

References

- Akuthota, V., & Nadler, S. F. (2004). Core strengthening. *Arch Phys Med Rehabil*, 85(3 Suppl 1), S86-92.
- Amason, A., Gudmundsson, A., Dahl, H. A., & Johannsson, E. (1996). Soccer injuries in Iceland. *Scan J Med Sci Sports*, 6(1), 40-45.
- Aminaka, N., & Gribble, P. A. (2008). Patellar taping, patellofemoral pain syndrome, lower extremity kinematics, and dynamic postural control. *J Athl Train*, 43(1), 21-28.
- Anderson, K., & Behm, D. G. (2005a). The impact of instability resistance training on balance and stability. *Sports Med*, 35(1), 43-53.
- Anderson, K., & Behm, D. G. (2005b). Trunk muscle activity increases with unstable squat movements. *Can J Appl Physiol*, 30(1), 33-45.
- Arendt-Nielsen, L., Graven-Nielsen, T., Sværre, H., & Svensson, P. (1996). The influence of low back pain on muscle activity and coordination during gait: a clinical and experimental study. *Pain*, 64(2), 231-240.
- Atlas, S. J., Chang, Y., Keller, R. B., Singer, D. E., Wu, Y. A., & Deyo, R. A. (2006). The impact of disability compensation on long-term treatment outcomes of patients with sciatica due to a lumbar disc herniation. *Spine (Phila Pa 1976)*, 31(26), 3061-3069.
- Bahr, R., & Bahr, I. A. (1997). Incidence of acute volleyball injuries: a prospective cohort study of injury mechanisms and risk factors. *Scand J Med Sci Sports*, 7(3), 166-171.
- Barrett, J. R., Tanji, J. L., Drake, C., Fuller, D., Kawasaki, R. I., & Fenton, R. M. (1993). High- versus low-top shoes for the prevention of ankle sprains in basketball players. A prospective randomized study. *Am J Sports Med*, 21(4), 582-585.
- Baumhauer, J. F., Alosa, D. M., Renstrom, A. F., Trevino, S., & Beynon, B. (1995). A prospective study of ankle injury risk factors. *Am J Sports Med*, 23(5), 564-570.
- Beckman, S. M., & Buchanan, T. S. (1995). Ankle inversion injury and hypermobility: effect on hip and ankle muscle electromyography onset latency. *Arch Phys Med Rehabil*, 76(12), 1138-1143.
- Behm, D. G., Leonard, A. M., Young, W. B., Bonsey, W. A., & MacKinnon, S. N. (2005). Trunk muscle electromyographic activity with unstable and unilateral exercises. *J Strength Cond Res*, 19(1), 193-201.
- Behm, D. G., Wahl, M. J., Button, D. C., Power, K. E., & Anderson, K. G. (2005). Relationship between hockey skating speed and selected performance measures. *J Strength Cond Res*, 19(2), 326-331.
- Beiner, J. M., Jokl, P., Cholewicki, J., & Panjabi, M. M. (1999). The effect of anabolic steroids and corticosteroids on healing of muscle contusion injury. *Am J Sports Med*, 27(1), 2-9.
- Bennell, K. L., Malcolm, S. A., Thomas, S. A., Reid, S. J., Brukner, P. D., Ebeling, P. R., et al. (1996). Risk factors for stress fractures in track and field athletes. A twelve-month prospective study. *Am J Sports Med*, 24(6), 810-818.
- Beynon, B. D., Renstrom, P. A., Alosa, D. M., Baumhauer, J. F., & Vacek, P. M. (2001). Ankle ligament injury risk factors: a prospective study of college athletes. *J Orthop Res*, 19(2), 213-220.
- Bo, K., & Borgen, J. S. (2001). Prevalence of stress and urge urinary incontinence in elite athletes and controls. *Med Sci Sports Exerc*, 33(11), 1797-1802.
- Bono, C. M. (2004). Low-back pain in athletes. *J Bone Joint Surg Am*, 86-A(2), 382-396.
- Brenner, A. K., Gill, N. W., Buscema, C. J., & Kiesel, K. (2007). Improved activation of lumbar multifidus following spinal manipulation: a case report applying rehabilitative ultrasound imaging. *J Orthop Sports Phys Ther*, 37(10), 613-619.
- Browder, D. A., Childs, J. D., Cleland, J. A., & Fritz, J. M. (2007). Effectiveness of an extension-oriented treatment approach in a subgroup of subjects with low back pain: a randomized clinical trial. *Phys Ther*, 87(12), 1608-1618; discussion 1577-1609.
- Bullock-Saxton, J. E., Janda, V., & Bullock, M. I. (1994). The influence of ankle sprain injury on muscle activation during hip extension. *Int J Sports Med*, 15(6), 330-334.
- Butler, R. J., Plisky, P. J., Southers, C., Scoma, C., & Kiesel, K. B. (2010). Biomechanical analysis of the different classifications of the Functional Movement Screen deep squat test. *Sports Biomech*, 9(4), 270-279.

- Chaiwanichsiri, D., Lorprayoon, E., & Noomanoach, L. (2005). Star excursion balance training: effects on ankle functional stability after ankle sprain. *J Med Assoc Thai, 88 Suppl 4*, S90-94.
- Childs, J. D., Fritz, J. M., Flynn, T. W., Irrgang, J. J., Johnson, K. K., Majkowski, G. R., et al. (2004). A clinical prediction rule to identify patients with low back pain most likely to benefit from spinal manipulation: a validation study. *Ann Intern Med, 141*(12), 920-928.
- Cholewicki, J., Crisco, J. J., 3rd, Oxland, T. R., Yamamoto, I., & Panjabi, M. M. (1996). Effects of posture and structure on three-dimensional coupled rotations in the lumbar spine. A biomechanical analysis. *Spine (Phila Pa 1976), 21*(21), 2421-2428.
- Cholewicki, J., Greene, H. S., Polzhofer, G. K., Galloway, M. T., Shah, R. A., & Radebold, A. (2002). Neuromuscular function in athletes following recovery from a recent acute low back injury. *J Orthop Sports Phys Ther, 32*(11), 568-575.
