GOALS:
- Interposition arthroplasty is designed as an attempt to delay fusion in patients that traditional teachings would point towards a fusion.
- This was designed to offer an option to those patients with Grade III hallux rigidus who did not want fusion and were not candidates for implant arthroplasty.
- Since the procedure is not curative important points include:
  - Do not burn bridges to later procedures.
  - Do not imply this is the last procedure the patient will need.
  - Honestly share the limited supportive research.

IMPORTANT TECHNIQUE TIPS:
1. Approach should be similar to future revision options. I choose a dorsal approach as this is my 1st MTP fusion approach.
2. Contour the 1st MTP head, removing spurs with rongeur, shaping the head with reamers but preserving the subchondral plate.
3. Release the sesamoid adhesions while preserving the plantar plate.
4. Mini oblique keller to decompress the joint, as necessary.
5. Anchor the graft to the 1st metatarsal head securely. Motion between graft and metatarsal head is the culprit if you see foreign body reaction.

SPECIFIC DISCUSSION POINTS WITH YOUR PATIENTS:
- Source of tissue is autograft, allograft or xenograft.
- Proposed benefit of allograft / xenograft is to limit local tissue source for preservation of later options.
- Downside is allograft risk and some risk foreign body reaction.

RISKS:
- Normal risks of elective surgery (infection, neurovascular damage, wound healing). There are no higher risks of these with this procedure.
- Risk of tissue transplant (disease transmission, rejection).
- Need for future surgery.

BENEFITS:
- Pain improvement.
- Motion preservation (modest improvement).
- Delay in fusion.
- Preserve options for the future.

SALVAGE:
- 1st MTP fusion using conventional techniques. Interposition bone graft has not been necessary.

RESEARCH SUPPORT / REFERENCES: Limited – case series only
- Short term follow up (avg 12.7 months) of interposition arthroplasty with acellular dermis
- Limited numbers – 9 patients
- Level 5 observational study
- High level of clinical success with improvement of AOFAS scores (85), preservation of push off strength

- Cohort of the original series from Berlet et al FAI 2008
- 5 year minimum follow up (average 5.4 years)
- average AOFAS score = 65.8 (pre op 38)
- no conversion to fusion
- conclusion: early results are stable for a minimum of 5 years

- Review article
- Outlining several different techniques of interposition arthroplasty
- Good overview with conclusion that level 5 data supports use of technique but data lacking to provide clinical guidelines

**PRACTICAL INFORMATION:**
- clinical results are OK, most patients happy
- x-rays are not pretty. Reaming of the metatarsal head creates a nice shape but the visual joint space is minimal – so treat the patient not the x-ray