

Thomas P. Branch MD – Research

Selected peer-reviewed publications (in chronological order)

Branch T, Hunter R, Reynolds P. Controlling anterior tibial displacement under static load: a comparison of two braces. *Orthopedics*. 1988; 11(9):1249-1252.

Branch TP, Hunter R, Donath M. Dynamic EMG analysis of anterior cruciate deficient legs with and without bracing during cutting. *Am J Sports Med*. 1989; 17(1):35-41.

Branch TP, Hunter RE. Functional analysis of anterior cruciate ligament braces. *Clin Sports Med*. 1990; 9(4):771-797.

Indelicato PA, Bittar ES, Prevot TJ, Woods GA, **Branch TP**, Huegel M. Clinical comparison of freeze-dried and fresh frozen patellar tendon allografts for anterior cruciate ligament reconstruction of the knee. *Am J Sports Med*. 1990; 18(4):335-342.

Branch T, Partin C, Chamberland P, Emeterio E, Sabetelle. Spontaneous fractures of the humerus during pitching. A series of 12 cases. *Am J Sports Med*. 1992; 20(4):468-470.

Cook J, **Branch TP**, Baranowski TJ, Hutton WC. The effect of surgical floor mats in prolonged standing: an EMG study of the lumbar paraspinal and anterior tibialis muscles. *J Biomed Eng*. 1993; 15(3):247-250.

Butler JC, **Branch TP**, Hutton WC. Optimal graft fixation—the effect of gap size and screw size on bone plug fixation in ACL reconstruction. *Arthroscopy*. 1994; 10(5):524-529.

Branch TP, Lawton RL; lobst CA, Hutton WC. The role of glenohumeral capsular ligaments in internal and external rotation of the humerus. *Am J Sports Med.* 1995; 23(5):632-637.

Chen MI, **Branch TP**, Hutton WC. Is it important to secure the horns during lateral meniscal transplantation? A cadaveric study. *Arthroscopy.* 1996; 12(2):174-181.

Falchok FS, Tigges S, Carpenter WA, **Branch TP**, Stiles RG. Accuracy of direct signs of tears of the anterior cruciate ligament. *Can Assoc Radiol J.* 1996; 47(2):114-120.

Branch TP, Burdette HL, Shahriari AS, Carter FM, Hutton WC. The role of the acromioclavicular ligaments and the effect of distal clavicle resection. *Am J Sports Med.* 1996; 24(3):293-297.

Boden SD, Riew KD, Yamaguchi K, **Branch TP**, Schellinger D, Wiesel SW. Orientation of the lumbar facet joints: association with degenerative disc disease. *J Bone Joint Surg Am.* 1996; 78(3):403-411.

Branch TP, Avilla O, London L, Hutton WC. Correlation of medial/lateral rotation of the humerus with glenohumeral translation. *Br J Sports Med.* 1999; 33(5):347-351.

Browne JE, **Branch TP**. Surgical alternatives for treatment of articular cartilage lesions. *J Am Acad Orthop Surg.* 2000; 8(3):180-189.

Branch TP, Karsch RE, Mills TJ, Palmer MT. Mechanical therapy for loss of knee flexion. *Am J Orthop.* 2003; 32(4):195-200.

Branch TP, Mayr HO, Browne JE, Campbell JD, Stoehr A, Jacobs CA. Instrumented Examination of Anterior Cruciate Ligament Injuries: Minimizing Flaws of the Manual Clinical Examination. *Arthroscopy.* 2010; 26(7):997-1004.

Branch TP, Browne JE, Campbell JD, Siebold R, Freedberg HI, Arendt EA, Lavoie F, Neyret P, Jacobs CA. Rotational Laxity Greater in Patients with Contralateral Anterior Cruciate Ligament Injury than Healthy Volunteers. *Knee Surg Sports Traumatol Arthrosc.* 2010;18(10):1379-1384.

Dempsey AL, **Branch TP**, Mills T, Karsch RM. High-intensity mechanical therapy for loss of knee extension for worker's compensation and non-compensation patients. *Sports Med Arthrosc Rehabil Ther Technol.* 2010;2:26-31.

Branch TP, Siebold R, Freedberg HI, Jacobs CA. A Matched Pairs Analysis of Instrumented Tests of Tibial Anterior Translation and Internal Rotation Laxity between Single- and Double-Bundle ACL Reconstructions. *Knee Surg Sports Traumatol Arthrosc.* 2011;19(3):432-440.

Siebold R, **Branch TP**, Freedberg HI, Jacobs CA. A matched pairs comparison of single- versus double-bundle anterior cruciate ligament reconstructions, clinical results and manual laxity testing. *Knee Surg Sports Traumatol Arthrosc.* 2011;19(Suppl 1):S4-S11.

Selected Refereed Abstracts/Presentations

Branch TP, Stinton SK. The potential impact of repair of the anterolateral ligament on post ACL-reconstruction uncontrolled internal rotation. Star Paper Session at the ESSKA Annual Meeting, Amsterdam, May 2014.