- Cholewicki, J., Juluru, K., Radebold, A., Panjabi, M. M., & McGill, S. M. (1999). Lumbar spine stability can be augmented with an abdominal belt and/or increased intra-abdominal pressure. *Eur Spine J, 8*(5), 388-395.
- Cholewicki, J., Panjabi, M. M., & Khachatryan, A. (1997). Stabilizing function of trunk flexor-extensor muscles around a neutral spine posture. *Spine (Phila Pa 1976), 22*(19), 2207-2212.
- Cholewicki, J., Panjabi, M. M., Nibu, K., Babat, L. B., Grauer, J. N., & Dvorak, J. (1998). Head kinematics during in vitro whiplash simulation. *Accid Anal Prev, 30*(4), 469-479.
- Cholewicki, J., Panjabi, M. M., Nibu, K., & Macias, M. E. (1997). Spinal ligament transducer based on a hall effect sensor. *J Biomech, 30*(3), 291-293.
- Cholewicki, J., Silfies, S. P., Shah, R. A., Greene, H. S., Reeves, N. P., Alvi, K., et al. (2005). Delayed trunk muscle reflex responses increase the risk of low back injuries. *Spine, 30*(23), 2614-2620.
- Cholewicki, J., van Dieen, J. H., & Arsenault, A. B. (2003). Muscle function and dysfunction in the spine. *J Electromyogr Kinesiol, 13*(4), 303-304.
- Chomiak, J., Junge, A., Peterson, L., & Dvorak, J. (2000). Severe injuries in football players. Influencing factors. *Am J Sports Med, 28*(5 Suppl), S58-68.
- Cibulka, M. T. (1999). Low back pain and its relation to the hip and foot. *J Orthop Sports Phys Ther, 29*(10), 595-601.
- Cibulka, M. T., Sinacore, D. R., Cromer, G. S., & Delitto, A. (1998). Unilateral hip rotation range of motion asymmetry in patients with sacroiliac joint regional pain. *Spine, 23*(9), 1009-1015.
- Clark, S., Christiansen, A., Hellman, D. F., Hugunin, J. W., & Hurst, K. M. (1999). Effects of ipsilateral anterior thigh soft tissue stretching on passive unilateral straight-leg raise. *J Orthop Sports Phys Ther, 29*(1), 4-9; discussion 10-12.
- Cleland, J. A., Fritz, J. M., Kulig, K., Davenport, T. E., Eberhart, S., Magel, J., et al. (2009). Comparison of the effectiveness of three manual physical therapy techniques in a subgroup of patients with low back pain who satisfy a clinical prediction rule: a randomized clinical trial. *Spine (Phila Pa 1976), 34*(25), 2720-2729.
- Cook, E. (2010). *Movement*. Aptos California: On Target Publishing.
- Cook, E., & Kiesel, K. (2006). Impaired Patterns of Posture and Function In B. Prentice & M. Voight (Eds.), *Techniques in Musculoskeletal Rehabilitation* (2nd ed.). Chicago: McGraw-Hill.
- Cook, E., & Voight, M. (2001). Essentials of Functional Exercises: A Four-Step Clinical Model for Therapeutic Exercise Prescription. In B. Prentice & M. Voight (Eds.), *Techniques in Therapeutic Exercise*. Philadelphia: McGraw-Hill.
- Cook, G., Burton, L., & Hogenboom, B. (2006a). Pre-participation screening: the use of fundamental movements as an assessment of function - Part 2. *NAJSPT, 1*(3), 132-139.
- Cook, G., Burton, L., & Hogenboom, B. (2006b). The use of fundamental movements as an assessment of function - Part 1. *NAJSPT, 1*(2), 62-72.
- Cote, K. P., Brunet, M. E., Gansneder, B. M., & Shultz, S. J. (2005). Effects of Pronated and Supinated Foot Postures on Static and Dynamic Postural Stability. *J Athl Train, 40*(1), 41-46.
- Currier, L. L., Froehlich, P. J., Carow, S. D., McAndrew, R. K., Cliborne, A. V., Boyles, R. E., et al. (2007). Development of a clinical prediction rule to identify patients with knee pain and clinical evidence of knee osteoarthritis who demonstrate a favorable short-term response to hip mobilization. *Phys Ther, 87*(9), 1106-1119.

- Dahle, L. K., Mueller, M., Delitto, A., & Diamond, J. E. (1991). Visual assessment of foot type and relationship of foot type to lower extremity injury. *J Orthop Sport Phys Ther*, *14*(2), 70-74.
- Dekker, J. M., Crow, R. S., Folsom, A. R., Hannan, P. J., Liao, D., Swenne, C. A., et al. (2000). Low heart rate variability in a 2-minute rhythm strip predicts risk of coronary heart disease and mortality from several causes: the ARIC Study. Atherosclerosis Risk In Communities. *Circulation*, *102*(11), 1239-1244.
- Deyo, R. A., & Mirza, S. K. (2006). Trends and variations in the use of spine surgery. *Clin Orthop Relat Res*, *443*, 139-146.
- Deyo, R. A., Mirza, S. K., & Martin, B. I. (2006). Back pain prevalence and visit rates: estimates from U.S. national surveys, 2002. *Spine (Phila Pa 1976)*, *31*(23), 2724-2727.
- Dvorak, J., Junge, A., Chomiak, J., Graf-Baumann, T., Peterson, L., Rosch, D., et al. (2000). Risk factor analysis for injuries in football players. Possibilities for a prevention program. *Am J Sports Med*, *28*(5 Suppl), S69-74.
- Eijgelsheim, M., Newton-Cheh, C., Sotoodehnia, N., de Bakker, P. I., Muller, M., Morrison, A. C., et al. (2010). Genome-wide association analysis identifies multiple loci related to resting heart rate. *Hum Mol Genet*, *19*(19), 3885-3894.
- Ekstrand, J., & Gillquist, J. (1983). Soccer injuries and their mechanisms: a prospective study. *Med Sci Sports Exerc*, *15*(3), 267-270.
- Ellison, J. B., Rose, S. J., & Sahrman, S. A. (1990). Patterns of hip rotation range of motion: a comparison between healthy subjects and patients with low back pain. *Phys Ther*, *70*(9), 537-541.
