

## WORKSHOP No.4

# Needles, Suture Materials And Knots Used In Oral Surgery Procedures



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**Introduction:** The paramount goal of soft tissue surgery is closure of wound flaps, in the absence of tension on the flaps, which will lead to optimal wound healing. Oral surgical procedures that require flap manipulation such as those used with traditional oral surgery procedures, dental implantation, periodontal therapy, hard and soft tissue regeneration, and the excision of pathologic tissue require excellence in execution and a thorough understanding of the various techniques of surgery, suturing and the materials currently available to ensure the desired clinical results.

**Aim:** Dental surgery involves the creation of a wound and necessitates closure of this wound to allow healing and to achieve the surgical objective. The primary objective of wound closure is to position and secure surgical flap through suturing to promote optimal healing.

### Needles

The surgical needle comprises three parts: the needle point, the needle body and the swaged (press-fit) end. Suture needles are usually classified according to their curvature, radius and shape. The most commonly used suture needles in dentistry are the 3/8 and 1/2 circle needles.

### Suture thread

Tensile strength is an important quality when selecting which thread is appropriate for the intended use. Tissue biocompatibility, ease of tying and a thread type that permits minimal knot slippage also influence selection. Adequate strength of the suture material will prevent suture breakage, and proper suture knots for the material used will prevent untimely untying or knot slippage.

### Knots

Surgical knot tying is an important component of the art of suturing. It is essential for knot security and to prevent untimely knot untying that the appropriate surgical knot be used for the specific suture material being secured.

### Conclusion

Many varieties of suture material and needles are available to the oral surgeon. The choice of sutures and needles is determined by the location of the lesion, the thickness of the mucosa in that location, and the amount of tension exerted on the wound. Regardless of the specific suture and needle chosen, the basic techniques of needle holding, needle driving, and knot placement remain the same.

Registration for the course on the following mail:

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Program (group from 8 to 10 students)

- lecture of oral surgery armamentarium for oral surgery incision, flap design and suturing (needles, suturing materials and knots).
- Demonstration of suturing technique: simple loop, interrupted suture, horizontal and vertical mattress suture.



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