Stinton SK, **Branch TP**. The importance of test-retest reliability and reproducibility over time during objective knee examination. Poster presentation at the ESSKA Annual Meeting, Amsterdam, May 2014.

Stinton SK, **Branch TP**. The importance of a complete clinical knee exam using 3 independent laxity tests. Poster presentation at the ESSKA Annual Meeting, Amsterdam, May 2014.

Branch TP, Stinton SK. The potential frequency of anterolateral ligament injuries in at-risk patients in a post ACL-reconstructed population. Poster presentation at the ESSKA Annual Meeting, Amsterdam, May 2014.

Branch TP, Stinton SK. Robotic Evaluation of clinically diagnosed posterolateral corner instability. Poster presentation at the AANA annual meeting, Hollywood, FL, May 2014.

Branch TP, Browne J, Stinton SK. The impact of lateral meniscectomy on rotational stability in the knee. Poster presentation at the AANA annual meeting, Hollywood, FL, May 2014.

Branch TP, Stinton SK. The AP laxity test, the varus/valgus test and the dial test show no correlation. Poster presentation at the AANA annual meeting, Hollywood, FL, May 2014.

Browne J, **Branch TP**, Stinton SK. The Effect of Medial Meniscal Injury on Rotational Instability following ACL Reconstruction. Podium Presentation at the AANA annual meeting, Hollywood, FL, May 2014.

Stinton SK, Browne JE, Jacobs CA, **Branch TP**. The effect of medial meniscal injury on rotational instability following ACL reconstruction. Highlighted poster at the AAOS Annual Meeting, New Orleans, March 2014.

Browne J, Stinton SK, **Branch TP**. The impact of lateral meniscectomy on rotational stability in the knee. Presentation at the 2014 ACL study group annual meeting, Capetown, South Africa.

Branch TP, Stinton SK. Presentation at the 2014 ACL study Group annual meeting, Capetown, South Africa.

Stinton SK, Trigg S, DeJarnette NK, Cunningham TJ, **Branch TP**. Reliability of a robotic knee tester during dynamic CT scanning. Poster presentation at the ISAKOS biennial meeting, Toronto, Canada, May, 2013.

Stinton SK, DeJarnette NK, Cunningham TJ, **Branch TP**. Do tibial rotational characteristics play a role in determining the likelihood of anterior cruciate ligament failure? Poster presentation at the ISAKOS biennial meeting, Toronto, Canada, May 2013.

Stinton SK, **Branch TP**, Cunningham TJ, Jacobs CA. The Effect of ACL Graft Selection on in vivo 3D Patellar Kinematics During Robotic Tibial Rotation Using Dynamic CT. Presented at the AAOS Annual Meeting in Chicago, IL, March, 2013.

Stinton SK, DeJarnette NK, Cunningham TJ, Hutton WC, **Branch TP**. Do Tibial Rotational Characteristics Play a Role in Determining the Likelihood of Anterior Cruciate Ligament Failure? Presented at the ORS Annual Meeting in San Antonio, TX, January, 2013.

Stinton SK, **Branch TP**, Cunningham TJ, Mills T, Albahar A, Jacobs CA. In Vivo 3D Patellar Kinematics During Robotic Tibial Rotation Using Dynamic CT. Presented at the ESSKA annual meeting in Geneva, Switzerland, May 2012.

Branch TP, Stinton SK, Cunningham TJ, Jacobs, CA. The Effect of Graft Selection on In Vivo 3D Patellar Kinematics During Robotic Tibial Rotation Using Dynamic CT. Presented at the 2012 ACL Study group. Jackson Hole, Wyoming.

Cunningham TJ, **Branch TP**, Stinton SK, Mills T, Albahar A, Jacobs CA. A robotic in vivo comparison of 3-dimensional patellar kinematics between healthy volunteers and those with patellofemoral pain syndrome using dynamic computed tomography. Podium presentation at the Orthopaedic Research Society Annual Meeting. San Francisco, Feb. 2012.

Jacobs CA, **Branch TP**, Cunningham TJ, Stinton SK, Freedberg HI, Browne JE, Wente TM. A robotic in vivo evaluation of loading characteristics of different anterior cruciate ligament reconstructions. Poster at the Orthopaedic Research Society Annual Meeting. San Francisco, Feb. 2012.

Branch TP, Stinton SK, Cunningham TJ, Freedberg HI, Browne JE, Jacobs CA. Debate: Double Bundle ACL Reconstruction is Superior to Single Bundle. Presented at the Emerging Techniques in Orthopedics Conference in Las Vegas, NV, December 2011.

Branch TP, Cunningham TJ, Mills T, Albahar A, **Stinton SK**, Jacobs CA. In Vivo 3D Patellar Kinematics During Robotic Tibial Rotation During Dynamic CT. Presented at the 2011 Patellofemoral Study Group Meeting, San Diego, CA, July, 2011. NATA talk-New Orleans-6/20/2011-AC joint

Jacobs CA, **Branch TP**, Browne JE, Campbell JC. Minimizing variability of anterior tibial translation measures during knee laxity testing. *34th Annual Meeting of the American Society of Biomechanics*, Providence, RI, August 18 – 21, 2010.