- Emery, C. A., & Meeuwisse, W. H. (2006). Injury rates, risk factors, and mechanisms of injury in minor hockey. *Am J Sports Med*, *34*(12), 1960-1969.
- English, T., & Howe, K. (2007). The effect of Pilates exercise on trunk and postural stability and throwing velocity in college baseball pitchers: single subject design. *NAJSPT*, *2*(1), 8-19.
- Falsone, S. A., Gross, M. T., Guskiewicz, K. M., & Schneider, R. A. (2002). One-arm hop test: reliability and effects of arm dominance. *J Orthop Sports Phys Ther*, *32*(3), 98-103.
- Farquhar, S. J., Reisman, D. S., & Snyder-Mackler, L. (2008). Persistence of Altered Movement Patterns During a Sit-to-Stand Task 1 Year Following Unilateral Total Knee Arthroplasty. *Phys Ther*.
- Faude, O., Junge, A., Kindermann, W., & Dvorak, J. (2006). Risk factors for injuries in elite female soccer players. *Br J Sports Med*, *40*(9), 785-790.
- Fernandez-de-las-Penas, C., Falla, D., Arendt-Nielsen, L., & Farina, D. (2008). Cervical muscle co-activation in isometric contractions is enhanced in chronic tension-type headache patients. *Cephalalgia*, *28*(7), 744-751.
- Ferrer, M., Pellise, F., Escudero, O., Alvarez, L., Pont, A., Alonso, J., et al. (2006). Validation of a minimum outcome core set in the evaluation of patients with back pain. *Spine (Phila Pa 1976)*, *31*(12), 1372-1379; discussion 1380.
- Flor, H. (2003). Cortical reorganization and chronic pain: implications for rehabilitation. *J Rehabil Med*(41 Suppl), 66-72.
- Flor, H., Braun, C., Elbert, T., & Birbaumer, N. (1997). Extensive reorganization of primary somatosensory cortex in chronic back pain patients. *Neurosci Lett*, *224*(1), 5-8.
- Fritz, J. M., Delitto, A., & Erhard, R. E. (2003). Comparison of classification-based physical therapy with therapy based on clinical practice guidelines for patients with acute low back pain: a randomized clinical trial. *Spine*, *28*(13), 1363-1371; discussion 1372.
- Fye, M. A., Southern, E. P., Panjabi, M. M., & Cholewicki, J. (1998). Quantitative discomanometry: technique and reproducibility in vitro. *J Spinal Disord*, *11*(4), 335-340.
- Gilchrist, J., Mandelbaum, B. R., Melancon, H., Ryan, G. W., Silvers, H. J., Griffin, L. Y., et al. (2008). A randomized controlled trial to prevent noncontact anterior cruciate ligament injury in female collegiate soccer players. *Am J Sports Med*, *36*(8), 1476-1483.
- Gombatto, S. P., Collins, D. R., Sahrman, S. A., Engsberg, J. R., & Van Dillen, L. R. (2006). Gender differences in pattern of hip and lumbopelvic rotation in people with low back pain. *Clin Biomech (Bristol, Avon)*, *21*(3), 263-271.
- Gomez, J. E., Ross, S. K., Calmbach, W. L., Kimmel, R. B., Schmidt, D. R., & Dhanda, R. (1998). Body fatness and increased injury rates in high school football linemen. *Clin J Sport Med*, *8*(2), 115-120.

- Gorman, P. P., Butler, R. J., Plisky, P. J., & Kiesel, K. B. (2012). Upper Quarter Y Balance Test: Reliability and Performance Comparison between Gender in Active Adults. *J Strength Cond Res*.
- Grauer, J. N., Panjabi, M. M., Cholewicki, J., Nibu, K., & Dvorak, J. (1997). Whiplash produces an S-shaped curvature of the neck with hyperextension at lower levels. *Spine (Phila Pa 1976)*, *22*(21), 2489-2494.
- Gray, D. T., Deyo, R. A., Kreuter, W., Mirza, S. K., Heagerty, P. J., Comstock, B. A., et al. (2006). Population-based trends in volumes and rates of ambulatory lumbar spine surgery. *Spine (Phila Pa 1976)*, *31*(17), 1957-1963; discussion 1964.
- Gribble, P. A., Hertel, J., Denegar, C. R., & Buckley, W. E. (2004). The Effects of Fatigue and Chronic Ankle Instability on Dynamic Postural Control. *J Athl Train*, *39*(4), 321-329.
- Gunnoe, A. J., Horodyski, M., Tennant, L. K., & Murphey, M. (2001). The Effect of Life Events on Incidence of Injury in High School Football Players. *J Athl Train*, *36*(2), 150-155.
- Hale, S. A., Hertel, J., & Olmsted-Kramer, L. C. (2007). The effect of a 4-week comprehensive rehabilitation program on postural control and lower extremity function in individuals with chronic ankle instability. *J Orthop Sports Phys Ther*, *37*(6), 303-311.
- Hall, L., Tsao, H., MacDonald, D., Coppieters, M., & Hodges, P. W. (2009). Immediate effects of co-contraction training on motor control of the trunk muscles in people with recurrent low back pain. *J Electromyogr Kinesiol*, *19*(5), 763-773.
- Herrington, L., Hatcher, J., Hatcher, A., & McNicholas, M. (2009). A comparison of Star Excursion Balance Test reach distances between ACL deficient patients and asymptomatic controls. *Knee*, *16*(2), 149-152.
- Hertel, J., Braham, R. A., Hale, S. A., & Olmsted-Kramer, L. C. (2006). Simplifying the star excursion balance test: analyses of subjects with and without chronic ankle instability. *J Orthop Sports Phys Ther*, *36*(3), 131-137.
- Hertel, J., Miller, S. J., & Denegar, C. R. (2000). Intratester and intertester reliability during the Star Excursion Balance Test. *J Sport Rehabil*, *9*, 104-116.
- Hewett, T. E., Myer, G. D., Ford, K. R., Heidt, R. S., Jr., Colosimo, A. J., McLean, S. G., et al. (2005). Biomechanical measures of neuromuscular control and valgus loading of the knee predict anterior cruciate ligament injury risk in female athletes: a prospective study. *Am J Sports Med*, *33*(4), 492-501.
