Biomechanics - Midfoot
Consider as 3 columns:
• medial/middle/lateral
• ROM: lateral > medial > middle
• Lateral column = compensatory motion, accommodates to uneven ground

Biomechanics - Midfoot
• Nonessential vs. essential joints
  – Lateral column is “essential” as compared to medial or middle columns (Hansen)

Nonunion
• Can confirm with CT

Lateral Column Arthroplasty
• Preserve collateral and plantar ligaments as resection performed

Lateral Column Arthroplasty
– Create “anchovy” from peroneus tertius or long toe extensor
  – Temporary pin fixation

Ceramic Interposition Arthroplasty
• Dowel resection of joints
  – Burr initially
  – Use flouro to confirm center of the joint
Ceramic Interposition Arthroplasty

- Dowel resection of joints
  - Power spherical rasp

- Sizers available
  - 9-14 mm
  - Distract but maintain cortical rim

Lateral Column Arthrosis (or nonunion)

**Arthrodesis or Arthroplasty?**
- Lateral column tarsometatarsal interpositional arthroplasty is a simple procedure to perform
- Avoids the lengthy recovery of arthrodesis and its risks of nonunion, failed hardware and gait disturbance

Case #1

- Spacers inserted
- 11mm most common

Slight distraction; preserve cortical rim/coverage

References: