Total Knee Arthroplasty: Cement Technique
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CEMENTED TKA

- Gold standard for TKA
- To obtain durable results you need
  - Meticulous soft tissue balancing
  - Careful bone preparation
  - Rigid fixation of components which is most often done with cement
  - Cement the keel
Various types of cement are available

- Variable elastic modulus, compressive and fatigue strength
- No consensus with respect to type of cement used

Antibiotics in cement

- Pre-mixed (gentamycin, tobramycin, cefuroxime)
- Mix at time of procedure (Vancomycin)
PEARLS

- Use of tourniquet - variable
- Pulsatile lavage – clear debris and blood
- Dry boney surface is essential to promote cement interdigitation
- Use vacuum mix to reduce porosity of cement
- Implant all 3 components at the same time
  - Cement the keel
PEARLS

- Cement can be applied with a cement gun or by hand packing
- Place doughy cement on dry bone and on prosthetic components
- Cement tibia, femur and patella
- Hold knee in full extension
- Inject knee with anesthetic solution while cement hardens
- Remove excess cement
REFERENCES


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