- Hodges, P. W. (2011). Pain and motor control: From the laboratory to rehabilitation. *J Electromyogr Kinesiol*, *21*(2), 220-228.
- Hodges, P. W., & Tucker, K. (2011). Moving differently in pain: a new theory to explain the adaptation to pain. *Pain*, *152*(3 Suppl), S90-98.
- Hopper, D. M., Hopper, J. L., & Elliott, B. C. (1995). Do selected kinanthropometric and performance variables predict injuries in female netball players? *J Sports Sci*, *13*(3), 213-222.
- Hubbard, T. J., & Hertel, J. (2008). Anterior positional fault of the fibula after sub-acute lateral ankle sprains. *Man Ther*, *13*(1), 63-67.
- Hubbard, T. J., Kramer, L. C., Denegar, C. R., & Hertel, J. (2007a). Contributing factors to chronic ankle instability. *Foot Ankle Int*, *28*(3), 343-354.
- Hubbard, T. J., Kramer, L. C., Denegar, C. R., & Hertel, J. (2007b). Correlations among multiple measures of functional and mechanical instability in subjects with chronic ankle instability. *J Athl Train*, *42*(3), 361-366.
- Iverson, C. A., Sutlive, T. G., Crowell, M. S., Morrell, R. L., Perkins, M. W., Garber, M. B., et al. (2008). Lumbopelvic manipulation for the treatment of patients with patellofemoral pain syndrome: development of a clinical prediction rule. *J Orthop Sports Phys Ther*, *38*(6), 297-309; discussion 309-212.
- Jarvik, J. G., Kallmes, D. F., & Deyo, R. A. (2006). Point of view: kyphoplasty: more answers or more questions? *Spine (Phila Pa 1976)*, *31*(1), 65-66.
- Kiesel, K., Burton, L., & Cook, E. (2004). Mobility Screening for the Core. *Athletic Therapy Today*, *9*(5), 42-45.
- Kiesel, K., Burton, L., & Cook, E. (2005). Mobility Screening for the Core, Part 3: Implications for Athletic Low Back Pain. *Athletic Therapy Today*, *10*(1), 36-39.

- Kiesel, K., Burton, S., & Cook, E. (2004). Mobility Screening for the Core Part II; Interventions. *Athletic Therapy Today*, 9(6).
- Kiesel, K., Plisky, P., & Butler, R. (2011). Functional movement test scores improve following a standardized off-season intervention program in professional football players. *Scand J Med Sci Sports*, 21(2), 287-292.
- Kiesel, K., Plisky, P., & Kersey, P. (2008). *Functional Movement Test Score as a Predictor of Time-loss during a Professional Football Team's Pre-season* Paper presented at the American College of Sports Medicine Annual Conference, Indianapolis, IN.
- Kiesel, K., Plisky, P. J., & Voight, M. L. (2007). Can Serious Injury in Professional Football be Predicted by a Preseason Functional Movement Screen? *N Am J Sports Phys Ther*, 2(3), 147-158.
- Kiesel, K. B., Butler, R. J., Duckworth, A., Halaby, T., Lannan, K., Phifer, C., et al. (2012). Experimentally induced pain alters the EMG activity of the lumbar multifidus in asymptomatic subjects. *Man Ther*.
- Kiesel, K. B., Uhl, T., Underwood, F. B., & Nitz, A. J. (2008). Rehabilitative ultrasound measurement of select trunk muscle activation during induced pain. *Man Ther*, 13(2), 132-138.
- Kiesel, K. B., Uhl, T. L., Underwood, F. B., Rodd, D. W., & Nitz, A. J. (2007). Measurement of lumbar multifidus muscle contraction with rehabilitative ultrasound imaging. *Man Ther*, 12(2), 161-166.
- Kiesel, K. B., Underwood, F. B., Mattacola, C. G., Nitz, A. J., & Malone, T. R. (2007). A comparison of select trunk muscle thickness change between subjects with low back pain classified in the treatment-based classification system and asymptomatic controls. *J Orthop Sports Phys Ther*, 37(10), 596-607.
- Kinzey, S. J., & Armstrong, C. W. (1998). The reliability of the star-excursion test in assessing dynamic balance. *J Orthop Sports Phys Ther*, 27(5), 356-360.
- Knapik, J. J., Bauman, C. L., Jones, B. H., Harris, J. M., & Vaughan, L. (1991). Preseason strength and flexibility imbalances associated with athletic injuries in female collegiate athletes. *Am J Sports Med*, 19(1), 76-81.
- Knapik, J. J., Jones, B. H., Bauman, C. L., & Harris, J. M. (1992). Strength, flexibility and athletic injuries. *Sports Med*, 14(5), 277-288.
- Kolar, P., Sulc, J., Kyncl, M., Sanda, J., Cakrt, O., Andel, R., et al. (2011). Postural Function of the Diaphragm in Persons With and Without Chronic Low Back Pain. *J Orthop Sports Phys Ther*.
- Krivickas, L. S., & Feinberg, J. H. (1996). Lower extremity injuries in college athletes: relation between ligamentous laxity and lower extremity muscle tightness. *Arch Phys Med Rehabil*, 77(11), 1139-1143.
- Lanning, C. L., Uhl, T. L., Ingram, C. L., Mattacola, C. G., English, T., & Newsom, S. (2006). Baseline values of trunk endurance and hip strength in collegiate athletes. *J Athl Train*, 41(4), 427-434.
- Leetun, D. T., Ireland, M. L., Willson, J. D., Ballantyne, B. T., & Davis, I. M. (2004). Core stability measures as risk factors for lower extremity injury in athletes. *Med Sci Sports Exerc*, 36(6), 926-934.
- Lyman, S., Fleisig, G. S., Waterbor, J. W., Funkhouser, E. M., Pulley, L., Andrews, J. R., et al. (2001). Longitudinal study of elbow and shoulder pain in youth baseball pitchers. *Med Sci Sports Exerc*, 33(11), 1803-1810.
- McGill, S. M., Grenier, S., Kavcic, N., & Cholewicki, J. (2003). Coordination of muscle activity to assure stability of the lumbar spine. *J Electromyogr Kinesiol*, 13(4), 353-359.
