

Periodisierung im Schnellkrafttraining

Literaturliste

- Aagard, P., Simonsen, E.B., Andersen, J.L., Magnusson, S.P., Dyhre-Poulsen, P. (2002): Increased rate of force development and neuronal drive of human skeletal muscle following resistance training, *Journal of Applied Physiology* 93, 1318-1326
- Aagard, P., Simonsen, E.B., Andersen, J.L., Magnusson, P., Haljaer-Kirstensen, J., Dyhre-Poulsen, P. (1997): Neuronal adaptation to strength training in man: spinal and supraspinal mechanisms, in: *Proceeding of the 2nd Annual Congress of the European College of Sport Science, Kopenhagen*, 336-337
- Abernethy, P.J., Jürimäe, J., Logan, P.A., Taylor, A.W., Thayer, R.E. (1994): Acute and chronic response of skeletal muscle to resistance exercise, *Sports Medicine* 17 (1), 22-38
- Adamczewski, H., Dickwach, H. (1991): Block Sprung, in: Joch, W., Steinbach, M. (Hrsg.): *Aktuelle Trainingsgrundlagen im Hochleistungssport*, Ph. Reinheimer, Darmstadt, 51-74
- Adams, K., O'Shea, J.P., O'Shea, K.L., Climstein, M. (1992): The effect of six weeks of squat, plyometric and squat-plyometric training on power production, *Journal of Applied Sport Science Research* (6), 36-41
- Akima, H., Kuno, S., Takahashi, H., Fukunaga, T., Katsuta, S. (2000): The use of magnetic resonance images to investigate the influence of recruitment in the relationship between torque and cross-sectional area in human muscle, *European Journal of Applied Physiology* 83, 475-480
- Alen, M., Häkkinen, K., Komi, P.V. (1984): Changes in neuromuscular performance and muscle fiber characteristics of elite power athletes self-administering androgenic and anabolic steroids, *Acta physiologica Scandinavica* 122, 535-544
- Allmann, H. (1984): *Krafttraining im Leistungssport, Die Lehre der Leichtathletik* 49, 1757-1758
- Allmann, H. (1985): Maximalkraft und Sprintleistung – Maximalkrafttraining im Sprinttraining, in: Bührle, M. (Hrsg.): *Grundlagen des Maximal- und Schnellkrafttrainings*, Verlag Hofmann Schorndorf, 282-300
- Allmann, H. (2006): *Moderne Prinzipien des Schnellkrafttrainings*, BDFL Journal, Nr.31 April 2006, 7-13
- Anderst, W.J., Eksten, F., Koceja, D.M. (1994): Effects of plyometric and explosive resistance training on lower body power, *Medicine and Science in Sport and Exercise* 26 (Suppl.), 31
- Armstrong, D.F. (1992): Power production - the key to athletic success, *National Strength and Conditioning Association Journal* 14 (5), 19-22
- Asami, T., Togari, H. (1968): Studies on the kicking abilities in soccer, *Nihon Taiiku Gakkai* 12, 267-272
- Atha, J. (1981): Strengthening muscle, *Exercise and Sports Science Review* 9, 1-73
- Baechle, T.R., Earle, R.W., Wathen, D. (2000): Resistance Training, in: Baechle, T.R., Earle, R.W. (Hrsg.): *Essentials of Strength Training And Conditioning*, Human Kinetics, Champaign IL, 395-426
- Baker, D. (1996): Improving vertical jump performance through general, special, and specific strength training: A brief review, *Journal of Strength and Conditioning Research* 10 (2), 131-136
- Baker, D. (2001a): A series of studies on the training of high intensity muscle power in rugby league football players, *Strength and Conditioning Journal* 15 (2), 198-209
- Baker, D. (2001b): Comparison of maximum upper body strength and power between professionals and college-aged rugby league players, *Journal of Strength and Conditioning Research* 15 (1), 30-35
- Baker, D. (2001c): The effects of an in-season of concurrent training on the maintenance of maximal strength and power in professional and college-aged rugby league football players, *Journal of Strength and Conditioning Research* 15 (2), 172-177
- Baker, D., Nance, S. (1999): The relationship between running speed and measures of strength and power in professional rugby league players, *Journal of Strength and Conditioning Research* 13 (3), 230-235
- Baker, D., Nance, S., Moore, M. (2001b): The load maximizes the average mechanical power output during jump squats in power-trained athletes, *Journal of Strength and Conditioning Research* 15 (1), 92-97
- Baker, D., Wilson, G., Carlyon, R. (1994): Generality versus specificity: a comparison of dynamic and isometric measures of strength and speed-strength, *European Journal of Applied Physiology* (68), 350-355
- Ball, J.R., Rich, G.Q., Wallis, E.L. (1964): Effects of isometric training on vertical jumping, *The Research Quarterly* 35 (3), 231-235
- Baratta, R., Solomonow, M., Zhou, B.H., Letson, D, Chuinard, R., D'Ambrosia, R. (1988): Muscular coactivation. The role of the antagonist musculature in maintaining knee stability, *American Journal of Sports Medicine* 16 (2), 113-122
- Bauer, T., Thayer, R.E., Baras, G. (1990): Comparison of training modalities for power development in the lower extremity, *Journal of Applied Sport Science Research* 4 (4), 115-121
- Behm, D.G., Sale, D.G. (1993): Intended rather than actual movement velocity determines the velocity-specific response, *Journal of Applied Physiology* 74, 359-368.
- Berg, A., Keul, J. (1985): Kurz- und langfristige Anpassungsvorgänge an Krafttraining, in: Bührle, M. (Hrsg.): *Grundlagen des Maximal- und Schnellkrafttrainings*, Verlag Hofmann Schorndorf, 61-80
- Berger, R.A. (1962a): Comparison of static and dynamic strength increases, *The Research Quarterly* 33 (3), 329-333
- Berger, R.A. (1962b): Effect of varied weight training programs on strength, *The Research Quarterly* 33 (2), 168-181
- Berger, R.A. (1963): Effects of dynamic and static training on vertical jumping ability, *The Research Quarterly* 34 (4), 419-424
- Berger, R.A., Henderson, J.M. (1966): Relationship of power to static and dynamic strength, *The Research Quarterly* 37 (1), 9-13
- Bigland-Ritchie, B. (1981): EMG and fatigue of human voluntary and stimulated contractions, in: Porter, R., Wehlan, J.: *Human muscle fatigue: physiological mechanism*, Ciba Foundation Symposium 82, Pitman Medical, London, 130-148
- Blakey, J., Southard, D. (1987): The combined effects of weight training and plyometrics on dynamic leg strength and leg power, *Journal of Applied Sport Science Research* (1), 14-16
- Blazevich, A.J., Jenkins, D.G. (1997): Physical performance differences between weight-trained sprinters and weight trainers, *Journal of Science and Medicine in Sport* 1 (1), 12-21
- Blazevich, A.J., Jenkins, D.G. (1998): Predicting sprint running times from isokinetic and squat lift tests: a regression analysis, *Journal of Strength and Conditioning Research* 12 (2), 101-103
- Blazevich, A.J., Jenkins, D.G. (2002): Effect of the movement speed of resistance training exercise on sprint and strength performance in concurrently training elite junior sprinters, *Journal of Sport Sciences* 20, 981-990
- Bompa, T.O. (1999): *Periodization training for sports*, Human Kinetics, Champaign IL
- Bompa, T.O. (1996): Variations of periodization of strength, *Strength and Conditioning Journal* 18 (3), 58-61
- Bompa, T.O., Cornacchia, L.J. (1988): *Serious Strength Training – Periodization for building muscle power and mass*, Human Kinetics, Champaign IL
- Bondrachuk, A. (1988): *Periodization of Sports Training*, Soviet Sports Review 23 (4), 164-166
- Bosco, C. (1992): Eine neue Methodik zur Einschätzung und Programmierung des Trainings, *Leistungssport* 22 (5), 21-28
