

REFERENCES

The references provided refer to the citations numbered in the Science Speak boxes. For a full list of references pertaining to the information covered in this book—more specifically, the studies cited in the main narrative—please go to glutelabbook.com.

Chapter 1: Glute Training for Aesthetics: Science Speak: Improved Aesthetics

1. Kanehisa, H., Nagareda, H., Kawakami, Y., Akima, H., Masani, K., Kouzaki, M., & Fukunaga, T. (2002). "Effects of equivolume isometric training programs comprising medium or high resistance on muscle size and strength." *European Journal of Applied Physiology* 87(2): 112–119.
2. Tracy, B. L., Ivey, F. M., Hurlbut, D., Martel, G. F., Lemmer, J. T., Siegel, E. L. & Hurley, B. F. (1999). "Muscle quality. II. Effects of strength training in 65- to 75-yr-old men and women." *Journal of Applied Physiology* 86(1): 195–201.
3. Seynnes, O. R., de Boer, M., & Narici, M. V. (2007). "Early skeletal muscle hypertrophy and architectural changes in response to high-intensity resistance training." *Journal of Applied Physiology* 102(1): 368–373.
4. Wakahara, T., Fukutani, A., Kawakami, Y., & Yanai, T. (2013). "Nonuniform muscle hypertrophy: its relation to muscle activation in training session." *Medicine & Science in Sports & Exercise* 45(11): 2158–65.
5. Børssheim, E., & Bahr, R. (2003). "Effect of exercise intensity, duration and mode on post-exercise oxygen consumption." *Sports Medicine* 33(14): 1037–60.
6. Heden, T., Lox, C., Rose, P., Reid, S., & Kirk, E. P. (2011). "One-set resistance training elevates energy expenditure for 72 h similar to three sets." *European Journal of Applied Physiology* 111(3): 477–484.

7. Farinatti, P., Castinheiras Neto, A. G., & da Silva, N. L. (2012). "Influence of resistance training variables on excess post-exercise oxygen consumption: a systematic review." *International Scholarly Research Notices*, 2013.
8. Paoli, A., Moro, T., Marcolin, G., Neri, M., Bianco, A., Palma, A., & Grimaldi, K. (2012). "High-intensity interval resistance training (HIRT) influences resting energy expenditure and respiratory ratio in non-dieting individuals." *Journal of Translational Medicine* 10: 237.

Chapter 2: Glute Training for Health: Science Speak: Reducing Risk of Injury and Pain

1. Alkjćr, T., Wieland, M. R., Andersen, M. S., Simonsen, E. B., & Rasmussen, J. (2012). "Computational modeling of a forward lunge: towards a better understanding of the function of the cruciate ligaments." *Journal of Anatomy* 221(6): 590–597.
2. Stecco, A., Gilliar, W., Hill, R., Fullerton, B., & Stecco, C. (2013). "The anatomical and functional relation between gluteus maximus and fascia lata." *Journal of Bodywork and Movement Therapies* 17(4): 512.
3. Bryanton, M. A., Carey, J. P., Kennedy, M. D., & Chiu, L. Z. (2015). "Quadriceps effort during squat exercise depends on hip extensor muscle strategy." *Sports Biomechanics* 14(1): 122–138.
4. Lewis, C. L., Sahrmann, S. A., & Moran, D. W. (2009). "Effect of position and alteration in synergist muscle force contribution on hip forces when performing hip strengthening exercises." *Clinical Biomechanics* 24(1): 35–42.
5. See note 3 above.
6. Vigotsky, A. D., & Bryanton, M. A. (2016). "Relative muscle contributions to net joint moments in the barbell back squat." American Society of Biomechanics 40th Annual Meeting, North Carolina State University, Raleigh, NC.
7. Liu, H., Garrett, W. E., Moorman, C. T., & Yu, B. (2012). "Injury rate, mechanism, and risk factors of hamstring strain injuries in sports: a review of the literature." *Journal of Sport and Health Science* 1(2): 92–101.
8. Mendiguchia, J., Alentorn-Geli, E., Idoate, F., & Myer, G. D. (2013). "Rectus femoris muscle