- McGuine, T. A., Greene, J. J., Best, T., & Levenson, G. (2000). Balance as a predictor of ankle injuries in high school basketball players. *Clin J Sport Med*, 10(4), 239-244.
- McHugh, M. P., Tyler, T. F., Tetro, D. T., Mullaney, M. J., & Nicholas, S. J. (2006). Risk factors for noncontact ankle sprains in high school athletes: the role of hip strength and balance ability. *Am J Sports Med*, 34(3), 464-470.
- McKay, G. D., Goldie, P. A., Payne, W. R., & Oakes, B. W. (2001). Ankle injuries in basketball: injury rate and risk factors. *Br J Sports Med*, 35(2), 103-108.
- McKeon, P. O., & Hertel, J. (2008). Systematic review of postural control and lateral ankle instability, part II: is balance training clinically effective? *J Athl Train*, 43(3), 305-315.

- McKeon, P. O., Ingersoll, C. D., Kerrigan, D. C., Saliba, E., Bennett, B. C., & Hertel, J. (2008). Balance training improves function and postural control in those with chronic ankle instability. *Med Sci Sports Exerc*, *40*(10), 1810-1819.
- McLaughlin, L., Goldsmith, C. H., & Coleman, K. (2011). Breathing evaluation and retraining as an adjunct to manual therapy. *Man Ther*, *16*(1), 51-52.
- Messina, D. F., Farney, W. C., & DeLee, J. C. (1999). The incidence of injury in Texas high school basketball. A prospective study among male and female athletes. *Am J Sports Med*, *27*(3), 294-299.
- Minick, K. I., Kiesel, K. B., Burton, L., Taylor, A., Plisky, P., & Butler, R. J. (2010). Interrater reliability of the functional movement screen. *J Strength Cond Res*, *24*(2), 479-486.
- Mirza, S. K., Deyo, R. A., Heagerty, P. J., Turner, J. A., Lee, L. A., & Goodkin, R. (2006). Towards standardized measurement of adverse events in spine surgery: conceptual model and pilot evaluation. *BMC Musculoskelet Disord*, *7*, 53.
- Moiler, K., Hall, T., & Robinson, K. (2006). The role of fibular tape in the prevention of ankle injury in basketball: A pilot study. *J Orthop Sports Phys Ther*, *36*(9), 661-668.
- Mok, N. W., Brauer, S. G., & Hodges, P. W. (2011). Changes in lumbar movement in people with low back pain are related to compromised balance. *Spine (Phila Pa 1976)*, *36*(1), E45-52.
- Myer, G. D., Ford, K. R., Paterno, M. V., Nick, T. G., & Hewett, T. E. (2008). The effects of generalized joint laxity on risk of anterior cruciate ligament injury in young female athletes. *Am J Sports Med*, *36*(6), 1073-1080.
- Nadler, S. F., Malanga, G. A., Bartoli, L. A., Feinberg, J. H., Prybicien, M., & DePrince, M. (2002). Hip muscle imbalance and low back pain in athletes: influence of core strengthening. *Med Sci Sports Exerc*, *34*(1), 9-16.
- Nadler, S. F., Malanga, G. A., DePrince, M., Stitik, T. P., & Feinberg, J. H. (2000). The relationship between lower extremity injury, low back pain, and hip muscle strength in male and female collegiate athletes. *Clin J Sport Med*, *10*(2), 89-97.
- Nadler, S. F., Malanga, G. A., Feinberg, J. H., Prybicien, M., Stitik, T. P., & DePrince, M. (2001). Relationship between hip muscle imbalance and occurrence of low back pain in collegiate athletes: a prospective study. *Am J Phys Med Rehabil*, *80*(8), 572-577.
- Nadler, S. F., Malanga, G. A., Feinberg, J. H., Rubanni, M., Moley, P., & Foye, P. (2002). Functional performance deficits in athletes with previous lower extremity injury. *Clin J Sport Med*, *12*(2), 73-78.
- Nadler, S. F., Moley, P., Malanga, G. A., Rubbani, M., Prybicien, M., & Feinberg, J. H. (2002). Functional deficits in athletes with a history of low back pain: a pilot study. *Arch Phys Med Rehabil*, *83*(12), 1753-1758.
- Nesser, T. W., Huxel, K. C., Tincher, J. L., & Okada, T. (2008). The relationship between core stability and performance in division I football players. *J Strength Cond Res*, *22*(6), 1750-1754.
- Nibu, K., Cholewicki, J., Panjabi, M. M., Babat, L. B., Grauer, J. N., Kothe, R., et al. (1997). Dynamic elongation of the vertebral artery during an in vitro whiplash simulation. *Eur Spine J*, *6*(4), 286-289.
- Nibu, K., Panjabi, M. M., Oxland, T., & Cholewicki, J. (1997). Multidirectional stabilizing potential of BAK interbody spinal fusion system for anterior surgery. *J Spinal Disord*, *10*(4), 357-362.
- Nibu, K., Panjabi, M. M., Oxland, T., & Cholewicki, J. (1998). Intervertebral disc distraction with a laparoscopic anterior spinal fusion system. *Eur Spine J*, *7*(2), 142-147.
- Nourbakhsh, M. R., & Arab, A. M. (2002). Relationship between mechanical factors and incidence of low back pain. *J Orthop Sports Phys Ther*, *32*(9), 447-460.
- O'Sullivan, P. (2005). Diagnosis and classification of chronic low back pain disorders: maladaptive movement and motor control impairments as underlying mechanism. *Man Ther*, *10*(4), 242-255.
- Olmsted, L. C., Carcia, C. R., Hertel, J., & Shultz, S. J. (2002). Efficacy of the Star Excursion Balance Tests in Detecting Reach Deficits in Subjects With Chronic Ankle Instability. *J Athl Train*, *37*(4), 501-506.
- Orchard, J., Seward, H., McGivern, J., & Hood, S. (2001). Intrinsic and extrinsic risk factors for anterior cruciate ligament injury in Australian footballers. *Am J Sports Med*, *29*(2), 196-200.
- Orchard, J. W. (2001). Intrinsic and extrinsic risk factors for muscle strains in Australian football. *Am J Sports Med*, *29*(3), 300-303.