- Brechue, W.F., Abe, T. (2002): The role of FFM accumulation and skeletal muscle architecture in powerlifting performance, *European Journal of Applied Physiology* 86, 327-336
- Brewer, C., Favre, M., Low, L. (2006, 18. September): Weight lifting for sports specific benefits, Zugriff am 18. September 2006 unter <http://coachesinfo.com/article/index/index.php?id=350&style=printable>
- Brown, L.E., Greenwood, M. (2005): Periodization essentials and innovations in resistance training protocols, *Strength and Conditioning Journal* 27 (4), 80-85
- Bührle, M. (1989): Maximalkraft - Schnellkraft - Reaktivkraft - Kraftkomponenten und ihre dimensionale Struktur, *Sportwissenschaft* 19 (3), 311-325
- Bührle, M. (1993): Schnellkraft - Theoretisches Konstrukt - physiologischer Hintergrund und Bedingungsstruktur - diagnostische Erfassung - spezifische Trainingsmethoden, *Spektrum der Sportwissenschaft* 2, 5-29
- Bührle, M., Müller, K.-J., Schmidtbleicher, D. (1982): Schlagkraft und Bewegungsschnelligkeit des Boxers, *Leistungssport* 12 (3), 246-248
- Bührle, M., Schmidtbleicher, D. (1977): Der Einfluß von Maximalkrafttraining auf die Bewegungsschnelligkeit, *Leistungssport* 7 (1), 3-10
- Bührle, M., Schmidtbleicher, D., Ressel, H. (1983): Die spezielle Diagnose der einzelnen Kraftkomponenten im Hochleistungssport, *Leistungssport* 3, 11-16
- Burger, M.E., Burger, T.A. (2002): Neuromuscular and hormonal adaptations to resistance training: Implications for strength development in female athletes, *Strength and Conditioning Journal* 24 (3), 51-59
- Burkhardt, E., Garhammer, J. (1988): Biomechanical Comparison of hang cleans and vertical jumps, *Journal of Applied Sport Science Research* 2 (3) 1988, 57
- Butcher, S.J., Craven, B.R., Sprigings, E.J.C., Chilibeck, P.D., Spink, K.S. (2001): Influence of trunk stability and leg strength training on vertical take-off velocity in athletes, *Medicine and Science in Sport and Exercise* 33 (5) suppl., S158
- Cabri, J., De Proft, E., Dufour, W., Clarys, J.P. (1988): The relation between muscular strength and kick performance, in: Reilly, T., Lees, A., Davids, K., Murphy, W.J. (Hrsg.): *Science and Football: Proceedings of the First World Congress of Science and Football*, E. & F. N. SPON, London 1987, 186-193
- Caiozzo, V.J., Perrine, J.J., Edgerton, V.R. (1980): Alterations in the force-velocity relationship, *Medicine and Science in Sports and Exercise* 12 (2), 134
- Canavan, P.K., Garrett, G.E., Armstrong, L.E. (1996): Kinematic and kinetic relationships between an olympic-style lift and the vertical jump, *Journal of Strength and Conditioning Research* 10 (2), 127-130
- Capen, E.K. (1950): The effect of systematic weight training on power, strength, and endurance, *The Research Quarterly* 21, 83-93
- Carlock, J.M., Smith, S.L., Hartman, M.J., Morris, R.T., Ciroslan, D.A., Pierce, K.C., Newton, R.U., Harman, E.A., Sands, W.A., Stone, M.H. (2004): The relationship between vertical jump power estimates and weightlifting ability: a field-test approach, *Journal of Strength and Conditioning Research* 10 (2), 534-539
- Caterisano, A., Brown, C.W., Thurmond, L.P., Perkins, D.R., Linn, K.B., Shortridge, E.A. (1999): The relationship between lower body strength and power in resistance trained athletes, *Medicine and Science in Sport and Exercise* 31 (5) suppl., S77
- Chandler, T.J., Stone, M.H. (1991): The squat exercise in athletic conditioning: a review of the literature, *National Strength and Conditioning Association Journal* 13 (5), 52-58

- Chernyak, A.V., Karimov, E.S., Butinchinov, Z.T. (1980): Distribution of load volume and intensity throughout the year (weightlifting), *Soviet Sports Review* 15, 98-101
- Chu, D.A. (1996): Explosive Power & Strength – Complex Training for Maximum Results, Human Kinetics, Champaign IL
- Cissik, J.M. (2002): Basic principles of strength training and conditioning, *NSCA's Performance Training Journal* 1 (4), 7-11
- Clarke, D.H., Henry, F.M. (1961): Neuromotor specificity and increase speed from strength development, *The Research Quarterly* 32, 315-325
- Clutch, D., Wilton, M., McGowan, C., Bryce, G.R. (1983): The effects of depth jumps and weight training on leg strength and vertical jump, *Research Quarterly for Exercise and Sport* (54), 5-10
- Cordes, K. (1991): Boxing: reasons to strength train for amateur boxing, *National Strength and Conditioning Association Journal* 13 (5), 18-21
- Costello, F. (1984): Using weight training and plyometrics to increase explosive power for football, *National Strength and Conditioning Association Journal* 6, 22-25
- Coyle, E.F., Costill, D.L., Lesmes, G.R. (1979): Leg extension power and muscle fiber composition, *Medicine Science in Sports* 11, 12-15
- Coyle, E.F., Feiring, D. (1980): Muscular power improvements: specificity of training velocity, *Medicine and Science in Sports and Exercise* 12 (2), 134
- Coyle, E.F., Feiring, D.C., Rotkis, C., Cote III, R.W., Roby, F.B., Lee, W., Wilmore, J.H. (1981): Specificity of power improvements through slow and fast isokinetic training, *Journal of Applied Physiology* 51 (6), 1437-1442
- Cronin, J.B., McNair, R.J., Marshall, R.N. (2002): The role of maximal strength and load on initial power production, *Medicine and Science in Sports & Exercise* 32, 1763-1769
- DeiB, D., Pfeiffer, U. (1991): Leistungsreserven im Schnellkrafttraining, *Sportwissenschaft für die Praxis* 10, Sportverlag Berlin
- Delecluse, C. (1997): Influence of strength training on sprint running performance - Current findings and implications for training, *Sports Medicine* 24 (3), 147-156
- Delecluse, C., Van Coppenolle, H., Willems, E., Van Leemputte, M., Diels, R., Goris, M. (1995): Influence of high-resistance and high-velocity training on sprint performance, *Medicine and Science in Sports and Exercise* 27 (8), 1203-1209
- De Marées, H. (2002): *Sportphysiologie, Sport & Buch Strauß, Köln*
- Dengel, D.R., George, T.W., Bainbridge, C., Fleck, S.J., van Handel, P.J., Kearney, J.T. (1987): Training responses in national team boxers, *Medicine and Science in Sports and Exercise* 19 (3), 47
- De Profit, E., Cabri, J., Dufour, W., Clarys, J.P. (1988): Strength training and kick performance in soccer players, in: Reilly, T., Lees, A., Davids, K., Murphy, W.J. (Hrsg.): *Science and Football: Proceedings of the First World Congress of Science and Football*, E. & F. N. SPON, London 1987, 108-113
- Derenne, C., Ho, K.W., Murphy, J. (2001): Effects of general, special, and specific resistance training on throwing velocity in baseball: a brief review, *Journal of Strength and Conditioning Research* 15 (1), 148-156
- Deutscher Fußball-Bund (Hrsg., 2004): *Fußball-Regeln 2004/2005*, Deutscher Fußball-Bund, Otto-Fleck-Schneise 6, 60528 Frankfurt am Main
- Dintiman, G.B., Ward, R.D. (1988): *Sportspeed – The #1 speed improvement program for all athletes*, Human Kinetics, Champaign IL
- DLV (Hrsg., 1993): *Rahmentrainingsplan für das Aufbautraining Sprung*, Edition Leichtathletik Band 4, Meyer & Meyer Verlag, Aachen
- Dörr, B. (1997): Mythos Kniebeuge und Eiweiß, in: Engelhardt, M., Hintermann, B., Segesser, B.: *GOTS – Manual Sporttraumatologie*, Verlag Hans Huber, Bern, 238-242
- Durck, C. (1986): Squat and power clean relationship to sprint training, *National Strength and Conditioning Association Journal* 8 (6), 40-41