- injuries in football: a clinically relevant review of mechanisms of injury, risk factors and preventive strategies." *British Journal of Sports Medicine* 47(6): 359–366.
9. Ryan, J., DeBurca, N., & McCreesh, K. (2014). "Risk factors for groin/hip injuries in field-based sports: a systematic review." *British Journal of Sports Medicine* 48(14): 1089–96.
 10. Wiemann, K., & Tidow, G. (1995). "Relative activity of hip and knee extensors in sprinting-implications for training." *New Studies in Athletics* 10: 29–49.
 11. Khayambashi, K., Ghoddosi, N., Straub, R. K., & Powers, C. M. (2016). "Hip muscle strength predicts noncontact anterior cruciate ligament injury in male and female athletes: a prospective study." *The American Journal of Sports Medicine* 44(2): 355–361.
 12. Hollman, J. H., Ginos, B. E., Kozuchowski, J., Vaughn, A. S., Krause, D. A., & Youdas, J. W. (2009). "Relationships between knee valgus, hip-muscle strength, and hip-muscle recruitment during a single-limb step-down." *Journal of Sport Rehabilitation* 18(1): 104.
 13. Hollman, J. H., Hohl, J. M., Kraft, J. L., Strauss, J. D., & Traver, K. J. (2013). "Modulation of frontal-plane knee kinematics by hip-extensor strength and gluteus maximus recruitment during a jump-landing task in healthy women." *Journal of Sport Rehabilitation* 22(3): 184–90.
 14. Padua, D. A., Bell, D. R., & Clark, M. A. (2012). "Neuromuscular characteristics of individuals displaying excessive medial knee displacement." *Journal of Athletic Training* 47(5): 525.
 15. Nyman, E., & Armstrong, C. W. (2015). "Real-time feedback during drop landing training improves subsequent frontal and sagittal plane knee kinematics." *Clinical Biomechanics* 30(9): 988–994.
 16. Thomson, C., Krouwel, O., Kuisma, R., & Hebron, C. (2016). "The outcome of hip exercise in patellofemoral pain: a systematic review." *Manual Therapy* 26: 1–30.
 17. Zalawadia, A., Ruparelia, S., Shah, S., Parekh, D., Patel, S., Rathod, S. P., and Patel, S. V. (2010). "Study of femoral neck anteversion of adult dry femora in Gujarat region." *National Journal of Integrated Research in Medicine* 1(3): 7–11.
 18. Beck, M., Kalhor, M., Leunig, M., & Ganz, R. (2005). "Hip morphology influences the pattern of damage to the acetabular cartilage femoroacetabular impingement as a cause of early osteoarthritis of the hip." *Journal of Bone & Joint Surgery, British Volume* 87(7): 1012–18.
 19. Lewis, C. L., Sahrmann, S. A., & Moran, D. W. (2007). "Anterior hip joint force increases with hip

