# APPENDIX H – Surgical Training Course

# Buechel – Pappas™ Total Ankle Surgical Training Course

## *Course Objectives:*

This course is designed to train foot and ankle surgeons in the concepts and time-tested techniques used to implant the Buechel-Pappas™ total ankle replacement. Pre-operative, intra-operative, post-operative considerations, as well as complications and management, will be presented and discussed in detail.

## *Proposed Faculty:*

- Gregory C. Berlet MD, Columbus, OH
- Frederick F. Buechel, Sr., MD, South Orange, NJ
- Frederick F. Buechel, Jr., MD, Naples, FL
- David Keblish, MD, Jacksonville, FL
- Michael J. Pappas, Caldwell, NJ

The Buechel – Pappas™ Total ankle Surgical Training Course is a two-day course. Day one consists of power point presentations; Day two dry bone laboratory workshops to hone surgical skills in hands-on training. The training course will include:

## *Pre-op Considerations:*

- Patient Selection/ Indications
  - Contradictions
  - Peripheral Neuropathy
  - AVN
  - What cases not to do?
- History and Physical Examination
  - Negative history of metal sensitivity – no treatment
  - Positive history of metal sensitivity or if in doubt of possible metal sensitivity, undergo allergy testing
  - Potential metals involved
    - Nickel
    - Stainless steel
    - Co-Cr-Mo
    - Titanium
    - Aluminum
    - Vanadium
- Allergy Testing
  - Set-up appointment with Allergy Physician (e.g. James Till, MD, PhD, Professor of Medicine, Mayo Clinic, Rochester, MN).

- Immediate-type hypersensitivity (i.e. Antibody blood test)
- Delayed-type hypersensitivity (i.e. patch-type skin test)

Review of allergy testing with Allergy Physician

- Negative – no implant metal contraindication
- Positive – avoid sensitizing metal in choosing an orthopaedic implant.

❖ Sub-talar fusions and TAA
Timing
Staging

❖ Deformities – what can be corrected
**Pre-op**
Multi Joint Involvement
Staging Procedures
**Post-op**
Late deformity, i.e. progression to varus
Steroids
Osteoporosis

## *Intra-op Considerations:*

❖ Soft Tissue Balancing Techniques
Gastro-slide vs. TAL
When?
Ligament Tension – Deltoid Release
Varus/Valgus Ankle

❖ Syndesmosis
Fusion? Leave Alone!

❖ Distraction
How Much?
Liagment end Point?

❖ Talar Bone Spurs
Impingement
Use bone wax
Chamfer cut talar edges

❖ Talar Component Positioning
Shift M/L to correct Varus/Valgus deformity?
When?
Position of talar templates
Correct use of Fluoroscopy

❖ Tibial Component Positioning

Position of Tibial cutting guide
Removal of distal tibia
Management of the tibial window

## *Complications:*

- Oversize bone cuts
- Overstuffed joint
- Malleolar Fractures - How to avoid them?
- Fusion Takedowns
  Indications

## *Post-op Considerations:*

- Revision
  Tibial
  Talar
  Polyethelene
  Entire Implant

- Failure
  Salvage
  Fusion Techniques
  When to amputate?

- Post-op protocol
  What?
  Where?

- Wound Management
  Use of Nasal Oxygen
  Skin Considerations
  Infections

- Gait after TAA

## *The Future:*

- System Upgrades
- Custom components
- Outcome Studies