- Dursenev, L.I., Raevsky, L.G. (1982): Strength training for jumpers, *Track and field Quarterly Review*, 53-55
- Dutta, P., Subramanian, S. (2002): Effects of six weeks of isokinetic strength training combined with skill training on football kicking performance, in: Spinks, W., Reilly, T., Murphy, A. (ed.): *Science and Football IV*, Routledge, London 2002, 333-340
- Ebben, W.P., Blackard, D.O. (1997): Developing a strength-power program for amateur boxing, *Strength and Conditioning Journal* 19 (1), 42-51
- Edds, M.V. Jr. (1950): Hypertrophy of nerve fibres to functionally overloaded muscles, *The Journal of Comparative Neurology* 93 (2), 259-275
- Edgerton, V.R. (1976): Neuromuscular adaptation to power and endurance work, *Canadian Journal of Applied Sport Sciences* (1), 49-58
- Edgerton, V.R., Roy, R.R., Gregor, R.J., Rugg, S. (1986): Morphological basis of skeletal muscle power output, in: Jones, N.L., McCartney, N., McComas, J. (Hrsg.): *Human muscle power*, International Symposium on Human Muscle Power, Human Kinetics Publishers, Champaign IL, 81-94
- Edman, K.A.P. (2003): Contractile performance of skeletal muscle fibres, in: Komi, P.V. (Hrsg.): *Strength and Power in Sport*, Blackwell Scientific Publications, Oxford, 114-133
- Ehlenz, H.; Grosser, M.; Zimmermann, E. (2003): *Krafttraining – Grundlagen, Methoden, Übungen, Leistungssteuerung, Trainingsprogramme*, BLV Verlagsgesellschaft mbH, München
- Enoka, R.M. (1997): Neural adaptations with chronic physical activity, in: *Journal of Biomechanics* 30, 447-455
- Fagan, C.D., Doyle-Baker, P.K. (2000): The effects of maximum strength and power training combined with plyometrics on athletic performance, *Medicine and Science in Sports and Exercise* 32 (5 suppl.), 152
- Fatouros, I.G., Jamurtas, A.Z., Leontsini, D., Taxildaris, K., Aggelousis, N., Kostopoulos, N., Buckenmeyer, P. (2000): Evaluation of plyometric exercise training, weight training, and their combination on vertical jumping performance and leg strength, *Journal of Strength and Conditioning Research* 14 (4), 470-476
- Faulkner, J.A., Claflin, D.R., McCully, K.K. (1986): Power output of fast and slow fibres from human skeletal muscle, in: Jones, N.L., McCartney, N., McComas, J. (Hrsg.): *Human muscle power*, International Symposium on Human muscle power, Human Kinetics Publishers, Champaign IL, 81-94
- Felici, F., Rosponi, A., Sbriccoli, P., Filligoi, G.C., Fattorini, L., Marchetti, M. (2001): Linear and non-linear analysis of surface electromyograms in weightlifters, *European Journal of Applied Physiology* 84, 337-342
- Fleck, S.J. (2002): Periodization of training, in: Kraemer, W.J., Häkkinen, K. (Hrsg.): *Strength Training for Sport*, Blackwell Science, Oxford, 55-68
- Fleck, S.J., Kearney, J.T. (1993): Physical conditioning for amateur boxing, in: Jordan, B.D. (ed.): *Medical aspects of boxing*, CRC Press Boca Raton, Ann Arbor, London, Tokyo, 51-92
- Fleck, S.J., Kraemer, W.J. (2003): *Designing Resistance Training Programs*, Human Kinetics, Champaign IL
- Fleschler, P. (2002): Overview of power training, *NSCA's Performance Training Journal* 1 (6), 9-11
- Ford, H.T., Puckett, J.R., Drummond, J.P., Sawyer, K., Gantt, K., Fussell, C. (1983): Effects of three combinations of plyometric and weight training programs on selected physical fitness test items, *Perceptual and Motor Skills* 56, 919-922
- Freund, H.J., Büdingen, H.J. (1978): The relationship between speed and amplitude of the fastest voluntary contractions of human muscles, *Experimental Brain Research* 31, 1-12
- Fry, A.C., Häkkinen, K., Kraemer, W.J. (2002): Special considerations in strength training, in: Kraemer, W.J., Häkkinen, K. (Hrsg.): *Strength Training for Sport*, Blackwell Science, Oxford, 135-162
- Fry, A.C., Kraemer, W.J., Weseman, C.A., Conroy, B.P. (1991): The effects of an off-season strength and conditioning program on starters and non-starters in women's intercollegiate volleyball, *Journal of Applied Sport Science Research* 5 (4), 174-181
- Fry, R.W., Morton, A.R., Keast, D. (1992): Periodization and the prevention of overtraining, *Canadian Journal of Applied Sport Sciences*, 17 (3), 241-248
- Fujimoto, K., Akima, H., Takahashi, H., Kuno, S., Katsuta, S. (1995): Muscle volume and strength of knee flexors are related to physical performance compared with knee extensors in adolescents, *Medicine & Science in Sports & Exercise* 27 suppl.5, S114
- Fukunaga, T., Miyatani, M., Tachi, M., Kouzaki, M., Kawakami, Y., Kanehisa, H. (2001): Muscle volume is a major determinant of joint torque in humans, *Acta Physiologica Scandinavica* 172, 249-255
- Garfinkel, S., Cafarelli, E. (1992): Relative changes in maximal force, EMG, and muscle cross-sectional area after isometric training, *Medicine and Science in Sports and Exercise* 24 (11), 1220-1227
- Garhammer, J. (1993): A review of power output studies of olympic and powerlifting: methodology, performance prediction, and evaluation tests, *Journal of Strength and Conditioning Research* (7), 76-89
- Garhammer, J., Gregor, R. (1992): Propulsion forces as a function of intensity for weightlifting and vertical jumping, *Journal of Applied Sport Science Research* 6 (3), 129-134
- Garhammer, J., Takano, B. (2003): *Training for Weightlifting*; in: Komi, P.V. (Hrsg.): *Strength and Power in Sport*, Blackwell Scientific Publications, Oxford, 502-515
- Goldspink, G., Harridge, St. (2003): Cellular and molecular aspects of adaptations in skeletal muscle, in: Komi, P.V. (Hrsg.): *Strength and Power in Sport*, Blackwell Scientific Publications, Oxford, 231-251
- Graham, J. (2002): Periodization research and an example application, *Strength and Conditioning Journal* 24 (6), 62-70
- Green, H.J. (1986): Muscle Power: fibre type recruitment, metabolism and fatigue, in: Jones, N.L., McCartney, N., McComas, J. (Hrsg.): *Human muscle power*, International Symposium on Human Muscle Power, Human Kinetics Publishers, Champaign IL, 65-79
- Grosser, M., Zimmermann, E., Ehlenz, M. (1984): Zu den Voraussetzungen, Inhalten, Methoden, der Periodisierung und den Grenzen des Krafttrainings für Sprinter (100-m-Lauf), in: Bührle, M. (Hrsg.): *Grundlagen des Maximal- und Schnellkrafttrainings*, Verlag Hofmann Schorndorf, 301-315
- Häkkinen, K. (1993): Changes in physical fitness in female volleyball players during the competitive season, *The Journal of Sports Medicine and Physical Fitness* 33 (3), 223-232
- Häkkinen, K., Komi, P.V. (1985): Changes in electrical and mechanical behavior of leg extensor muscles during heavy resistance strength training, *Scandinavian Journal of Sports Sciences* (7), 55-64
- Häkkinen, K., Komi, P.V., Alén, M., Kauhanen, H. (1987): EMG, muscle fibre and force production characteristics during a 1-year training period in elite weightlifters, *European Journal of Applied Physiology* 56, 419-427
- Haff, G.G. (2004): Roundtable discussion: periodization of training - part 1, *Strength and Conditioning Journal* 26 (1), 50-69
- Haff, G.G., Potteiger, J.A. (2001): A Brief Review: Explosive Exercise and Sports Performance, *Strength and Conditioning Journal* 23 (3), 13-19
- Haller, S. (1995): Schnellkraftuntersuchungen im Bereich der unteren Extremitäten dargestellt am Beispiel jugendlicher Tischtennispieler, *Trainerbrief* (2), 30-42