- extension, decreased gluteal force, or decreased iliopsoas force." *Journal of Biomechanics* 40(16): 3725–31.
20. Interview with Stuart McGill by Bret Contreras, retrieved from
<https://bretcontreras.com/transcribed-interview-with-stu-mcgill/>
21. Neumann, D. A. (2010). "Kinesiology of the hip: a focus on muscular actions." *Journal of Orthopaedic & Sports Physical Therapy* 40(2): 82–94.
22. McGill, S. M., & Karpowicz, A. (2009). "Exercises for spine stabilization: motion/motor patterns, stability progressions, and clinical technique." *Archives of Physical Medicine and Rehabilitation* 90(1): 118–126.
23. Gibbons, S. G. T., & Mottram, S. L. (2004). "The anatomy of the deep sacral part of the gluteus maximus and the psoas muscle: a clinical perspective." Proceedings of the 5th Interdisciplinary World Congress on Low Back Pain. November 7–11, Melbourne, Australia.
24. Barker, P. J., Hapuarachchi, K. S., Ross, J. A., Sambaliew, E., Ranger, T. A., & Briggs, C. A. (2014). "Anatomy and biomechanics of gluteus maximus and the thoracolumbar fascia at the sacroiliac joint." *Clinical Anatomy* 27(2): 234–240.
25. Vleeming, A., Van Wingerden, J. P., Snijders, C. J., Stoeckart, R., & Stijnen, T. (1989). "Load application to the sacrotuberous ligament: influences on sacroiliac joint mechanics." *Clinical Biomechanics* 4(4): 204–209.
26. Snijders, C. J., Vleeming, A., & Stoeckart, R. (1993). "Transfer of lumbosacral load to iliac bones and legs: part 1: biomechanics of self-bracing of the sacroiliac joints and its significance for treatment and exercise." *Clinical Biomechanics* 8(6): 285–294.
27. Lafond, D., Normand, M. C., & Gosselin, G. (1998). "Rapport force/déplacement du sacrum et efficacité du mécanisme de verrouillage de l'articulation sacro-iliaque; Étude en conditions expérimentales in vivo." *The Journal of the Canadian Chiropractic Association* 42(2): 90.
28. Cohen, S. P. (2005). "Sacroiliac joint pain: a comprehensive review of anatomy, diagnosis, and treatment." *Anesthesia & Analgesia* 101(5): 1440–53.

Chapter 3: Glute Training for Strength: Science Speak: Hip Thrust Strength

1. Contreras, B. (2015, August 4). "Squats versus hip thrusts part II: the twin experiment." [Blog post]. Retrieved from <https://bretcontreras.com/squats-versus-hip-thrusts-part-ii-the-twin-experiment/>.
2. Contreras, B., Vigotsky, A. D., Schoenfeld, B. J., Beardsley, C., McMaster, D. T., Reyneke, J. H., & Cronin, J. B. (2017). "Effects of a six-week hip thrust vs. front squat resistance training program on performance in adolescent males: a randomized controlled trial." *The Journal of Strength & Conditioning Research* 31(4): 999–1008.
3. Lin, K. H., Wu, C. M., Huang, Y. M., & Cai, Z. Y. (2017). "Effects of hip thrust training on the strength and power performance in collegiate baseball players." *Journal of Sports Science* 5: 178–184.
4. Hammond, A., Perrin, C., Steele, J., Giessing, J., Gentil, P., & Fisher, J. P. (2019). "The effects of a 4-week mesocycle of barbell back squat or barbell hip thrust strength training upon isolated lumbar extension strength." *PeerJ*, published ahead of print.

Chapter 4: Glute Training for Performance: Science Speak: Function and Performance

1. Shin, S. J., Kim, T. Y., & Yoo, W. G. (2013). "Effects of various gait speeds on the latissimus dorsi and gluteus maximus muscles associated with the posterior oblique sling system." *Journal of Physical Therapy Science* 25(11): 1391.
2. Kim, T. Y., Yoo, W. G., An, D. H., Oh, J. S., & Shin, S. J. (2013b). "The effects of different gait speeds and lower arm weight on the activities of the latissimus dorsi, gluteus medius, and gluteus maximus muscles." *Journal of Physical Therapy Science* 25(11): 1483.
3. Lewis, J., Freisinger, G., Pan, X., Siston, R., Schmitt, L., & Chaudhari, A. (2015). "Changes in lower extremity peak angles, moments and muscle activations during stair climbing at different speeds." *Journal of Electromyography and Kinesiology* 25(6): 982–989.
4. Savelberg, H. H. C. M., Fastenau, A., Willems, P. J. B., & Meijer, K. (2007). "The load/capacity ratio affects the sit-to-stand movement strategy." *Clinical Biomechanics* 22(7): 805–812.
5. McGill, S. M., & Marshall, L. W. (2012). "Kettlebell swing, snatch, and bottoms-up carry: back and hip muscle activation, motion, and low back loads." *The Journal of Strength & Conditioning*

Research 26(1): 16.

