



**3rd Advanced Course on
Knee Surgery**
January 17th - 22nd 2010

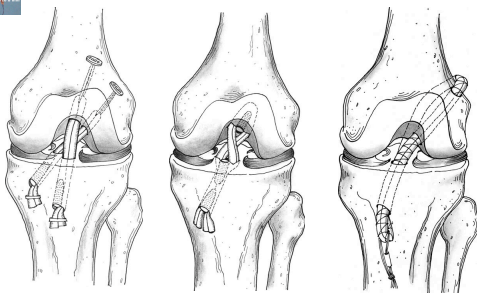
Graft selection in DB



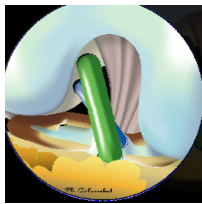

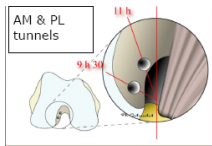
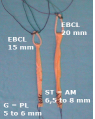
ICONE
Burt Klos MD PHD
ICONE Orthopaedics - Sports Trauma



Hamstring small graft sizes 5-6-7 length usually 12 cm
Can be tripled



Double bundle tunnels

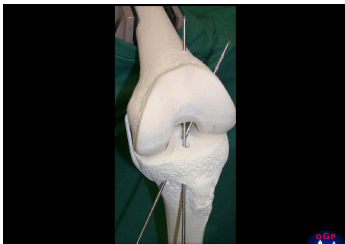





epcl 15 mm
EBC1 20 mm
G = PL 5 to 6 mm
G = AM 6,5 to 8 mm

AM & PL tunnels
11h
9h30

DB /Transtibial

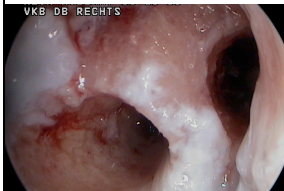
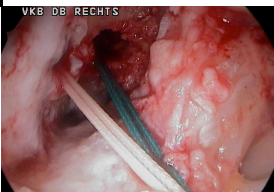
- PL
- AM
- PTB
- Ham



• Courtesy J Eichhorn De

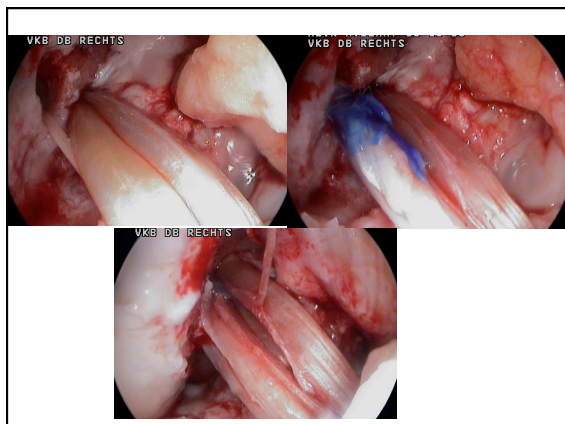
DB AM portal

- Different angles of insertion .
- Different angles of pull through
- A flexible graft is easier

VKB DB RECHTS

VKB DB RECHTS



Khan Amis RSA follow up hamstring vs PTB CORR 2006

Alternative grafts

- Allograft
- PTB split one side / two sides
- Artificial ??
- Xenograft ?? (ACL Study group K Stone, arthroscopy 2007)