- Harris, R.T., Dudley, G. (2000): Neuromuscular anatomy and adaptations to conditioning, in: Baechle, T.R., Earle, R.W. (Hrsg.): *Essentials of Strength Training and Conditioning*, Human Kinetics, Champaign IL, 15-24
- Harris, G.R., Stone, M.H., O'Bryant, H.S., Proulx, C.M., Johnson, R.L. (2000): Short-term performance effects of high power, high force, or combined weight-training methods, *Journal of Strength and Conditioning Research* 14 (1), 14-20
- Hasegawa, H., Dziados, J., Newton, R.U., Fry, A.C., Kraemer, W.J., Häkkinen, K. (2002): Periodized training programmes for athletes, in: Kraemer, W.J., Häkkinen, K. (Hrsg.): *Strength Training for Sport*, Blackwell Science, Oxford, 69-134
- Hatfield, F.C. (1984): *Bodybuilding – A Scientific Approach*, Contemporary Books, Lincolnwood, Chicago
- Hatfield, F.C. (1989): *Power – A Scientific Approach*, Contemporary Books, Lincolnwood, Chicago
- Hatfield II, F. (2002): Increase your vertical jump, <http://www.dr squat.com/index.cfm?action=viewarticle&articleID=>
- Hedrick, A. (1993): Literature review: high speed resistance training, *National Strength and Conditioning Association Journal* 15 (6), 22-30
- Hedrick, A. (2004): Teaching the clean, *Strength and Conditioning Journal* 26 (4), 70-72
- Hemmling, G. (1994): Anpassungen des neuromuskulären Systems an eine neuentwickelte Trainingsmethode, *Bundesinstitut für Sportwissenschaften 5/94*, Sport & Buch Strauß, Köln
- Herrick, A.B., Stone, W.J. (1996): The effects of periodization vs. progressive resistance exercise on upper- and lower-body strength in women, *Journal of Strength and Conditioning Research* 10 (2), 72-76

- Heyden, G., Droste, J., Steinhöfer, D. (1988): Zum Zusammenhang von Maximalkraft, Schnellkraft und Bewegungsschnelligkeit, *Leistungssport* 2, 39-46
- Hobusch, F.L., McClellan, T. (1990): Sports performance series: the karate roundhouse kick, *National Strength and Conditioning Association Journal* 12 (6), 6-9 + 84-88
- Hoff, J. (2001): Maximal strength training enhances running economy and aerobic endurance performance, *Medicine and Science in Sport and Exercise* 33 (5 suppl.), 270
- Hoff, J., Almäsbakk, B. (1995): The effects of maximum strength training on throwing velocity and muscle strength in female team-handball players, *Journal of Strength and Conditioning Research* 9 (4), 255-258
- Hoff, J., Berdahl, G.O. (2000): Load dependent strength training effects on power production and performance, *Medicine and Science in Sports and Exercise* 32 (5 suppl.), 152
- Hoffman, J.R. (2002): Periodized training for the strength/power athlete, *NSCA's Performance Training Journal* 1 (9), 8-12
- Hoffman, J.R., Cooper, J., Wendell, M., Kang, J. (2004): Comparison of olympic vs. traditional power lifting training programs in football players, *Journal of Strength and Conditioning Research* 18 (1), 129-135
- Hohmann, A., Lames, M., Letzelter, M. (2002): Einführung in die Trainingswissenschaft, Limpert Verlag GmbH, Wiebelsheim
- Hollmann, W., Hettinger, Th. (2000): Sportmedizin – Grundlagen für Arbeit, Training und Präventivmedizin, Schattauer Verlagsgesellschaft mbH, Stuttgart
- Holtz, J., Divine, J., McFarland, C. (1988): Vertical Jump improvement following pre-season plyometric training, *Journal of Applied Sport Science Research* 2 (3), 59
- Hori, N., Newton, R.U., Nosaka, K. (2005): Weightlifting exercise enhance athletic performance that requires high-load speed strength, *Strength and Conditioning Journal* 27 (4), 50-55
- Howald, H. (1989): Veränderung der Muskelfaser durch Training, *Leistungssport* (2), 18-24
- Huang, Y.-M., Chang, Y.-J., Hsieh, C.-H. (2005): Nerve conduction velocity investigation in athletes with trained lower extremity for well-controlling movement, in: Wang, Q. (Hrsg.): Proceedings of XXIII International Symposium on Biomechanics in Sports - Volume 2, S503-505
- Hutton, R.S. (1989): Zentralnervensystem, in: Dirix, A., Knuttgen, H.G., Tittel, K. (Hrsg.): Olympia Buch der Sportmedizin, Deutscher Ärzte Verlag, Köln, 157-167
- Hydock, D. (2001): The weightlifting pull in power development, *Strength and Conditioning Journal* 23 (1), 32-37
- Ikai, M., Steinhaus, A.H. (1961): Some factors modifying the expression of human strength, *Journal of Applied Physiology* 16, 157-163
- Issurin, V. (2003): Aspekte der Trainingsplanung nach dem Konzept der Blockstruktur, *Leistungssport* 33 (5), 41-44
- Issurin, V., Shklier, W. (2002): Zur Konzeption der Blockstruktur im Training von hochklassifizierten Sportlern, *Leistungssport* 32 (6), 42-45
- Izquierdo, M., Häkkinen, K., Gonzalez-Badillo, J.J., Ibáñez, J., Gorostiaga, E.M. (2002): Effects of long-term training specificity on maximal strength and power of the upper and lower extremities in athletes from different sports, *European Journal of Applied Physiology* 87, 264-271
- Joch, W. (Hrsg., 1992): Rahmentrainingsplan für das Aufbautraining Sprint, Edition Leichtathletik Band 2, Meyer & Meyer Verlag, Aachen
- Jostardt-Fögen, K., Billeter, R., Hoppeler, H. (1997): Fiber type characteristics and myosin light chain expression in a world champion shot putter, *Schweizerische Zeitschrift für Sportmedizin und Sporttraumatologie* 45 (3), 160
- Kamen, G., Taylor, P., Beehler, P. (1982): Ulnar and tibial motor nerve conduction velocity in athletes and untrained individuals, *Medicine and Science in Sports and Exercise* 14, 125
- Kaneko, M., Fuchimoto, T., Toji, H., Suei, K. (1983): Training effect of different loads on the force-velocity relationship and mechanical power output in human muscle, *Scandinavian Journal of Sports Sciences* 5, 50-55
- Klitgaard, H., Zhou, M., Richter, E.A. (1990): Myosin heavy chain compositions of single fibres from m. biceps brachii of male body builders, *Acta Physiologica Scandinavica* 140, 175-180
- Komi, P.V. (1979): Neuromuscular performance: Factors influencing force and speed production, *Scandinavian Journal of Sports Sciences* (1), 2-15
- Komi, P.V. (1989): Skelettmuskulatur, in: Dirix, A., Knuttgen, H.G., Tittel, K. (Hrsg.): Olympia Buch der Sportmedizin, Deutscher Ärzte Verlag, Köln, 29-49
- Komi, P.V., Häkkinen, K. (1989): Maximalkraft und Schnellkraft, in: Dirix, A., Knuttgen, H.G., Tittel, K. (Hrsg.): Olympia Buch der Sportmedizin, Deutscher Ärzte Verlag, Köln, 157-167
- Komi, P.V., Linnamo, V., Silventoinen, P., Sillanpää, M. (2000): Force and EMG power spectrum during eccentric and concentric actions, *Medicine & Science in Sports & Exercise* 32 (10), 1757-1762
- Komi, P.V., Viitasalo, J.T., Rauramaa, R., Vihko, V. (1978): Effect of isometric strength training on mechanical, electrical, and metabolic aspects of muscle function, *European Journal of Applied Physiology* 40, 45-55
- Kraemer, W.J. (1985): Exercise prescription: chronic program variables (periodization of training), *National Strength and Conditioning Association Journal* 7 (3), 47
- Kraemer, W.J., Deschenes, M.R., Fleck, S.J. (1988): Physiological adaptations to resistance exercise - Implications for athletic conditioning, *Sports Medicine* 6, 246-256
- Kraemer, W.J., Newton, R.U. (1994): Training for improved vertical jump, *Sports Science Exchange, Gatorade Sports Science Institute* 7 (6)
- Kramer, J.B., Stone, M.H., O' Bryant, H.S., Conley, M.S., Johnson, R.L., Nieman, D.C., Honeycutt, D.R., Hoke, T.P. (1997): Effects of single vs multiple set of weight training: Impact of volume, Intensity, and variation, *Journal of Strength and Conditioning Research* 11 (3), 143-147
