Suture Concepts

• Objectives
  – wound closure without undue tension
  – control bleeding
  – provide proper flap approximation and position

• Suture Materials
  Silk and synthetics are used most often
  • Silk
    Has a strong tissue reaction
    Has a wicking characteristic
    Non-resorbable
    Must be removed in 7 days
    Does not slip

• Suture Materials
  • Monofilament (Proline, Gor-Tex, Nylon)
    Low tissue reaction
    Non wicking
    Can be retained over 14 days
    Good in areas of grafting
    Has a tendency to slip, hard to tie

• Resorbable Suture (Gut, Vicryl, Dexon)
  Moderate tissue reaction
  Slow hydrolysis 60-90 days

*Instructor’s Choice: 4/0 Chromic Gut 3/8 C6 Needle (Look #558B)

• Suture needles
  Use 3/8 reverse cutting to prevent tearing through tissue
Suturing Principles

- Close knots firmly, don’t blanch tissue
- Use double surgeons knot
- Use reverse cutting needle
- Grasp needle just ahead of swage
- Suture from movable to fixed tissue
- Start suture 3mm from tissue margin or base of each papilla

Suturing Techniques

- Interrupted Suture
  
  Most widely used method

  Can adjust tension on each suture for accurate tissue margin placement

  Losing one will not loosen entire flap

  Can be circumferential, figure-eight, vertical mattress
Begin on facial in order to place the knot on the facial. Make needle puncture at right angles to and through the skin surface.

Second puncture is on the lingual. The gingiva is supported by the underlying bone as the needle punctures at right angles to the skin surface.

Knot is tied on the facial. Suture forms a sideways figure eight through the interproximal.
Suturing Techniques

- Vertical Mattress
  - Keeps suture material above interproximal tissues
  - Recommended where grafts are placed
  - Start and end in keratinized tissue
Suturing Techniques

- Continuous Sling
  - Advantages
    - Fewer knots for patient comfort and debris accumulation
    - Teeth anchor flap
    - Precise flap placement possible
    - Distributes forces on tissue
  - Disadvantages
    - Entire suture can loosen if one area breaks
    - Suture removal is more difficult
Continuous Sling Suture
Continuous Sling Suture cont'd