Jacobs CA, **Branch TP**, Siebold R. Variability of clinical examination techniques used to assess laxity of the anterior cruciate ligament. *34th Annual Meeting of the American Society of Biomechanics*, Providence, RI, August 18 – 21, 2010.

Jacobs CA & **Branch TP**. The Validity of Using the Clinical Exam to Quantify Surgical Outcomes. Poster P13-700, *14th ESSKA Conference, European Society of Sports Traumatology Knee Surgery & Arthroscopy*, Oslo, Norway, June 9 – 12, 2010.

Dempsey AL, **Branch TP**, Mills T, Karsch R. Mechanical Therapy for Loss of Knee Extension. Poster P22-1056, *14th ESSKA Conference, European Society of Sports Traumatology Knee Surgery & Arthroscopy*, Oslo, Norway, June 9 – 12, 2010.

Branch TP, Siebold R, Freedberg HI, Jacobs CA. A Matched Pairs Analysis of Instrumented Tests of Tibial Anterior Translation and Internal Rotation Laxity between Single- and Double-Bundle ACL Reconstructions. Poster P13-713, *14th ESSKA Conference, European Society of Sports Traumatology Knee Surgery & Arthroscopy*, Oslo, Norway, June 9 – 12, 2010.

Branch TP, Siebold R, Freedberg HI, Jacobs CA. A Matched Pairs Analysis of Instrumented Tests of Tibial Anterior Translation and Internal Rotation Laxity between Single- and Double-Bundle ACL Reconstructions. *American Orthopaedic Society for Sports Medicine 2010 Specialty Day*, New Orleans, LA, March 13, 2010.

Branch TP, Jacobs CA. Anterior cruciate ligament reconstruction restores native joint center of rotation. Poster #P449. *77th Annual Meeting, American Academy of Orthopaedic Surgeons*, New Orleans, LA, March 9-13, 2010.

Jacobs CA, **Branch TP**, Browne JE, Campbell JC, Siebold R. The validity of using the clinical exam to quantify surgical outcomes. *ACL Study Group*, Phuket, Thailand, February 20 – 26, 2010.

Branch TP, Siebold R, Freedberg HI, Jacobs CA. Computerized rotational stability with Pivotometer. International ATOS LIVE Summit 2009, "Anatomical Knee Reconstruction to Knee Replacement", Heidelberg, Germany, September 24 – 26, 2009.

Jacobs CA, **Branch TP**, Siebold R, Freedberg HI. Range of motion deficits may have greater influence on outcome scores and single-leg hop distance than ACL reconstruction technique. Poster #11, *American Orthopaedic Society for Sports Medicine 2009 Annual Meeting*, Keystone, CO, July 9 – 12, 2009.

Siebold R, **Branch TP**, Freedberg H, Jacobs CA. Double Bundle ACL Reconstruction Provided Better Recreation of Patient's Native Knee Mechanics than the Single Bundle Technique. E-poster #E-85, *Annual Meeting of the Arthroscopy Association of North America*, San Diego, CA, April 30 – May 3, 2009.

Branch TP, Siebold R, Freedberg H, Jacobs CA. Range of Motion Deficits may have Greater Influence on Outcome Scores and Single-leg Hop Distance than ACL Reconstruction Surgical Technique. E-poster #E-112, *Annual Meeting of the*

Arthroscopy Association of North America, San Diego, CA, April 30 – May 3, 2009.

Branch TP, Browne JE, Campbell JD, Siebold R, Freedberg HI, Arendt EA, Jacobs CA. Female Knees Demonstrate Decreased Rotational Stability when Compared to Male Knees. *76th Annual Meeting, American Academy of Orthopaedic Surgeons*, Las Vegas, NV, February 25-28, 2009.

Branch TP, Browne JE, Campbell JD, Siebold R, Freedberg HI, Arendt EA, Jacobs CA. Rotational differences between the sexes. *International Patellofemoral Study Group*, Stellenbosch South Africa. November, 2008.

Siebold R, **Branch TP**, Freedberg HI, Branch E, Jacobs CA. Single versus double bundle reconstruction: evaluation with robotic tibial axial rotation testing with magnetic field position sensors and patient satisfaction. Paper #8, *2008 meeting of the ACL Study Group*, Engelberg, Switzerland, March 23-28, 2008.

Research Support

Completed Research Support

- 1994 The Effect of Horn Placement and Attachment on Lateral Meniscal Transplantation in Vitro.
Funding Agency: Stryker Corporation
- 1993 The Effect of Lengthening the Anterior and Posterior Glenohumeral Capsulo-ligamentous Complex on Humeral Rotation
Funding Agency: Emory University, Deans Grant for Medical Student Research
- 1991 Isolation of the Ankle Strategy and the Maintenance of Balance in the Athlete.
Funding Agency: Emory University, Deans Grant for Medical Student Research
- 1991 The Effect of Fatigue on the Maintenance of Balance in the Athlete.
Funding Agency: Emory University, Deans Grant for Medical Student Research