- Kreighbaum, E., Barthels, K.M. (1996): Biomechanics – A qualitative approach for studying human movement, Allyn & Bacon – A Simon & Schuster Company, Needham Heights MA
- Kroth, D., Wittekopf, G. (1988): Zur motorischen Leitungsschnelligkeit von Extremitätennerven bei Sportlern, *Medizin und Sport* 28 (1), 11-13
- Küchler, G. (1983): Motorik: Steuerung der Muskeltätigkeit und begleitende Anpassungsprozesse, Bausteine der modernen Physiologie - Band 8, Fischer Verlag, Stuttgart
- Lachowetz, T., Evon, J., Pastiglione, J. (1998): The effects of an upper body strength program on intercollegiate baseball throwing velocity, *Journal of Strength and Conditioning Research* 12 (2), 116-119
- Laforge, M.A., Valiant, G.A., McLean, B. (2000): Biomechanics of running, in: Hawley, J.A. (Hrsg.): Running, Blackwell Sciences, Oxford
- Lakomy, H.K.A. (2000): Physiology and biochemistry of sprinting, in: Hawley, J.A. (Hrsg.): Running, Blackwell Sciences, Oxford, 1-13
- Larson, L.A. (1940): A factor and validity analysis of strength variables and tests with a test combination of chinning, dipping and vertical jumping, *Research Quarterly* 11 (4), 82-96
- Larsson, L., Tesch, P.A. (1986): Motor unit fiber density in extremely hypertrophied skeletal muscles in man, *European Journal of Applied Physiology* 55, 130-136
- Lehnert, K., Weber, J. (1975): Untersuchungen der motorischen Nervenleitgeschwindigkeit (NLG) des Nervus ulnaris an Sportlern, *Medizin und Sport* 15 (19), 10-14
- Leonid, C., Gundega, K. (2000): Muscle contraction process relationship comparing top weightlifters to power lifters, in: Lee, C.P. (Hrsg.): 2nd International Conference on Weightlifting and Strength Training, Malaysia, 61
- Letzelter, H., Letzelter, M. (1990): Krafttraining, Rowohlt Taschenbuch Verlag GmbH, Reinbek bei Hamburg
- MacQueen, I.J. (1954): Recent advantages in technique of progressive resistance exercise (hypertrophy and power programs in weight lifting), *British Medical Journal* 2, 1193-1198
- Manolopoulos, E., Papadopoulos, C., Kellis, E. (2005): Effects of combined strength and kick coordination training on soccer kick biomechanics in amateur players, *Scandinavian Journal of Medicine and Science in Sports* 0 (0), 1-9
- Marandino, R. (1999): Using weightlifting and powerlifting combinations to train for multiple sports: pros and cons, *National Strength and Conditioning Association Journal* 21 (5), 38-39
- Marandino, R. (2002): Strength training for power, *NSCA's Performance Training Journal* 1 (9), 15-20
- Martin, D., Carl, K., Lehnert, K. (1993): Handbuch Trainingslehre, Verlag Hofmann Schorndorf, Schorndorf
- Matveev, L.R. (2000): Die projektierende Modellierung des Trainingsverlaufs im Makrozyklus, *Leistungssport* 30 (6), 50-53
- Maughan, R.J., Watson, J.S., Weir, J. (1983): Relationships between muscle strength and muscle cross-sectional area in male sprinters and endurance runners, *European Journal of Applied Physiology* 50, 309-318
- Mazzetti, S.A., Kraemer, W.J., Volek, J.S., Nindl, B.C., Gotschalk, L.A., Gomez, A.L. (2000): The effect of different training programs on upper body power in women, *Medicine and Science in Sports and Exercise* 32 (5 suppl.), 153
- McBride, J.M., Triplett-McBride, T., Davie, A., Newton, R. (2002): A comparison of strength and power characteristics between power lifters, olympic lifters, and sprinters, *Journal of Strength and Conditioning Research* 16 (1), 75-82
- McBride, J.M., Triplett-McBride, T., Davie, A., Newton, R. (2002): The effect of heavy- vs. light-load jump squats on the development of strength, power, and speed, *Journal of Strength and Conditioning Research* 16 (1), 75-82
- McCall, G.E., Byrnes, W.C., Dickinson, W.C., Pattany, P.M., Fleck, S.J. (1996): Muscle fiber hypertrophy, hyperplasia, and capillary density in college men after resistance training, *Journal of Applied Physiology* 81 (5), 2004-2012
- McClements, L.E. (1966): Power relative to strength of leg and thigh muscles, *The Research Quarterly* 37 (1), 71-78
- McDonagh, M.J.N., Davis, C.T.M. (1984): Adaptive response of mammalian skeletal muscle to exercise with high loads, *European Journal of Applied Physiology* 52, 139-155
- McDonagh, M.J.N., Hayward, C.M., Davies, C.T.M. (1983): Isometric training in human elbow flexor muscles – the effects on voluntary and electrically evoked forces, *Journal of Bone and Joint Surgery* 65 (3), 355-358
- McEvoy, K.P., Newton, R.U. (1998): Baseball throwing speed and base running speed: the effects of ballistic resistance training, *Journal of Strength and Conditioning Research* 12 (4), 216-221
- Meckel, Y., Atterbom, H., Grodjinovsky, A., Ben-Sira, D., Rotstein, A. (1995): Physiological characteristics of female 100 metre sprinters of different performance levels, *The Journal of Sports Medicine and Physical Fitness* 35 (3), 169-175
- Medvedev, A.S., Rodionov, V.I., Rogozyn, V.N., Gulyants, A.E. (1982): Training content of weightlifters in the preparatory period, *Soviet Sports Review* 17, 90-93
- Mero, A. (1988): Force-time characteristics and running velocity of male sprinters during the acceleration phase of sprinting, *Research Quarterly for Exercise and Sport* 59 (2), 94-98
- Mero, A., Luhtanen, P., Viitasalo, J.T., Komi, P.V. (1981): Relationship between the maximal running velocity, muscle fiber characteristics, force production and force relaxation of sprinters, *Scandinavian Journal of Sports Sciences* 3 (1), 16-22
- Milner-Brown, H.S., Stein, R.B., Lee, R.G. (1975): Synchronization of human motor units: possible roles of exercise and supraspinal reflexes, *Electroencephalography and Clinical Neurophysiology* 38, 245-254
- Moos, W. (1985): Prophylaktische Maßnahmen beim forcierten Krafttraining, in: Böhre, M. (Hrsg.): Grundlagen des Maximal- und Schnellkrafttrainings, Verlag Hofmann Schorndorf, 173-176
- Moosburger, K.A. (2006): Die Kniebeuge - Ist die tiefe Kniebeuge wirklich "schlecht für's Knie"? <http://gin.uibk.ac.at/thema/sportundernaehrung/kniebeuge.html> (03.04.2006)
- Morin, J.-B., Belli, A. (2003): Mechanical factors of 100m sprint performance in trained athletes, *Science & Sport* 18, 161-163
- Moss, B.M., Refsnes, P.E., Abildgaard, A., Nicolaysen, K., Jensen, J. (1997): Effects of maximal effort strength training with different loads on dynamic strength, cross sectional area, load-power and load velocity relationships, *European Journal of Applied Physiology* 75, 193-199
- Müller, H. (1991): Block Sprint, in: Joch, W., Steinbach, M. (Hrsg.): Aktuelle Trainingsgrundlagen im Hochleistungssport, Ph. Reinheimer, Darmstadt, 9-30
- Müller, K.-J. (1985): Explosivkraft - eine generelle oder spezifische Eigenschaft, in: Böhre, M. (Hrsg.): Grundlagen des Maximal- und Schnellkrafttrainings, Verlag Hofmann Schorndorf, 144-160
- Müller, K.-J. (1987): Statische und dynamische Muskelkraft – Eine empirische Grundlagenforschung, Verlag Harri Deutsch, Frankfurt, Main
- Murphy, A.J., Wilson, G.J., Pryor, J.F. (1994): Use of the isoinertial force mass relationship in the prediction of dynamic

- human performance, *European Journal of applied Physiology* 69, 250-527