- Ostenberg, A., & Roos, H. (2000). Injury risk factors in female European football. A prospective study of 123 players during one season. *Scand J Med Sci Sports*, 10(5), 279-285.
- Panjabi, M. M., Cholewicki, J., Nibu, K., Babat, L. B., & Dvorak, J. (1998). Simulation of whiplash trauma using whole cervical spine specimens. *Spine (Phila Pa 1976)*, 23(1), 17-24.
- Panjabi, M. M., Cholewicki, J., Nibu, K., Grauer, J., Babat, L. B., & Dvorak, J. (1998a). Critical load of the human cervical spine: an in vitro experimental study. *Clin Biomech (Bristol, Avon)*, 13(1), 11-17.
- Panjabi, M. M., Cholewicki, J., Nibu, K., Grauer, J., & Vahldiek, M. (1998). Capsular ligament stretches during in vitro whiplash simulations. *J Spinal Disord*, 11(3), 227-232.
- Panjabi, M. M., Cholewicki, J., Nibu, K., Grauer, J. N., Babat, L. B., & Dvorak, J. (1998b). Mechanism of whiplash injury. *Clin Biomech (Bristol, Avon)*, 13(4-5), 239-249.
- Panjabi, M. M., Cholewicki, J., Nibu, K., Grauer, J. N., Babat, L. B., Dvorak, J., et al. (1998). [Biomechanics of whiplash injury]. *Orthopade*, 27(12), 813-819.
- Panjabi, M. M., Crisco, J. J., Vasavada, A., Oda, T., Cholewicki, J., Nibu, K., et al. (2001). Mechanical properties of the human cervical spine as shown by three-dimensional load-displacement curves. *Spine (Phila Pa 1976)*, 26(24), 2692-2700.
- Panjabi, M. M., Hoffman, H., Kato, Y., & Cholewicki, J. (2000). Superiority of incremental trauma approach in experimental burst fracture studies. *Clin Biomech (Bristol, Avon)*, 15(2), 73-78.
- Panjabi, M. M., Huang, R. C., & Cholewicki, J. (2000). Equivalence of single and incremental subfailure stretches of rabbit anterior cruciate ligament. *J Orthop Res*, 18(5), 841-848.
- Panjabi, M. M., Kato, Y., Hoffman, H., & Cholewicki, J. (2001). Canal and intervertebral foramen encroachments of a burst fracture: effects from the center of rotation. *Spine (Phila Pa 1976)*, 26(11), 1231-1237.
- Panjabi, M. M., Kato, Y., Hoffman, H., Cholewicki, J., & Krag, M. (2000). A study of stiffness protocol as exemplified by testing of a burst fracture model in sagittal plane. *Spine (Phila Pa 1976)*, 25(21), 2748-2754.
- Panjabi, M. M., Moy, P., Oxland, T. R., & Cholewicki, J. (1999). Subfailure injury affects the relaxation behavior of rabbit ACL. *Clin Biomech (Bristol, Avon)*, 14(1), 24-31.
- Panjabi, M. M., Nibu, K., & Cholewicki, J. (1998). Whiplash injuries and the potential for mechanical instability. *Eur Spine J*, 7(6), 484-492.
- Paterno, M. V., Ford, K. R., Myer, G. D., Heyl, R., & Hewett, T. E. (2007). Limb asymmetries in landing and jumping 2 years following anterior cruciate ligament reconstruction. *Clin J Sport Med*, 17(4), 258-262.
- Peter Reeves, N., Narendra, K. S., & Cholewicki, J. (2007). Spine stability: The six blind men and the elephant. *Clin Biomech (Bristol, Avon)*, 22(3), 266-274.
- Pirouzi, S., Hides, J., Richardson, C., Darnell, R., & Toppenberg, R. (2006). Low back pain patients demonstrate increased hip extensor muscle activity during standardized submaximal rotation efforts. *Spine*, 31(26), E999-E1005.
- Plisky, M. S., Rauh, M. J., Heiderscheit, B., Underwood, F. B., & Tank, R. T. (2007). Medial tibial stress syndrome in high school cross-country runners: incidence and risk factors. *J Orthop Sports Phys Ther*, 37(2), 40-47.
- Plisky, P. J., Gorman, P. P., Butler, R. J., Kiesel, K. B., Underwood, F. B., & Elkins, B. (2009). The reliability of an instrumented device for measuring components of the star excursion balance test. *N Am J Sports Phys Ther*, 4(2), 92-99.
- Plisky, P. J., Rauh, M. J., Kaminski, T. W., & Underwood, F. B. (2006). Star Excursion Balance Test as a predictor of lower extremity injury in high school basketball players. *J Orthop Sports Phys Ther*, 36(12), 911-919.
- Quarrie, K. L., Alsop, J. C., Waller, A. E., Bird, Y. N., Marshall, S. W., & Chalmers, D. J. (2001). The New Zealand rugby injury and performance project. VI. A prospective cohort study of risk factors for injury in rugby union football. *Br J Sports Med*, 35(3), 157-166.
- Radebold, A., Cholewicki, J., Panjabi, M. M., & Patel, T. C. (2000). Muscle response pattern to sudden trunk loading in healthy individuals and in patients with chronic low back pain. *Spine (Phila Pa 1976)*, 25(8), 947-954.

- Rauh, M. J., Margherita, A. J., Rice, S. G., Koepsell, T. D., & Rivara, F. P. (2000). High school cross country running injuries: a longitudinal study. *Clin J Sport Med, 10*(2), 110-116.
- Reeves, N. P., Cholewicki, J., & Silfies, S. P. (2006). Muscle activation imbalance and low-back injury in varsity athletes. *J Electromyogr Kinesiol, 16*(3), 264-272.
- Reeves, N. P., Everding, V. Q., Cholewicki, J., & Morrisette, D. C. (2006). The effects of trunk stiffness on postural control during unstable seated balance. *Exp Brain Res, 174*(4), 694-700.
- Reid, A., Birmingham, T. B., Stratford, P. W., Alcock, G. K., & Giffin, J. R. (2007). Hop testing provides a reliable and valid outcome measure during rehabilitation after anterior cruciate ligament reconstruction. *Phys Ther, 87*(3), 337-349.