6. McGill, S. M., McDermott, A., & Fenwick, C. M. (2009b). "Comparison of different strongman events: trunk muscle activation and lumbar spine motion, load, and stiffness." *The Journal of Strength & Conditioning Research* 23(4): 1148–61.
7. Winwood, P. W., Keogh, J. W., & Harris, N. K. (2012). "Interrelationships between strength, anthropometrics, and strongman performance in novice strongman athletes." *The Journal of Strength & Conditioning Research* 26(2): 513–522.
8. See note 6 above.
9. Beardsley, C., & Contreras, B. (2014). "The increasing role of the hip extensor musculature with heavier compound lower-body movements and more explosive sport actions." *Strength & Conditioning Journal* 36(2): 49–55.
10. Bryanton, M. A., & Chiu, L. Z. (2014). "Hip- versus knee-dominant task categorization oversimplifies multijoint dynamics." *Strength & Conditioning Journal* 36(4): 98–99.
11. Beardsley, C., & Contreras, B. (2014). "Increasing role of hips supported by electromyography and musculoskeletal modeling." *Strength & Conditioning Journal* 36(4): 100–101.
12. Dorn, T. W., Schache, A. G., & Pandy, M. G. (2012). "Muscular strategy shift in human running: dependence of running speed on hip and ankle muscle performance." *The Journal of Experimental Biology* 215(11): 1944–56.
13. Kyröläinen, H., Komi, P. V., & Belli, A. (1999). "Changes in muscle activity patterns and kinetics with increasing running speed." *The Journal of Strength & Conditioning Research* 13(4): 400–406.
14. Kyröläinen, H. K., Belli, A., & Komi, P. V. (2001). "Biomechanical factors affecting running economy." *Medicine & Science Sports & Exercise* 33(8): 1330–7.
15. Kyröläinen, H., Avela, J., & Komi, P. V. (2005). "Changes in muscle activity with increasing running speed." *Journal of Sports Sciences* 23(10): 1101–9.
16. Willson, J. D., Kerozek, T. W., Arndt, R. L., Reznichek, D. A., & Straker, J. S. (2011). "Gluteal muscle activation during running in females with and without patellofemoral pain syndrome." *Clinical Biomechanics* 26(7): 735–740.
17. Inaba, Y., Yoshioka, S., Iida, Y., Hay, D. C., & Fukashiro, S. (2013). "A biomechanical study of

- side steps at different distances." *Journal of Applied Biomechanics* 29(3): 336–345.
18. Shimokochi, Y., Ide, D., Kokubu, M., & Nakaoji, T. (2013). "Relationships among performance of lateral cutting maneuver from lateral sliding and hip extension and abduction motions, ground reaction force, and body center of mass height." *The Journal of Strength & Conditioning Research* 27(7): 1851–60.
 19. Roach, N. T., & Lieberman, D. E. (2014). "Upper body contributions to power generation during rapid, overhand throwing in humans." *Journal of Experimental Biology* 217 (Pt 12): 2139–49.
 20. Campbell, B. M., Stodden, D. F., & Nixon, M. K. (2010). "Lower extremity muscle activation during baseball pitching." *The Journal of Strength & Conditioning Research* 24(4): 964–971.
 21. Oliver, G. D., & Keeley, D. W. (2010). "Gluteal muscle group activation and its relationship with pelvis and torso kinematics in high-school baseball pitchers." *The Journal of Strength & Conditioning Research* 24(11): 3015–22.

