Axially stable fixation in the foot
Variable Angle Stable Axis

- Locking plate concept
- Titanium screws lock into titanium plate
- 15 degrees freedom of direction in each direction
Screws

- Titanium alloy
- Locking (grey)
- Non-locking (gold)
- 3.5 mm
- 2.7 mm
• Star type screwdriver
• Specific to screw diameter
Plates

- Pure titanium
- Anodised
- Thin (1 – 1.5mm)
Where to use axially stable plate fixation in the foot

- Os Calcis
- Inter-tarsal, C-C, T-N arthrodeses
- Lisfranc joint
- Lapidus fusion, 1st TMTJ
- Metatarsals
- 1st MTP joint
Locked plating of os calcis

• Does it allow earlier PWB?
• Does it maintain reduction?
• Does it improve functional outcome?
44y.o. window-cleaner, fall from ladder
Isolated closed closed injury
Locking plate
No graft

6 weeks post-op
Evidence

• Richter et al, Foot Ankle Int 2005
  – Plates with locked screws provide greater stability in cyclical loading

• Redfern et al, Foot Ankle Int 2006
  – In a cadaver model locked plating did not provide a biomechanical advantage
Compression plating

- Eccentric filling of central screw holes can compress across fracture or joint
Drill

- Yellow for 3.5 mm screws
- Black for 2.7 mm screws
- Standard neutral guide or compression guide
Measure
Select appropriate screwdriver +/- holding sleeve
“Digital Torque Wrench”
Calcaneal Plates
Lisfranc Stabilisation