patents - Windows Internet Explorer

http://openor-biologica.com/patents.html

stand Beveken Beeld Favorieten Extra help

patents

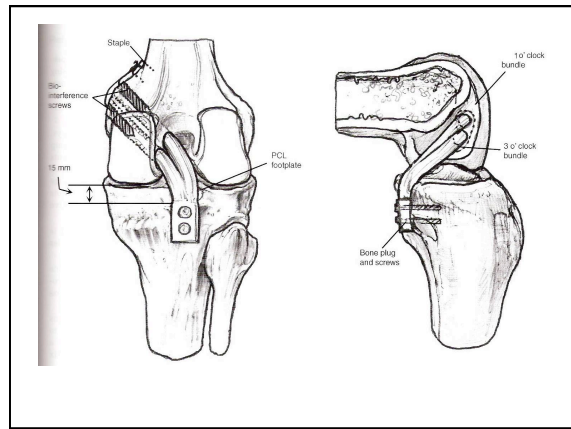
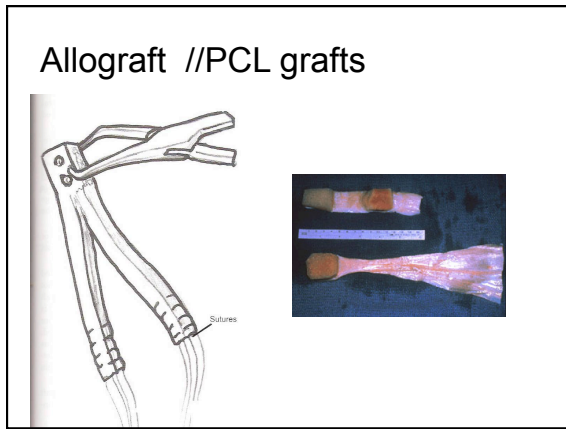
Intellectual Property

1. 5.865.849 Meniscal Xenografts Kevin R. Stone
2. 5.984.858 Meniscal Proterografts Kevin R. Stone
3. 6.046.376 Meniscal Xenografts Kevin R. Stone; Uri Gali
4. 6.093.204 Meniscal Heterografts Kevin R. Stone
5. 5.902.238 Anterior Cruciate Ligament Heterografts Kevin R. Stone
6. 6.119.206 Anterior Cruciate Ligament Xenografts Kevin R. Stone
7. 6.216.440 Anterior Cruciate Ligament Xenografts Kevin R. Stone; Uri Gali
8. 6.402.783 Anterior Cruciate Ligament Xenografts Kevin R. Stone
9. 5.182.915 Articular Cartilage Heterografts Kevin R. Stone
10. 5.844.755 Articular Cartilage Xenografts Kevin R. Stone
11. 6.049.625 Articular Cartilage Xenografts Kevin R. Stone; Uri Gali
12. 5.932.927 Articular Cartilage Heterografts Kevin R. Stone
13. 5.913.900 Substantially Native Meniscal Cartilage Heterografts Kevin R. Stone
14. 6.108.860 Soft Tissue Xenografts Kevin R. Stone; Uri Gali
15. 6.972.841 Bone Xenografts Kevin R. Stone
16. 6.287.708 Proteoglycan-Reduced Soft Tissue Xenografts Kevin R. Stone
17. 6.455.209 Proteoglycan-Reduced Soft Tissue Xenografts Kevin R. Stone
18. 6.231.608 Aldehyde and Glyoxalase-Treated Soft and Bone Tissue Xenografts Kevin R. Stone
19. 6.383.732 Xenograft Heart Valves Kevin R. Stone
20. 7.084.187 Substantially Non-immunogenic Heartable Collagen Kevin R. Stone
21. 10.969.044 Anterior Cruciate Ligament Xenografts Kevin R. Stone
22. 10.884.415 Soft Tissue Xenografts Kevin R. Stone
23. 10.929.661 Bone Xenografts Kevin R. Stone
24. 10.914.638 Xenograft Heart Valves Kevin R. Stone
25. 10.150.670 Sterilized Xenograft Tissue Kevin R. Stone; Thomas J. Turek
26. 10.476.006 Subcutaneous Xenografts Kevin Stone B.
27. 10.126.613 Xenograft Bone Matrix for Orthopedic Applications Kevin R. Stone; Thomas J. Turek
28. 10.517.063 Glatopiridase-Treated Prosthetic Devices Kevin R. Stone

PTB alternative DB femur

Pujol , Beaufils , KSSTA ,2010

PL bundle fixed outside
in full extension



Conclusion

- Graft DB more likely hamstring but other options are open !