Table of Contents:

SECTION I - ACL INJURY

Part A - Anatomy, Physiology, Biomechanics, Epidemiology

1. The Anatomy and Biomechanics of the ACL - James S. Starman, Mario Ferretti, Timo Jarvela, Anthony Buoncristiani, Freddie H. Fu

2. Mechanisms of Non-Contact ACL Injuries - William E. Garrett, Jr, Bing Yu

3. Risk and Gender Factors for Non-Contact ACL Injury – Letha Y. Griffin, James Kercher

4. The Incidence of ACL Injury as a Function of Gender, Sport, and Injury Reduction Programs – Chadwick Prodromos, Yung Han

5. Analysis of ACL Injury Prevention Programs for the Female Athlete – Holly J. Silvers, Robert H. Brophy, Bert R. Mandelbaum

Part B - Clinical

6. Diagnosis of ACL Tear – Chadwick Prodromos, Brian Murphy

7. The Non-Operative Treatment of ACL Deficient Patients – Elias Tsapis, Anastasios Georgulies

8. Arthroscopy Following ACL Reconstruction – Nicholas E. Ohly, John F. Keating

SECTION II - ACL RECONSTRUCTION

9. The Economics of ACL Reconstruction – Chadwick Prodromos, Brian Joyce

Part A - GRAFT MECHANICAL PROPERTIES

10. The Relative Strengths of ACL Autografts and Allografts – Chadwick Prodromos, Brian Joyce


Part B - AUTOGRAFT HARVEST TECHNIQUES

12. Hamstring Harvest Technique for ACL Reconstruction – Don Johnson

13. Posterior Mini-Incision Hamstring Harvest Approach for ACL Reconstruction-Chadwick Prodromos

14. Technique for Harvesting a Mid-Third Patella Tendon Graft For ACL Reconstruction-Bertram Zarins

15. The Central Quadriceps Free Tendon for ACL Reconstruction – John P. Fulkerson

Part C - HAMSTRING GRAFT CONFIGURATIONS

16. Hamstring ACL Reconstruction with a Quadrupled or Tripled Semitendinosus Tendon Graft – Alberto Gobbi, Ramces Francisco

17. 2ST/2Gr, 4ST and 3ST/2GR Techniques: and Deciding Which
Hamstring Configuration to Use - Chadwick Prodromos

**Part D - PRINCIPLES OF TUNNEL FORMATION**

Sub-Part i - Single Femoral Tunnel Formation

18. Use of the Transtibial Technique Avoids PCL and Roof Impingement of an Anterior Cruciate Ligament Graft - Stephen M. Howell


20. The Retrodrill Technique for ACL Reconstruction - G. Puddu, G. Cerullo, M. Cipolla, V. Franco, E. Gianni

21. Femoral Tunnel Placement to Restore Normal Knee Laxity After ACL Reconstruction – Andrew A. Amis

Sub-Part ii - Double AM and PL Femoral Tunnel Formation

22. Anatomic Double-bundle ACL Reconstruction Procedure Using the Semitendinosus and Gracilis Tendons - Kazunori Yasuda

23. Double Stranded Graft with Four Tunnels for Anatomic ACL Reconstruction – Pascal Christel, Philippe Colombet, James Robinson, Jean Pierre Franceschi, Patrick Djian, Abdou Sbihi, Guy Bellier

24. Anatomic Double Bundle ACL Reconstruction with a Semitendinosus Hamstring Tendon Graft - Alberto Gobbi, and Ramces Francisco

25. Anatomic Double Bundle Reconstruction of the ACL - Anthony Buoncristiani, Fotios Paul Tjoumakaris, James S. Starman, Freddie H. Fu

Sub-Part iii - Notchplasty and Navigation

26. The Notchplasty - Mark R. Hutchinson


**Part E - FIXATION BIOMECHANICS**


29. High Stiffness, Slippage Resistant Cortical Fixation Has Many Advantages Over Intratunnel Fixation - Stephen M. Howell

30. Tibial Fixation for ACL Hamstring grafts: Ten techniques that improve fixation - Lonnie E. Paulos

**Part F - FIXATION DEVICES AND METHODS SOFT TISSUE GRAFT FEMORAL FIXATION**

Sub-Part i - Suspensory Cortical

31. Endobutton ACLR Femoral fixation – Chadwick Prodromos
32. Cortical Screw-Post Femoral Fixation Using Whipstitches, Fabric Loop, or Endobutton: The Universal Salvage - Chadwick Prodromos

33. EZLOC Femoral Fixation Of a Soft Tissue Graft- Stephen M. Howell
   Sub-Part ii - Cross Pin

34. Stratis ST Femoral Fixation System® - Paul Re, Tony Wanich, Russell F. Warren

35. Pinn-ACL® Crosspin System for Femoral Graft Fixation - Arturo Almazán-Díaz, Donald H. Johnson

36. TransFix® C. Femoral Fixation - Brian P. McKeon


38. ACL Reconstruction Utilizing the Rigidfix Femoral Sided Fixation-John Richmond, Michael Kuhn
   Sub-Part iii - Interference Screw Based

39. Hamstring Tendon Interference Screw Fixation - Michael Wagner, Andreas Weiler

40. Anatomic Retroscrew ACL Fixation: Single Bundle and Double Bundle Anterior Cruciate Ligament Reconstruction with Retroscrew Biointerference in a Single Femoral Socket - Steven Gorin, Craig D. Morgan, David Caborn

Part G - SOFT TISSUE GRAFT TIBIAL FIXATION

Sub-Part i - Cortical

41. Fastlok Device for Tibial Fixation of a Tripled or Quadrupled Semitendinosus Autograft for ACL Reconstruction - Alberto Gobbi, Ramces Francisco