- Narici, M.V., Sirtori, M.D., Mogroni, (1988): Maximal ball velocity and peak torques of hip flexor and knee extensor muscles, in: Reilly, T., Lees, A., Davids, K., Murphy, W.J. (Hrsg.): *Science and Football: Proceedings of the First World Congress of Science and Football*, E. & F. N. SPON, London 1987, 429-433
- Newton, R.U., McEvoy, K.P. (1994): Baseball throwing velocity: A comparison of medicine ball training and weight training, *Journal of Strength and Conditioning Research* 8 (3), 198-203
- O'Shea, J.P. (1976): *Scientific Principles and Methods of Strength Fitness*. Second Edition. Reading, MA: Addison-Wesley Publishing Company
- O'Shea, P. (1985a): The parallel squat, *National strength and Conditioning Association Journal* 22 (5), 4-6 + 78
- O'Shea, P. (1985b): Throwing Speed - Throwing, swinging, punching and hitting demand upper body power, *Sports Fitness* (8), 66-69 + 89-90
- O'Shea, K.L., O'Shea, J.P. (1989): Functional isometric weight training: it's effects on dynamic and static strength, *Journal of Applied Sport Science Research* 3 (2), 30-33
- Ostrowski, K.J., Wilson, G.J., Weatherby, R., Murphy, P.W., Lyttle, A.D. (1997): The effect of weight training volume on hormonal output and muscular size and function, *Journal of Strength and Conditioning Research* 11 (1), 148-154
- Pahlke, U. (1999): *Muskelgewebe*, in: Badtke, G. (Hrsg.): *Lehrbuch der Sportmedizin*, Johann Ambrosius Barth Verlag, Heidelberg, Leipzig, 19-70
- Pampus, B. (1992): Die Muskelleistung als Intensitätsparameter im Krafttraining – Untersuchung der Muskelleistungsschwelle zur Festlegung des individuellen Kraftniveaus und ihre Anwendung in der Trainingspraxis, *Theorie und Praxis der Psychomotorik – Band 12*, Gesamthochschulbibliothek Kassel
- Pampus, B. (1995): *Schnellkrafttraining – Theorie, Methoden, Praxis*, Meyer & Meyer Verlag, Aachen
- Pearson, St.J., Young, A., Macaluso, A., Devito, G., Nimmo, M.A., Cobbold, M., Harridge, St.D.R. (2002): Muscle function in elite master weightlifters, *Medicine and Science in Sport & Exercise* 34, 1199-1206
- Polhemus, R., Burkhardt, E. (1980): The effects of plyometric training drills on the physical strength gains of collegiate football players, *National Strength Coaches Association Journal* 2 (5), 14-17
- Polhemus, R., Burkhardt, E., Osina, M., Patterson, M. (1980): The effects of plyometric training with ankle and vest weights on conventional weight training programs for men and women, *National Strength Coaches Association Journal* 2 (1), 13-17
- Poliquin, Ch. (1988): Five steps to increasing the effectiveness of your strength training program, *National Strength and Conditioning Association Journal* 10 (3), 34-39
- Poprawski, B. (1988): Aspects of strength, power and speed in shot put training, *New Studies in Athletics* 3, 89-93
- Potach, D.H., Chu, D.A. (2000): Plyometric training, in: Baechle, T.R., Earle, R.W. (Hrsg.): *Essentials of Strength Training and Conditioning*, Human Kinetics, Champaign IL, 395-426
- Powers, S.K., Howley, E.T. (1994): *Exercise Physiology – Theory and Application to Fitness and Performance*, Brown & Benchmark Publishers, Dubuque IA
- Pearson, S.J., Young, A., Macaluso, A., Devito, G., Nimmo, M.A., Cobbold, M., Harridge, St.D.R. (2002): Muscle function in elite master weightlifters, *Medicine and Science in Sport & Exercise* 34, 1199-1206
- Pedemonte, J. (1982): Updated acquisitions about training periodization: part one, *National Strength and Conditioning Journal* 4 (5), 56-60
- Pedemonte, J. (1986): Historical perspectives: foundations of training periodization part II: the objective of periodization, *National Strength and Conditioning Journal* 8 (4), 26-28
- Penman, K.A. (1970): Human striated muscle ultrastructural changes accompanying increased strength without hypertrophy, *The Research Quarterly* 41, 418-424
- Pette, D. (1980): *Plasticity of muscle*, Walter de Gruyter, New York
- Pipes, T.V. (1979): High intensity, not high speed, *Athletic Journal* 59, 60 + 62
- Platonov, V.N. (1999): *Belastung – Ermüdung – Leistung – Der moderne Trainingsaufbau*, Trainerbibliothek Band 34, Philippka-Verlag, Münster
- Platonov, V.N. (2004a): Das langfristige Trainingssystem endet nicht mit dem Erreichen des Leistungshöhepunkts (Teil 1), *Leistungssport* 34 (2), 18-21
- Platonov, V.N. (2004b): Das langfristige Trainingssystem endet nicht mit dem Erreichen des Leistungshöhepunkts (Teil 2), *Leistungssport* 34 (2), 20-23
- Plisk, S.S. (2000): Speed, agility, and speed-endurance development, in: Baechle, T.R., Earle, R.W. (Hrsg.): *Essentials Of Strength Training And Conditioning*, Human Kinetics, Champaign IL, 395-426
- Plisk, S.S., Stone, M.H. (2003): Periodization strategies, *Strength and Conditioning Journal* 25 (6), 19-37
- Poletae, P., Cervera, V.O. (1995): The Russian approach to planning a weightlifting program, *National Strength and Conditioning Journal* 17 (1), 20-26
- Powers, S.K., Howley, E.T. (1994): *Exercise Physiology – Theory and Application to Fitness and Performance*, Brown & Benchmark Publishers, Dubuque Iowa
- Radcliffe, J.C., Farentinos, R.C. (1990): Sprungkrafttraining – Übungen für alle Sportarten, Meyer & Meyer Verlag, Aachen
- Radcliffe, J.C., Farentinos, R.C. (1999): High-powered plyometrics – 77 advanced exercises for explosive sports training, *Human Kinetics, Champaign IL*
- Rasch, P.J., Morehouse, L.E. (1957): Effect of static and dynamic exercise on muscular strength and hypertrophy, *Journal of Applied Physiology* 11, 29-34
- Rhea, M.R., Phillips, W.T., Burket, L.N., Stone, W.J., Ball, St.D., Alver, B.A., Thomas, A.B. (2003): A Comparison of linear and daily undulating periodized programs with equated volume and intensity for local muscular endurance, *The Journal of Strength and Conditioning Research* 17 (1), 82-87
- Roetert, E.P. (2003b): Strength training: what is the proper dose?, *Strength and Conditioning Journal* 25 (4), 72-73
- Rüegg, J.C. (1987): Excitation-contraction coupling in fast- and slow-twitch muscle fibers, *International Journal of Sports Medicine* 8, 360-364
- Rüegg, J.C. (1990): Muskel, in: Schmidt, R.F., Thews, G. (Hrsg.): *Physiologie des Menschen*, Springer Verlag, Berlin-Heidelberg-New York, 66-86
- Rutherford, O.M., Jones, D.A. (1986): The role of learning and coordination in strength training, *European Journal of Applied Physiology* 55, 100-105
- Sandler, D. (2002): A sample program for periodizing the general athlete, *NSCA's Performance Training Journal* 1 (9), 21-25
- Sale, D. (1988): Neuronal adaptation to resistance training, *Medicine and Science in Sports and Exercise* 20 (5), 135-145
- Sale, D.G. (2003): Neuronal adaptations to strength training; in: Komi, P.V. (Hrsg.): *Strength and Power in Sport*, Blackwell Scientific Publications, Oxford, 281-314
- Sale, D., MacDougall, D. (1981): Specificity in strength training; a review for the coach and athlete, *Science Periodical on Research and Technology in Sport (Physical Training, Strength W-4)*, 1-7
- Schlumberger, A. (2000): Optimierung von Trainingsstrategien im Schnellkrafttraining, *Bundesinstitut für Sportwissenschaften* 6/2000, Sport & Buch Strauß, Köln
- Schlumberger, A., Schmidtbleicher, D. (1998): Zeitlich verzögerte Effekte beim Krafttraining, *Leistungssport* 28 (3), 33-38
- Schmidtbleicher, D. (1980): Maximalkraft und Bewegungsschnelligkeit, in: Rieder, H. (Hrsg.): *Beiträge zur Bewegungsforschung im Sport – Band 3*, Limpert Verlag GmbH, Bad Homburg v.d.H.