Chapter 5: Anatomy of the Glutes

Science Speak: Differences Between Male and Female Hip Anatomy

1. Wang, S. C., Brede, C., Lange, D., Poster, C. S., Lange, A. W., Kohoyda-Inglis, C., Sochor, M. R., Ipaktchi, K., & Rowe, S. A. (2004). "Gender differences in hip anatomy: possible implications for injury tolerance in frontal collisions." *Annals of Advances in Automotive Medicine* 48: 287–301.
2. Musielak, B., Rychlik, M., & Jozwiak, M. (2016). "Sexual dimorphism of acetabular anatomy based on three-dimensional computed tomography image of pelvises." *Journal of Orthopedics, Traumatology and Rehabilitation* 18(5): 451–459.
3. Seike, K., Koda, K., Oda, K., Kosugi, C., Shimizu, K., & Miyazaki, M. (2009). "Gender differences in pelvic anatomy and effects on rectal cancer surgery." *Hepatogastroenterology* 56(89): 111–5.
4. Bailey, J. F., Sparrey, C. J., Been, E., & Kramer, P. A. (2016). "Morphological and postural sexual dimorphism of the lumbar spine facilitates greater lordosis in females." *Journal of Anatomy* 229(1): 82–91.

5. Czuppon, S., Prather, H., Hunt, D. M., Steger-May, K., Bloom, N. J., Clohisy, J. C., Larsen, R., & Harris-Hayes, M. (2017). "Gender-dependent differences in hip range of motion and impingement testing in asymptomatic college freshman athletes." *Journal of Injury Function and Rehabilitation* 9(7): 660–667.
6. Hogg, J. A., Schmitz, R. J., Nguyen, A. D., & Shultz, S. J. (2018). "Passive hip range-of-motion values across sex and sport." *Journal of Athletic Training* 53(6): 560–567.
7. Grelsamer, R. P., Dubey, A., & Weinstein, C. H. (2005). "Men and women have similar Q angles: a clinical and trigonometric evaluation." *Journal of Bone and Joint Surgery* 87(11): 1498–1501.
8. Russell, K. A., Palmieri, R. M., Zinder, S. M., & Ingersoll, C. D. (2006). "Sex differences in valgus knee angle during a single-leg drop jump." *Journal of Athletic Training* 41(2): 166–171.
9. Norton, B. J., Sahrmann, S. A., & Van Dillen, L. R. (2004). "Differences in measurements of lumbar curvature related to gender and low back pain." *Journal of Orthopaedic & Sports Physical Therapy* 34(9): 524–534.
10. Preininger, B., Schmorl, K., von Roth, P., Winkler, T., Matziolis, G., Perka, C., & Tohtz, S. (2012). "The sex specificity of hip-joint muscles offers an explanation for better results in men after total hip arthroplasty." *International Orthopaedics* 36(6): 1143–8.

Science Speak: Muscle Size

11. Ito, J. (1996). "Morphological analysis of the human lower extremity based on the relative muscle weight." *Okajimas Folia Anatomica Japonica* 73(5): 247–251.
12. Ito, J., Moriyama, H., Inokuchi, S., & Goto, N. (2003). "Human lower limb muscles: an evaluation of weight and fiber size." *Okajimas Folia Anatomica Japonica* 80(2–3): 47–55.
13. Pohtilla, J. F. (1969). "Kinesiology of hip extension at selected angles of pelvifemoral extension." *Archives of Physical Medicine and Rehabilitation* 50(5): 241–250.
14. Arokoski, M. H., Arokoski, J. P., Haara, M., Kankaanpää, M., Vesterinen, M., Niemitukia, L. H., & Helminen, H. J. (2002). "Hip muscle strength and muscle cross sectional area in men with and without hip osteoarthritis." *The Journal of Rheumatology* 29(10): 2185–95.
15. Kamaz, M., Kiresi, D., Oguz, H., Emlik, D., & Levendoglu, F. (2007). "CT measurement of trunk