42. Whipstitch-Post Tibial Fixations for ACL – Chadwick Prodromos, Aaron Hecker

43. Washerloc and Bone Dowel Tibial Fixation of a Soft Tissue Graft - Stephen M. Howell

44. Double Spike Plate (DSP): cortical fixation device enabling graft fixation under optional tension – Konsei Shino
   Sub-Part ii - Interference Screw Based

45. ACL Hamstring Graft Fixation with Bioscrew® Xtralok™- Tibial Fixation Device- Don Johnson

46. Intratunnel Tibial Fixation of Soft Tissue ACL Grafts: Graft Sleeve and Tapered – Charles H. Brown, Nader Darwich

47. Hamstring ACL Reconstruction with IntraFix Tibial Fastener – Joseph Sklar, Charles H. Brown

Part H – BONE-PATELLAR-TENDON-BONE FIXATION: FEMUR OR TIBIA

49. ACL Reconstruction using a Miniarthrotomy Technique with either an Ipsilateral or Contralateral Autogenous Patellar Tendon Graft - K. Donald Shelbourne

50. Bone-Patella-Bone ACL Reconstruction Using the Endobutton Continuous Loop BTB Fixation System - Stuart E. Fromm

Part I - NEWER INTERFERENCE SCREW MATERIALS

51. The Milagro Osteoconductive Interference Screw for ACL Reconstruction - F. Alan barber

52. Improving Non-degradable Interference Screw Properties by Combining Polymer Partners - Timo Järvelä, Janne T. Nurmi, Antti Paakkala, Anna-Stina Moisala, Auvo Kaikkonen, Markku Järvinen

Part J - GRAFT TENSIONING

53. Graft Tensioning in ACL Reconstruction: Establishing the Minimum Acceptable Tension – Kazanori Yasuda

54. Tensioning ACL Grafts: Avoiding Over-Tensioning – Lonnie E. Paulos

Part K - LIGAMENTIZATION AND GRAFT-TUNNEL HEALING

55. Graft Remodeling and Ligamentization after ACL Reconstruction - Scheffler SU, Unterhauser FN, Andreas Weiler

56. Graft Tunnel Healing - Giuseppe Milano, Laura Deriu, Carlo Fabbriciani

Part L - REVISION ACL RECONSTRUCTION

57. Revision ACL Reconstruction Using Autologous Hamstring Tendons - Andreas Weiler, Michael Wagner

58. Revision ACL Reconstruction - Neil P. Thomas, Hemat G. Pandit

Part M - ACL FOR SKELETALLY IMMATURE PATIENTS OR PARTIAL TEARS

59. ACL Reconstruction in Skeletally Immature Patients - Allen F. Anderson, Christian N. Anderson

60. ACL Reconstruction of Partial Tears: Reconstructing One Bundle - Fotios Paul Tjoumakaris, Anthony Buoncristiani, James S. Starman, Freddie H. Fu

Part N - TREATMENT OF ASSOCIATED LIGAMENT INJURIES OR CARTILAGE DEFICIENCY

61. ACL combined with MCL, PCL, and/or LCL Injury - K. Donald Shelbourne

62. Treatment of Meniscus Tears with ACL Reconstruction - K. Donald Shelbourne and Tinker Gray

63. ACL Reconstruction Combined with HTO, ACI, Microfracture, Osteochondral and/or Meniscal Allograft Transplantation – Chadwick Prodromos, Brian Joyce

Part O - REHABILITATION

64. ACL Strain Behavior During Rehabilitation Exercises - Petteri Kousa,
James R. Slauterbeck, and Bruce D. Beynnon

65. Principles of ACL Rehabilitation - K. Donald Shelbourne, Tinker Gray

66. The Stability-Conservative ACL Reconstruction Rehabilitation Protocol - Chadwick Prodromos

67. Hamstring Strength and Regeneration Following Harvest for ACL Reconstruction - Andrew Riff, Mark Miller

68. Proprioception and ACL Reconstruction- Julian A Feller, Kate E Webster

Part P - STABILITY RESULTS

69. Stability Results After ACL Reconstruction – Chadwick Prodromos, Brian Joyce

Part Q - COMPLICATIONS

70. Infections in ACL Surgery – Charalampos G. Zalavras, Michael Patzakis

71. Allograft Complications and Risk Factors – Chadwick Prodromos, Brian Joyce

72. Stiffness: Prevention and Treatment -Anastassios Karistinos, Lonnie E. Paulos, Walter Lowe

73. Osteoporosis after ACL Reconstruction? – Lars Ejerhed, Jüri Kartus

74. Tunnel Widening after ACL Reconstruction - Chadwick Prodromos, Brian Joyce

75. Numbness: Saphenous Nerve – Tomoyuki Mochizuki, Keiichi Akita, Takeshi Muneta

76. Hardware complications after ACL reconstruction – Robert H. Brophy, Robert G. Marx

77. Vascular complications after ACL reconstruction - R.P.A. Janssen

78. Fracture Complications after ACL Reconstruction - Kai Mithoefer, Thomas J. Gill

79. Anterior Knee Problems after ACL Reconstruction-Michael E. Hantes, Apostolos Dimitroulias

Part R – GAIT ANALYSIS AND TISSUE ENGINEERING

80. Gait Analysis in ACL Deficient and Reconstructed Knee - Nicholas Stergiou, Stavros Ristanis, Constantina Moraiti, Anastasios D. Georgoulis

81. Growth Factors and Other New Methods for Graft Healing Enhancement - Harukazu Tohyama, Kazunori Yasuda