- Reinking, M. F. (2006). Exercise-related leg pain in female collegiate athletes: the influence of intrinsic and extrinsic factors. *Am J Sports Med, 34*(9), 1500-1507.
- Renkawitz, T., Boluki, D., & Grifka, J. (2006). The association of low back pain, neuromuscular imbalance, and trunk extension strength in athletes. *Spine J, 6*(6), 673-683.
- Robinson, R., & Gribble, P. (2008). Kinematic predictors of performance on the Star Excursion Balance Test. *J Sport Rehabil, 17*(4), 347-357.
- Robinson, R. H., & Gribble, P. A. (2008). Support for a reduction in the number of trials needed for the star excursion balance test. *Arch Phys Med Rehabil, 89*(2), 364-370.
- Roussel, N., Nijs, J., Truijien, S., Vervecken, L., Mottram, S., & Stassijns, G. (2009). Altered breathing patterns during lumbopelvic motor control tests in chronic low back pain: a case-control study. *Eur Spine J, 18*(7), 1066-1073.
- Schegel, R. (1984). *Is Pathokinesiology A Name for our Time?* Paper presented at the A Symposium of Pathokinesiology, Research, and Practice, APTA Congress.
- Schulz, M. R., Marshall, S. W., Mueller, F. O., & al., e. (2004). Incidence and risk factors for concussion in high school athletes, North Carolina, 1996-1999. *Am J Epidemiol, 160*(10), 937-944.
- Schulz, M. R., Marshall, S. W., Yang, J., Mueller, F. O., Weaver, N. L., & Bowling, J. M. (2004). A prospective cohort study of injury incidence and risk factors in North Carolina high school competitive cheerleaders. *Am J Sports Med, 32*(2), 396-405.
- Shadmehr, A., Jafarian, Z., & Talebian, S. (2012). Changes in recruitment of pelvic stabilizer muscles in people with and without sacroiliac joint pain during the active straight-leg-raise test. *J Back Musculoskelet Rehabil, 25*(1), 27-32.
- Sherman, K. J., Cherkin, D. C., Deyo, R. A., Erro, J. H., Hrbek, A., Davis, R. B., et al. (2006). The diagnosis and treatment of chronic back pain by acupuncturists, chiropractors, and massage therapists. *Clin J Pain, 22*(3), 227-234.
- Shum, G. L., Crosbie, J., & Lee, R. Y. (2005). Effect of low back pain on the kinematics and joint coordination of the lumbar spine and hip during sit-to-stand and stand-to-sit. *Spine, 30*(17), 1998-2004.
- Silfies, S. P., Cholewicki, J., Reeves, N. P., & Greene, H. S. (2007). Lumbar position sense and the risk of low back injuries in college athletes: a prospective cohort study. *BMC Musculoskelet Disord, 8*, 129.
- Smith, A. M., Stuart, M. J., Wiese-Bjornstal, D. M., & Gunnon, C. (1997). Predictors of injury in ice hockey players. A multivariate, multidisciplinary approach. *Am J Sports Med, 25*(4), 500-507.
- Soderman, K., Alfredson, H., Pietila, T., & Werner, S. (2001). Risk factors for leg injuries in female soccer players: a prospective investigation during one out-door season. *Knee Surg Sports Traumatol Arthrosc, 9*(5), 313-321.
- Southern, E. P., Fye, M. A., Panjabi, M. M., Patel, T. C., & Cholewicki, J. (2000). Disc degeneration: a human cadaveric study correlating magnetic resonance imaging and quantitative discomanometry. *Spine (Phila Pa 1976), 25*(17), 2171-2175.
- Stokes, I. A., Fox, J. R., & Henry, S. M. (2006). Trunk muscular activation patterns and responses to transient force perturbation in persons with self-reported low back pain. *Eur Spine J, 15*(5), 658-667.
- Stokes, M., Hides, J., Elliott, J., Kiesel, K., & Hodges, P. (2007). Rehabilitative ultrasound imaging of the posterior paraspinal muscles. *J Orthop Sports Phys Ther, 37*(10), 581-595.

- Strunce, J. B., Walker, M. J., Boyles, R. E., & Young, B. A. (2009). The immediate effects of thoracic spine and rib manipulation on subjects with primary complaints of shoulder pain. *J Man Manip Ther*, 17(4), 230-236.
- Surve, I., Schweltnus, M. P., Noakes, T., & Lombard, C. (1994). A fivefold reduction in the incidence of recurrent ankle sprains in soccer players using the Sport-Stirrup orthosis. *Am J Sports Med*, 22(5), 601-606.
- Sutlive, T. G., Mabry, L. M., Easterling, E. J., Durbin, J. D., Hanson, S. L., Wainner, R. S., et al. (2009). Comparison of short-term response to two spinal manipulation techniques for patients with low back pain in a military beneficiary population. *Mil Med*, 174(7), 750-756.
- Thyssen, H. H., Clevin, L., Olesen, S., & Lose, G. (2002). Urinary incontinence in elite female athletes and dancers. *Int Urogynecol J Pelvic Floor Dysfunct*, 13(1), 15-17.
- Trojian, T. H., & McKeag, D. B. (2006). Single leg balance test to identify risk of ankle sprains. *Br J Sports Med*, 40(7), 610-613; discussion 613.
- Tropp, H., Askling, C., & Gillquist, J. (1985). Prevention of ankle sprains. *Am J Sports Med*, 13(4), 259-262.
- Tropp, H., Ekstrand, J., & Gillquist, J. (1984). Stabilometry in functional instability of the ankle and its value in predicting injury. *Med Sci Sports Exerc*, 16(1), 64-66.
- Tsao, H., Danneels, L. A., & Hodges, P. W. (2011). ISSLS prize winner: Smudging the motor brain in young adults with recurrent low back pain. *Spine (Phila Pa 1976)*, 36(21), 1721-1727.
- Tsao, H., Galea, M. P., & Hodges, P. W. (2008). Reorganization of the motor cortex is associated with postural control deficits in recurrent low back pain. *Brain*, 131(Pt 8), 2161-2171.
- Tsao, H., & Hodges, P. W. (2008). Persistence of improvements in postural strategies following motor control training in people with recurrent low back pain. *J Electromyogr Kinesiol*, 18(4), 559-567.