- Schmidtbleicher, D. (1984): Strukturanalyse der motorischen Eigenschaft Kraft, *Lehre der Leichtathletik* 35 (30), 1785-1792
- Schmidtbleicher, D. (1985a): Neuromuskuläre Aspekte des Sprungkrafttrainings, in: Bühler, M. (Hrsg.): *Grundlagen des Maximal- und Schnellkrafttrainings*, Verlag Hofmann Schorn-dorf, 213-229
- Schmidtbleicher, D. (1985b): Strength training: Part 1 – Classification of methods, *Science Periodical on Research and Technology in Sport (Physical Training, Strength W-4)*, 1-12
- Schmidtbleicher, D. (1985c): Strength training: Part 2 – Structural analysis of motor strength qualities and its application to training, *Science Periodical on Research and Technology in Sport (Physical Training, Strength W-4)*, 1-10
- Schmidtbleicher, D. (1992): Training for power events, in: Komi, P.V. (Hrsg.): *Strength and Power in Sport*, Blackwell Science, Oxford, 381-395
- Schmidtbleicher, D. (2000): Biomechanische Belastungen verschiedener Sportarten - Möglichkeiten der präventiven Biomechanik, in: Zichner, L., Engelhardt, M., Freiwald, J. (Hrsg.): *Sport bei Arthrose und nach endoprothetischem Einsatz*, Rheumatologie und Orthopädie - Band 6, Novartis Pharma Verlag Nürnberg, 47-62
- Schmidtbleicher, D. (2003): Motorische Eigenschaft Kraft: Struktur, Komponenten, Anpassungserscheinungen, Trainingsmethoden und Periodisierung, in: Fritsch, W. (Hrsg.): *Rudern – erfahren, erkunden, erforschen*, Wirth-Verlag (Sport Media), Gießen, 15-40
- Schmidtbleicher, D., Haralambie, G. (1981): Changes in contractile properties of muscle after strength training in man, *European Journal of Applied Physiology* 46, 221-228
- Schnabel, G., Harre, D., Borde, A. (1994): *Trainingswissenschaften – Leistung, Training, Wettkampf*, Sportverlag, Berlin
- Schnabel, G., Thieb, G. (1993): *Lexikon Sportwissenschaften – Band 2*, Sportverlag; Berlin
- Sheppard, J.M. (2003): Strength and conditioning exercise selection in speed development, *Strength and Conditioning Journal* 25 (4), 26-30
- Shilstone, M. (1986): *Boxing: Scientific nutrition and conditioning principles for boxing: a case study of Michael Spinks*, National Strength and Conditioning Association Journal 8 (3), 43-44
- Shilstone, M., Couzens, G.S. (1993): Physical conditioning for professional boxing, in: Jordan, B.D. (ed.): *Medical aspects of boxing*, CRC Press Boca Raton, Ann Arbor, London, Tokyo, 93-102
- Shimp-Bowerman, J.A., Adams, K.J., Durham, M.P., Berning, J.M., Kipp, R.L., Barnard, K.L. (2000): Four weeks of high intensity strength training increases 1RM squat and vertical jump in trained women, *Medicine and Science in Sports and Exercise* 32 (5 suppl.), 150
- Shirley, M.E. (1992): Sports performance series: the Taekwondo side kick: a kinesiological analysis with strength and conditioning principles, *National Strength and Conditioning Association Journal* 14 (5), 7-8 + 72-78
- Silvester, L.J., Stiggins, C., McGown, C., Bryce, G.R. (1982): The effect of variable resistance and free-weight training programs on strength and vertical jump, *National Strength and Conditioning Association Journal* 3, 30-33
- Singh, P.I., Maini, B.K. (1980): The influence of muscle use on conduction velocity of motor nerve fibres, *Indian Journal of Physiology and Pharmacology* 24 (1), 65-67
- Staron, R.S., Karapondo, D.L., Kraemer, W.J., Fry, A.C., Gordon, S.E., Falke, J.E., Hagerman, F.C., Hikida, R.S. (1994): Skeletal muscle adaptations during early phase of heavy-resistance training in men and women, *Journal of Applied Physiology* 76, 1247-1255
- Staron, R.S., Leonardi, M.J., Karapondo, D.L., Malicky, E.S., Falke, J.E., Hagerman, F.C., Hikida, R.S. (1991): Strength and skeletal muscle adaptations in heavy-resistance-trained women after detraining and retraining, *Journal of Applied Physiology* 70, 631-640
- Stone, M.H. (1993): Literature review: Explosive exercises and strength, *National Strength and Conditioning Association Journal* 15 (3), 7-15
- Stone, M.H., O'Bryant, H.S. (1987): *Weight Training – A Scientific Approach*, Burgess International Group, Inc., Bellwether Press Division, Edina
- Stone, M.H., O'Bryant, H., Garhammer, J. (1981): A hypothetical model of strength training, *Journal of Sports Medicine and Physical Fitness* (21), 342-351
- Stone, M.H., O'Bryant, H.S., Garhammer, J., McMillian, J., Rozenek, R. (1982): A theoretical model of strength training, *National Strength and Conditioning Association Journal* 4 (4), 36-39
- Stone, M.H., O'Bryant, H.S., McCoy, L., Coglianesi, R., Lehmkuhl, M., Schilling, B. (2003): Power and maximum strength relationships during performance of dynamic and static weighted jumps, *Journal of Strength and Conditioning Research* 17 (1), 140-147
- Stone, M.H., Pierce, K.C., Haff, G., Koch, A.-J., Stone, M. (1999a): Periodization: Effects of manipulating volume and intensity, Part I, *Strength and Conditioning Journal* 21 (2), 56-61
- Stone, M.H., Pierce, K.C., Haff, G., Koch, A.-J., Stone, M. (1999b): Periodization: Effects of manipulating volume and intensity, Part II, *Strength and Conditioning Journal* 21 (3), 54-60

- Stone, M.H., Plisk, S.S., Stone, M.E., Schilling, B.K., O'Bryant, H.S., Pierce, K.C. (1998): Athletic performance development: volume load - 1 set vs. multiple sets, training velocity and training variation, *Journal of Strength and Conditioning* 12, 22-31
- Stone, M.H., Potteiger, J.A., Pierce, K.C., Proulx, C.M., O'Bryant, H.S. (1997) Comparison of the effects of 3 different weight training programs on the 1-RM squat: a preliminary study, *Journal of Strength and Conditioning Research* 11, 286
- Stone, M.H., Sanborn, K., O'Bryant, H.S., Hartman, M., Stone, M.E., Proulx, C., Ward, B., Hruby, J. (2003): Maximum strength-power-performance relationships in collegiate throwers, *Journal of Strength and Conditioning Research* 17 (4), 739-745
- Stowers, T., McMillan, J., Scala, D. (1983): The short-term effects of three different strength-power training methods, *National Strength and Conditioning Association Journal* 5 (3), 24-27
- Suslov, F. (2001): Annual training programmes and the sport specific fitness levels of world class athletes, *New Studies in Athletics* 16 (1/2) 2001, 63-70
- Taingahue, M., Sleivert, G. (2000): The relationship between sprint start and concentric squat performance, in: Lee, C.P. (Hrsg.): 2nd International Conference on Weightlifting and Strength Training, Malaysia, 80
- Thorstensson, A. (1989): Schnellkraft und Beschleunigung, in: Dirix, A., Knuttgen, H.G., Tittel, K. (Hrsg.): Olympia Buch der Sportmedizin, Deutscher Ärzte Verlag, Köln, 188-197
- Tidow, G., Wiemann, K. (1993): Zur Interpretation und Veränderbarkeit von Kraft-Zeit-Kurven bei explosiv-ballistischen Kräfteinsätzen, in: Voigt, H.-F. (Hrsg.): Bewegungen lesen und antworten, Czwalina, Ahrensburg, 153-192
- Tidow, G., Wiemann, K. (1994a): Zur Interpretation und Veränderbarkeit von Kraft-Zeit-Kurven bei explosiv-ballistischen Kräfteinsätzen - Teil I: Physiologische Grundlagen, *Deutsche Zeitschrift für Sportmedizin* 44 (3) 1993, 92-103
- Tidow, G., Wiemann, K. (1994b): Zur Interpretation und Veränderbarkeit von Kraft-Zeit-Kurven bei explosiv-ballistischen Kräfteinsätzen - Teil II, *Deutsche Zeitschrift für Sportmedizin* 44 (4) 1993, 136-150