- muscle areas in patients with chronic low back pain." *Diagnostic and Interventional Radiology* 13(3): 144–148.
16. Wu, G. A., & Bogie, K. (2009). "Assessment of gluteus maximus muscle area with different image analysis programs." *Archives of Physical Medicine and Rehabilitation* 90(6): 1048–54.
17. Ahedi, H., Aitken, D., Scott, D., Blizzard, L., Cicuttini, F., & Jones, G. (2014). "The association between hip muscle cross-sectional area, muscle strength, and bone mineral density." *Calcified Tissue International* 95(1): 64–72.
18. Yasuda, T., Fukumura, K., Fukuda, T., Uchida, Y., Iida, H., Meguro, M., & Nakajima, T. (2014). "Muscle size and arterial stiffness after blood flow-restricted low-intensity resistance training in older adults." *Scandinavian Journal of Medicine & Science in Sports* 24(5): 799–806.
19. Niinimäki, S., Häkkinen, L., Nikander, R., Abe, S., Knüsel, C., & Sievänen, H. (2016). "The cross-sectional area of the gluteus maximus muscle varies according to habitual exercise loading: Implications for activity-related and evolutionary studies." *HOMO—Journal of Comparative Human Biology* 67(2): 125–137.
20. Uemura, K., Takao, M., Sakai, T., Nishii, T., & Sugano, N. (2016). "Volume increases of the gluteus maximus, gluteus medius, and thigh muscles after hip arthroplasty." *The Journal of Arthroplasty* 31(4): 906–912.
21. See note 10 above.
22. See note 19 above.

Science Speak: Muscle Architecture

23. Lieber, R. L., & Fridén, J. (2000). "Functional and clinical significance of skeletal muscle architecture." *Muscle & Nerve* 23(11): 1647–66.
24. Ward, S. R., Eng, C. M., Smallwood, L. H., & Lieber, R. L. (2009). "Are current measurements of lower extremity muscle architecture accurate?" *Clinical Orthopaedics and Related Research* 467(4): 1074–82.
25. Barker, P. J., Hapuarachchi, K. S., Ross, J. A., Sambaliew, E., Ranger, T. A., & Briggs, C. A. (2014). "Anatomy and biomechanics of gluteus maximus and the thoracolumbar fascia at the sacroiliac joint." *Clinical Anatomy* 27(2): 234–240.

26. Friederich, J. A., & Brand, R. A. (1990). "Muscle fiber architecture in the human lower limb." *Journal of Biomechanics* 23(1): 91–95.
27. Horsman, M. K., Koopman, H. F. J. M., Van der Helm, F. C. T., Prosé, L. P., & Veeger, H. E. J. (2007). "Morphological muscle and joint parameters for musculoskeletal modelling of the lower extremity." *Clinical Biomechanics* 22(2): 239–247.

Chapter 6: Function of the Glutes

Joint Actions

1. Neumann, D. A. (2010). "Kinesiology of the hip: a focus on muscular actions." *Journal of Orthopaedic & Sports Physical Therapy* 40(2): 82–94.
2. Wilson, J., Ferris, E., Heckler, A., Maitland, L., & Taylor, C. (2005). "A structured review of the role of gluteus maximus in rehabilitation." *New Zealand Journal of Physiotherapy* 33(3).

Science Speak: Hip Extension

3. Gibbons, S. G. T., & Mottram, S. L. (2004). "The anatomy of the deep sacral part of the gluteus maximus and the psoas muscle: a clinical perspective." Proceedings of the 5th Interdisciplinary World Congress on Low Back Pain. November 7–11, Melbourne, Australia.
4. Dostal, W. F., Soderberg, G. L., & Andrews, J. G. (1986). "Actions of hip muscles." *Physical Therapy* 66(3): 351.
5. Blemker, S. S., & Delp, S. L. (2005). "Three-dimensional representation of complex muscle architectures and geometries." *Annals of Biomedical Engineering* 33(5): 661–673.
6. Németh, G., & Ohlsén, H. (1985). "In vivo moment arm lengths for hip extensor muscles at different angles of hip flexion." *Journal of Biomechanics* 18(2): 129–140.
7. Contreras, B., Vigotsky, A. D., Schoenfeld, B. J., Beardsley, C., & Cronin, J. (2015). "A comparison of two gluteus maximus EMG maximum voluntary isometric contraction positions." *PeerJ* 3: e1261.
8. Anders, M. (2006). *Glutes to the Max*. ACE, 7.
9. Yamashita, N. (1988). "EMG activities in mono- and bi-articular thigh muscles in combined hip