- Tsao, H., Tucker, K. J., & Hodges, P. W. (2011). Changes in excitability of corticomotor inputs to the trunk muscles during experimentally-induced acute low back pain. *Neuroscience*, 181, 127-133.
- Turbeville, S. D., Cowan, L. D., Owen, W. L., Asal, N. R., & Anderson, M. A. (2003). Risk factors for injury in high school football players. *Am J Sports Med*, 31(6), 974-980.
- Tyler, T. F., McHugh, M. P., Mirabella, M. R., Mullaney, M. J., & Nicholas, S. J. (2006). Risk factors for noncontact ankle sprains in high school football players: the role of previous ankle sprains and body mass index. *Am J Sports Med*, 34(3), 471-475.
- Vad, V. B., Bhat, A. L., Basrai, D., Gebeh, A., Aspergren, D. D., & Andrews, J. R. (2004). Low back pain in professional golfers: the role of associated hip and low back range-of-motion deficits. *Am J Sports Med*, 32(2), 494-497.
- Van Deun, S., Staes, F. F., Stappaerts, K. H., Janssens, L., Levin, O., & Peers, K. K. (2007). Relationship of chronic ankle instability to muscle activation patterns during the transition from double-leg to single-leg stance. *Am J Sports Med*, 35(2), 274-281.
- van Dieen, J. H., Selen, L. P., & Cholewicki, J. (2003). Trunk muscle activation in low-back pain patients, an analysis of the literature. *J Electromyogr Kinesiol*, 13(4), 333-351.
- Van Dillen, L. R., McDonnell, M. K., Fleming, D. A., & Sahrman, S. A. (2000). Effect of knee and hip position on hip extension range of motion in individuals with and without low back pain. *J Orthop Sports Phys Ther*, 30(6), 307-316.
- Van Dillen, L. R., Sahrman, S. A., Caldwell, C. A., McDonnell, M. K., Bloom, N., & Norton, B. J. (2006). Trunk rotation-related impairments in people with low back pain who participated in 2 different types of leisure activities: a secondary analysis. *J Orthop Sports Phys Ther*, 36(2), 58-71.
- Vicenzino, B., Branjerdporn, M., Teys, P., & Jordan, K. (2006). Initial changes in posterior talar glide and dorsiflexion of the ankle after mobilization with movement in individuals with recurrent ankle sprain. *J Orthop Sports Phys Ther*, 36(7), 464-471.
- Vicenzino, B., Paungmali, A., & Teys, P. (2007). Mulligan's mobilization-with-movement, positional faults and pain relief: current concepts from a critical review of literature. *Man Ther*, 12(2), 98-108.
- Wainner, R. S., Whitman, J. M., Cleland, J. A., & Flynn, T. W. (2007). Regional interdependence: a musculoskeletal examination model whose time has come. *J Orthop Sports Phys Ther*, 37(11), 658-660.

- Wang, H. K., Chen, C. H., Shiang, T. Y., Jan, M. H., & Lin, K. H. (2006). Risk-factor analysis of high school basketball-player ankle injuries: a prospective controlled cohort study evaluating postural sway, ankle strength, and flexibility. *Arch Phys Med Rehabil*, 87(6), 821-825.
- Watson, A. W. (1999). Ankle sprains in players of the field-games Gaelic football and hurling. *J Sports Med Phys Fitness*, 39(1), 66-70.
- Weinstein, J. N., Lurie, J. D., Tosteson, T. D., Skinner, J. S., Hanscom, B., Tosteson, A. N., et al. (2006). Surgical vs nonoperative treatment for lumbar disk herniation: the Spine Patient Outcomes Research Trial (SPORT) observational cohort. *JAMA*, 296(20), 2451-2459.
- Weinstein, J. N., Tosteson, T. D., Lurie, J. D., Tosteson, A. N., Hanscom, B., Skinner, J. S., et al. (2006). Surgical vs nonoperative treatment for lumbar disk herniation: the Spine Patient Outcomes Research Trial (SPORT): a randomized trial. *JAMA*, 296(20), 2441-2450.
- Welsh, C., Hanney, W. J., Podschun, L., & Kolber, M. J. (2010). Rehabilitation of a female dancer with patellofemoral pain syndrome: applying concepts of regional interdependence in practice. *N Am J Sports Phys Ther*, 5(2), 85-97.
- Whittaker, J. L. (2008). Ultrasound imaging of the lateral abdominal wall muscles in individuals with lumbopelvic pain and signs of concurrent hypocapnia. *Man Ther*, 13(5), 404-410.
- Wiesler, E. R., Hunter, D. M., Martin, D. F., Curl, W. W., & Hoen, H. (1996). Ankle flexibility and injury patterns in dancers. *Am J Sports Med*, 24(6), 754-757.
- Willson, J. D., Dougherty, C. P., Ireland, M. L., & Davis, I. M. (2005). Core stability and its relationship to lower extremity function and injury. *J Am Acad Orthop Surg*, 13(5), 316-325.
- Witvrouw, E., Danneels, L., Asselman, P., D'Have, T., & Cambier, D. (2003). Muscle flexibility as a risk factor for developing muscle injuries in male professional soccer players. A prospective study. *Am J Sports Med*, 31(1), 41-46.
- Yoshida, Y., Mizner, R. L., Ramsey, D. K., & Snyder-Mackler, L. (2008). Examining outcomes from total knee arthroplasty and the relationship between quadriceps strength and knee function over time. *Clin Biomech (Bristol, Avon)*, 23(3), 320-328.
- Zazulak, B. T., Hewett, T. E., Reeves, N. P., Goldberg, B., & Cholewicki, J. (2007a). Deficits in neuromuscular control of the trunk predict knee injury risk: a prospective biomechanical-epidemiologic study. *Am J Sports Med*, 35(7), 1123-1130.
- Zazulak, B. T., Hewett, T. E., Reeves, N. P., Goldberg, B., & Cholewicki, J. (2007b). The effects of core proprioception on knee injury: a prospective biomechanical-epidemiological study. *Am J Sports Med*, 35(3), 368-373.
- Zemper, E. D. (2003). Two-year prospective study of relative risk of a second cerebral concussion. *Am J Phys Med Rehabil*, 82(9), 653-659.