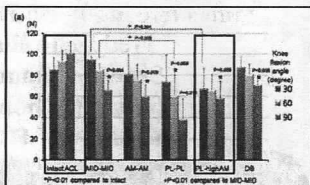


Risk of Graft Re-Rupture

Non-Anatomic ACL Reconstruction:

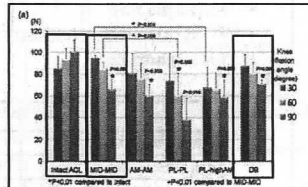
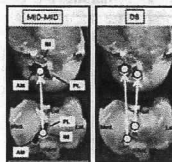
- Non-anatomic ACL reconstruction results in graft forces lower than normal:
- Exposes other joint structures to increased loads



Risk of Graft Re-Rupture

Anatomic ACL Reconstruction:

- Anatomic ACL reconstruction results in graft forces that are closer to normal ACL forces
- Exposes anatomically placed graft to increased risk of injury



Return to Sports Criteria

Consider:

- Time/graft healing
- Knee function:
 - ROM
 - Laxity
 - Strength
- Functional tests

Graft Healing

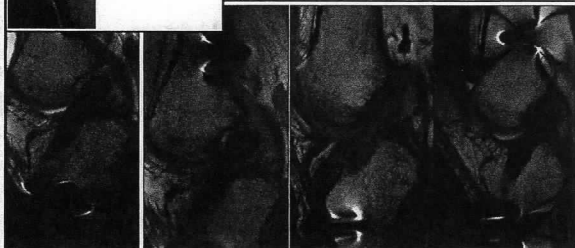
Phases:

- Synovial envelopment of graft & avascular necrosis
- Revascularization, cellular proliferation & collagen formation
- Normal vascular pattern, remodeling & maturation of graft

Time Frame Not Well Known & Likely Variable Between Individuals

Dark Quad Tendon Pre-Op

ACL Quad Tendon Graft Healing



Time Zero

1 month PO

6 months PO

2 years PO

Return of Muscle Function

Preliminary Data:

- Isometric strength test with knee at 60 degrees of flexion



| | 6 Months | 12 Months |
|-----------------|----------|-----------|
| Quad Index | 66.5% | 82.8% |
| Hamstring Index | 90.7% | 101.1% |