.



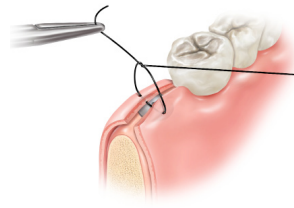
a.
The first step consists of passing the needle through the first flap from the outside inwards. Where there is one movable flap and one immovable flap, the needle should pass through the movable flap first.



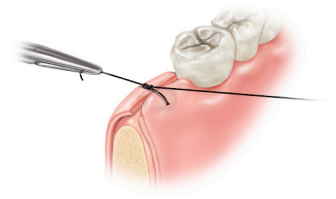
b.
The needle pierces the second flap from the inside out. Approximately the same penetration distance of the flap must be maintained so as to avoid asymmetry between the two flaps, which might compromise the esthetic results.



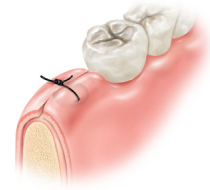
c.
The depth of penetration and the distance from the margin must be evaluated for each case. For healthy tissues, the depth and distance should be between 1.5-2mm from the free margin. For more fragile tissues, the distance may be increased.



d.
The single detached stitch is closed with a surgeon's knot, which should not be placed on the line of the incision but lateral to it.

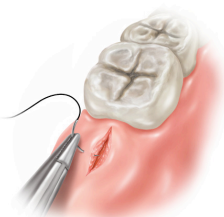


e.
f.

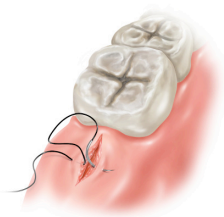


Mattress Suture: resist pulls caused by muscle attachment

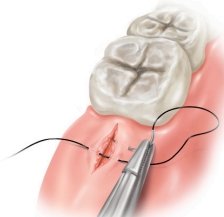
Horizontal Mattress



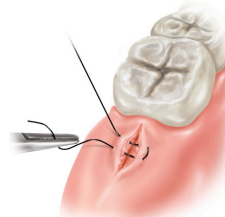
a.
The clinician should pierce the flap on the external mucosal side with the needle approximately 3 mm from the incision line.



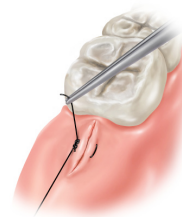
b.
The needle is passed across the free space between the two flaps and pierces the inner mucosal surface of the second flap with the same distance from the incision line (3 mm) to ensure uniform traction.



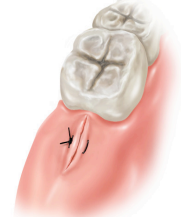
c.
The clinician turns the needle on a plane parallel to the free margin of the flap and pierces the second flap from the external mucosal side inwards, maintaining a distance of 2 mm to 3 mm from the initial exit point.



d.
The needle is passed across the free space between the two flaps and pierces the inner mucosal surface of the first flap with the same distance (3 mm) from the incision line.

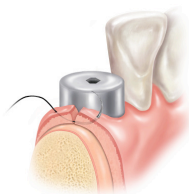
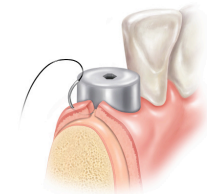


e.
A full surgeon's knot is used to secure the suture.

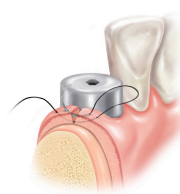
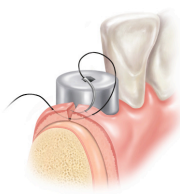


f.
A properly executed full surgeon's knot provides stability to the horizontal mattress suture.

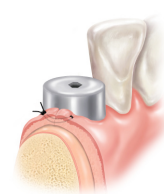
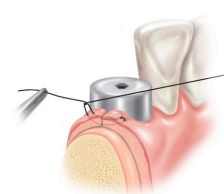
Vertical Mattress



a.& b.
(a) and (b) The first step in the "far-far, near-near" vertical mattress suture involves the clinician placing the needle in the needle driver in a forward position, then passing the suture ("far-far") through both of the wound edges (at approximately 6 mm from the wound edges).



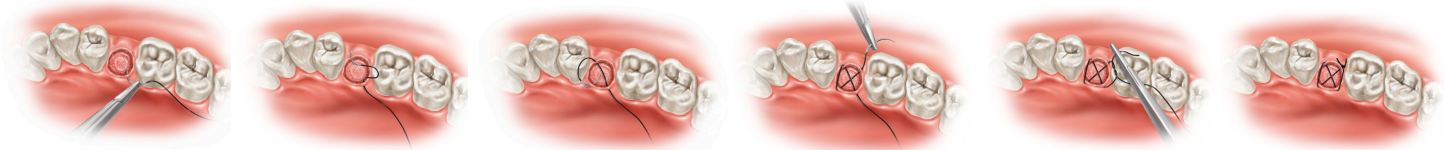
c.& d.
(c) and (d) Next, the needle is positioned in reverse in the driver so that the "near-near" suture placement can occur, less deeply (1 mm-2 mm), and similarly within 1 mm-2 mm of the edges of the wound.



e.& f
(e) and (f) The clinician ties the suture knot on the same side of the wound where the suturing began, over the wound edge. A row of such vertical mattress sutures achieves eversion of the wound edge.

Figure 8 Suture

Used for suturing extraction sockets & when suturing on the lingual aspect of the mandibular molars especially in patients with a gag reflex or a large tongue.



- The needle passes through the interdental space without piercing the tissue, mesial to the point where it is intended to place the first stitch.
- The second step begins exactly as the first, by the clinician's passing the needle and thread through the proximal interdental space of the adjacent tooth mesially without piercing the soft tissues. The direction of the needle is the same as it enters the palatal flap, the clinician taking care to pierce it approximately 2 mm distal to the exit hole of the first thread and emerging some 2 mm mesial of this hole.
- Needle and thread pass external to the palatal flap, and the needle pierces the flap, at least 2 mm to 3 mm apical of the apical edge of the area where the graft was harvested.
- The thread is crossed over and emerges again in the distal interdental space or, in any case, as in this illustration, distal to the tooth to be treated.
- The thread is again crossed over and the needle passes through the distal interdental space without piercing the soft tissues.
- A full surgeon's knot tied on the vestibular face of the tooth provides the second point of anchorage. It is clear that the traction of this suture acting on the two anchorage points, which are almost completely inextensible (periosteum and tooth), enables compression to be exercised on the deeper layers.

Osteolife Biomedical Surgical Sutures

SUTURE GUIDE *for dental procedures*

	3-0 Vilet	4-0 Vilet	5-0 Vilet	3-0 Monotex	4-0 Monotex P-3 Needle	4-0 Monotex Fs3 Needle	5-0 Riverpro
Extraction/Socket Preservation	✓			✓			
Implant Placement	✓	✓		✓			
Sinus Lift	✓	✓	✓				
Block Graft				✓		✓	
Ridge Split		✓		✓		✓	
Gingival Recession			✓				✓
Free Gingival Graft		✓	✓				
Stage II Implant Surgery Non-Aesthetic		✓		✓		✓	
Stage II Implant Surgery Aesthetic		✓			✓	✓	✓

Resorbable



Vilet 3-0 Polyglactin FS2 Needle



Vilet 4-0 Polyglactin FS2 Needle



Vilet 5-0 Polyglactin FS2 Needle

Non-Resorbable



Monotex 4-0 PTFE P-3 Needle



Monotex 4-0 PTFE FS3 Needle



Monotex 3-0 PTFE FS2 Needle



Riverpro Monofilament P3 Needle