- and knee extension." *European Journal of Applied Physiology and Occupational Physiology* 58(3): 274–277.
10. Fischer, F. J., & Houtz, S. J. (1968). "Evaluation of the function of the gluteus maximus muscle: an electromyographic study." *American Journal of Physical Medicine & Rehabilitation* 47(4): 182.
11. Worrell, T. W., Karst, G., Adamczyk, D., Moore, R., Stanley, C., Steimel, B., & Steimel, S. (2001). "Influence of joint position on electromyographic and torque generation during maximal voluntary isometric contractions of the hamstrings and gluteus maximus muscles." *The Journal of Orthopaedic and Sports Physical Therapy* 31(12): 730.
12. Kang, S. Y., Jeon, H. S., Kwon, O., Cynn, H. S., & Choi, B. (2013). "Activation of the gluteus maximus and hamstring muscles during prone hip extension with knee flexion in three hip abduction positions." *Manual Therapy* 18(4): 303–307.
13. Suehiro, T., Mizutani, M., Okamoto, M., Ishida, H., Kobara, K., Fujita, D., & Watanabe, S. (2014). "Influence of hip joint position on muscle activity during prone hip extension with knee flexion." *Journal of Physical Therapy Science* 26(12): 1895.
14. Queiroz, B. C., Cagliari, M. F., Amorim, C. F., & Sacco, I. C. (2010). "Muscle activation during four Pilates core stability exercises in quadruped position." *Archives of Physical Medicine and Rehabilitation* 91(1): 86–92.
15. Sakamoto, A. C. L., Teixeira-Salmela, L. F., de Paula-Goulart, F. R., de Moraes Faria, C. D. C., & Guimarães, C. Q. (2009). "Muscular activation patterns during active prone hip extension exercises." *Journal of Electromyography and Kinesiology* 19(1): 105–112.
16. Park, S. Y., & Yoo, W. G. (2014). "Effects of hand and knee positions on muscular activity during trunk extension exercise with the Roman chair." *Journal of Electrophysiology and Kinesiology* 24(6): 972–976.
17. Kim, S. M., & Yoo, W. G. (2015). "Comparison of trunk and hip muscle activity during different degrees of lumbar and hip extension." *Journal of Physical Therapy Science* 27(9): 2717.
18. See note 15 above.

Science Speak: Hip External Rotation

19. See note 1 above.
20. See note 3 above.
21. Stecco, A., Gilliar, W., Hill, R., Fullerton, B., & Stecco, C. (2013). "The anatomical and functional relation between gluteus maximus and fascia lata." *Journal of Bodywork and Movement Therapies* 17(4): 512.
22. See note 4 above.
23. Delp, S. L., Hess, W. E., Hungerford, D. S., & Jones, L. C. (1999). "Variation of rotation moment arms with hip flexion." *Journal of Biomechanics* 32(5): 493–501.
24. Macadam, P., Cronin, J., & Contreras, B. (2015). "An examination of the gluteal muscle activity associated with dynamic hip abduction and hip external rotation exercise: a systematic review." *International Journal of Sports Physical Therapy* 10(5): 573.

Chapter 7: The Role of Genetics: Science Speak: Mechanisms of Genetic Impact on Hypertrophy

1. Petrella, J. K., Kim, J. S., Mayhew, D. L., Cross, J. M., & Bamman, M. M. (2008). "Potent myofiber hypertrophy during resistance training in humans is associated with satellite cell-mediated myonuclear addition: a cluster analysis." *Journal of Applied Physiology* 104: 1736–42.
2. Bamman, M. M., Petrella, J. K., Kim, J. S., Mayhew, D. L., & Cross, J. M. (2007). "Cluster analysis tests the importance of myogenic gene expression during myofiber hypertrophy in humans." *Journal of Applied Physiology* 102: 2232–9.
3. Puthucheary, Z., Skipworth, J. R., Rawal, J., Loosemore, M., Van Someren, K., & Montgomery, H. E. (2011). "Genetic influences in sport and physical performance." *Sports Medicine* 41(10): 845–859.
4. Seeman, E., Hopper, J. L., Young, N. R., Formica, C., Goss, P., & Tsalamandris, C. (1996). "Do genetic factors explain associations between muscle strength, lean mass, and bone density? A twin study." *The American Journal of Physiology* 270(2 Pt 1): E320.
5. Arden, N. K., & Spector, T. D. (1997). "Genetic influences on muscle strength, lean body mass, and bone mineral density: a twin study." *Journal of Bone and Mineral Research* 12(12): 2076–

81.