- Tihanyi, J., Apor, P., Fekete, G.Y. (1982): Force-velocity-power characteristics and fiber composition in human knee extensor muscles, *European Journal of Applied Physiology* 48, 331-343
- Tokeshi, S.A., Kraemer, W.J., Nindl, B.C., Gotshalk, L.A., Marx, J.O., Harman, F.S., Lamont, H.S., Sebastianelli, W.J., Putkian, M., Fleck, S., Newton, R.U., Häkkinen, K. (1998): Power and strength in women: adaptations following six months of resistance training, *Medicine and Science in Sport and Exercise* 30 (5 suppl.), 165
- Toyoshima, S., Miyashita, M. (1973): Force-velocity relation in throwing, *The Research Quarterly* 44, 86-95
- Trzaskoma, Z., Trzaskoma, L. (2000): The effect of plyometric and weight training on leg strength and vertical jump performance, in: Lee, C.P. (Hrsg.): 2nd International Conference on Weightlifting and Strength Training, Malaysia, 101
- Toumi, H., Best, T.M., Martin, A., Poumarat, G. (2004): Muscle plasticity after weight and combined (weight + jump) training, *Medicine & Science in Sports & Exercise* 36 (9), 1580-1588
- Toumi, H., Thiery, C., Maitre, S., Martin, A., Vanneville, G., Poumarat, G. (2001): Training effects of amortization phase with eccentric/concentric variations -the vertical jump, *International Journal of Sports Medicine* 22, S605-610
- Urhausen, A., Kindermann, W. (2002): Übertraining, *Deutsche Zeitschrift für Sportmedizin* 53 (4), 121-122
- van den Tillmar, R. (2004): Effect of different training programs on the velocity of overarm throwing: a brief review, *Journal of Strength and Conditioning Research* 18 (2), 388-396
- Venable, M.P., Collins, M.A., O'Bryant, H.S., Denegar, C.R., Sedivec, M.J., Alon, G. (1991): Effect of supplemental electrical stimulation on the development of strength, vertical jump performance and power, *Journal Applied Sport Science Research* 5, 139-143
- Verchoshansky, Y.V. (1992): Ein neues Trainingssystem für zyklische Sportarten, *Trainerbibliothek Band 29*, Philippka-Verlag, Münster
- Verchoshansky, Y.V. (1995): Ein neues Trainingssystem für azyklische Sportarten, *Trainerbibliothek Band 32*, Philippka-Verlag, Münster
- Verchoshansky, Y.V., Lazarev, V.V. (1989): From the Eastern Block: principles of planning speed and strength, speed endurance training in sports, *National Strength and Conditioning Association Journal* 11 (2), 58-61
- Verchoshansky, Y.V., Tatyana, V. (1983): Speed-strength preparation of future champions, *Soviet Sports Review* 18, 166-170
- Vermeil, A., Chu, D. (1982): Periodization of strength training for professional football, *National Strength and Conditioning Association Journal* 4 (3), 54-55
- Viitasalo, J.T., Aura, O. (1984): Seasonal fluctuations of force production in high jumpers, *Canadian Journal of Applied Sport Science* 9, 209-213
- Viitasalo, J.T., Komi, P.V. (1978): Force time characteristics and fibre composition in human leg extensor muscles, *European Journal of Applied Physiology* 40, 7-15
- Wathen, D., Baechele, T.R., Earle, R.W. (2000): Training Variations: Periodization, in: Baechele, T.R., Earle, R.W. (Hrsg.): Essentials Of Strength Training And Conditioning, Human Kinetics, Champaign IL, 514-528
- Weicker, H., Strobel, G. (1994): Sportmedizin - Biochemisch-physiologische Grundlagen und ihre sportartspezifische Bedeutung, Gustav Fischer Verlag, Stuttgart
- Weigelt, S. (1997): Die sportliche Bewegungsschnelligkeit, *Bundesinstitut für Sportwissenschaften Band 1997*, 5, Sport & Buch Strauß, Köln
- Weineck, J. (2004): Optimales Training, PERIMED-spitta medizinische Verlagsgesellschaft mbH, Balingen
- Weiss, L.W., Fry, A.C., Wood, L.E., Relyea, G.E., Melton, C.: Comparative effects of deep versus shallow squat and leg-press training on vertical jumping ability and related factors, *Journal of Strength and Conditioning Research* 14 (3), 241-247
- Wedeles, C.H.A. (1949): The effect of increasing the functional load of a muscle on the composition of its motor nerve, *Journal of Anatomy* 83, 57
- Whitley, J.D., Smith, L.E. (1966): Influence of three different training programs on strength and speed of a limb movement, *The Research Quarterly* 37, 132-142
- Willoughby, D. (1991): Training volume equated: a comparison of periodized and progressive resistance weight training programs, *Journal of Human Movement Studies* 21, 233-248
- Willoughby, D.S. (1992): A Comparison of three selected weight training programs on the upper and lower body strength of trained males, *The Applied Research in Coaching and Athletics Annual* (3), 124-146
- Willoughby, D.S. (1992): A Comparison of three selected weight training programs on the upper and lower body strength of trained males, *The Applied Research in Coaching and Athletics Annual* 3, 124-146
- Willoughby, D.S., Darryn, S. (1993): The effects of mesocycle-length weight training programs involving periodization and partially equated volumes on upper and lower body strength, *Journal of Strength and Conditioning Research* 7 (1), 2-8
- Wilmore, J.H., Costill, D.L. (2004): Physiology of Sport and Exercise, Human Kinetics, Champaign IL
- Wilson, G.J., Newton, R.U., Murphy, A.J., Humphries, B.J. (1993): The optimal training load for the development of dynamic athletic performance, *Medicine and Science in Sports and Exercise* 25, 1279-1286
- Wisloff, U., Castagna, C., Helgerud, J., Jones, R., Hoff, J. (2004): Strong correlations of maximal squat strength with sprint performance and vertical jump height in elite soccer players, *British Journal of Sports Medicine* 38 (3), 285-288
- Wolbers, C.P., Sills, F.D. (1956): Development of strength in high school boys by static contractions, *The Research Quarterly* 27 (4), 446-450
- Yessis, M.: The key to strength development: variety, *National Strength and Conditioning Association Journal* 3 (3), S32-34
- Yessis, M. (1985): Boxing: means of increasing strength of the punch, *National Strength and Conditioning Association Journal* 7 (6), 65-66
- Yessis, M. (1989): Speed-strength training, *Track & Field Quarterly Review*, Winter, 43-45
- Young, W. (1989): A comparison of power development methods, *Track Technique* 109, 34843486
- Young, W. (1991): The planning of resistance training for power sports, *National Strength and Conditioning Association Journal* 13 (4), 26-29
- Young, W. (1993): Training for speed/strength: Heavy vs. light loads, *National Strength and Conditioning Association Journal* 15 (5), 34-42
- Young, W.B., Bilby, G.E. (1993): The effect of voluntary effort to influence speed of contraction on strength, muscular power, and hypertrophy development, *Journal of Strength and Conditioning Research* 7 (3), 172-178
- Young, W., McLean, B., Ardagna, J. (1995): Relationship between strength qualities and sprinting performance, *Journal of Sports Medicine and Physical Fitness* 35 (1), 13-19
- Zatsiorsky, V.M. (1992): Intensity of strength training - facts and theory: Russian and Eastern European approach, *National Strength and Conditioning Association Journal* 14 (5), 46-57
- Zatsiorsky, V.M. (1995): Science and practice of strength training, Human Kinetics, Champaign IL

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