6. Nguyen, T. V., Howard, G. M., Kelly, P. J., & Eisman, J. A. (1998). "Bone mass, lean mass, and fat mass: same genes or same environments?" *American Journal of Epidemiology* 147(1): 3–16.
7. Bray, M. S., Hagberg, J. M., Pérusse, L., Rankinen, T., Roth, S. M., Wolfarth, B., & Bouchard, C. (2009). "The human gene map for performance and health-related fitness phenotypes: the 2006–2007 update." *Medicine & Science in Sports & Exercise* 41(1): 35.
8. Pescatello, L. S., Devaney, J. M., Hubal, M. J., Thompson, P. D., & Hoffman, E. P. (2013). "Highlights from the functional single nucleotide polymorphisms associated with human muscle size and strength or FAMuSS Study." BioMed Research International, 2013.

Chapter 8: How Muscle Grows: Science Speak: Muscle Fibers

1. Scott, W., Stevens, J., & Binder-Macleod, S. A. (2001). "Human skeletal muscle fiber type classifications." *Physical Therapy* 81(11): 1810–16.
2. Ogborn, D., & Schoenfeld, B. J. (2014). "The role of fiber types in muscle hypertrophy: implications for loading strategies." *Strength & Conditioning Journal* 36(2): 20–25.
3. Mitchell, C. J., Churchward-Venne, T. A., West, D. W., Burd, N. A., Breen, L., Baker, S. K., & Phillips, S. M. (2012). "Resistance exercise load does not determine training-mediated hypertrophic gains in young men." *Journal of Applied Physiology* 113(1): 71–77.
4. Campos, G. E., Luecke, T. J., Wendeln, H. K., Toma, K., Hagerman, F. C., Murray, T. F., & Staron, R. S. (2002). "Muscular adaptations in response to three different resistance-training regimens: specificity of repetition maximum training zones." *European Journal of Applied Physiology* 88(1–2): 50–60.
5. Johnson, M., Polgar, J., Weightman, D., & Appleton, D. (1973). "Data on the distribution of fibre types in thirty-six human muscles: an autopsy study." *Journal of the Neurological Sciences* 18(1): 111–129.
6. Širca, A., & Sušec-Michieli, M. (1980). "Selective type II fibre muscular atrophy in patients with osteoarthritis of the hip." *Journal of the Neurological Sciences* 44(2): 149–159.

Chapter 10: Exercise Categorization

Science Speak: Exercise Categorization

1. Loturco, I., Tricoli, V., Roschel, H., Nakamura, F. Y., Abad, C. C. C., Kobal, R., & González-Badillo, J. J. (2014). "Transference of traditional versus complex strength and power training to sprint performance." *Journal of Human Kinetics* 41(1): 265–273.
2. Siff, Mel. *Supertraining*. 5th Ed. Supertraining Institute, 2003: 201.
3. Siff, 240.

Science Speak: Moment Arms and Planes of Motion

4. Dostal, W. F., Soderberg, G. L., & Andrews, J. G. (1986). "Actions of hip muscles." *Physical Therapy* 66(3): 351.

Science Speak: Knee Action

5. Sakamoto, A. C. L., Teixeira-Salmela, L. F., de Paula-Goulart, F. R., de Moraes Faria, C. D. C., & Guimarães, C. Q. (2009). "Muscular activation patterns during active prone hip extension exercises." *Journal of Electromyography and Kinesiology* 19(1): 105–112.
6. Kwon, Y. J., & Lee, H. O. (2013). "How different knee flexion angles influence the hip extensor in the prone position." *Journal of Physical Therapy Science* 25(10): 1295.