

Literatura

- Adami, P. E., Rocchi, J., Melke, N., De Vito, G., Bernardi, M., & Macaluso, A. (2022). Physiological profile comparison between high intensity functional training, endurance and power athletes. *European Journal of Applied Physiology*, 122(3). <https://doi.org/10.1007/s00421-021-04858-3>
- Alcaraz, P. E., Sánchez-Lorente, J., & Blazevich, A. J. (2008). Physical performance and cardiovascular responses to an acute bout of heavy resistance circuit training versus traditional strength training. *Journal of Strength and Conditioning Research*, 22(3), 667–671. <https://doi.org/10.1519/JSC.0b013e31816a588f>
- Anonymous. (1797). *The repertory of patent inventions, and other discoveries and improvements in arts, manufactures, and agriculture: Being a continuation, on an enlarged plan, of the repertory of arts and manufactures*. G. and T. Wilkie.
- Bahremand, M., Hakak Dokht, E., & Moazzami, M. (2023). A comparison of CrossFit and concurrent training on myonectin, insulin resistance and physical performance in healthy young women. *Archives of Physiology and Biochemistry*, 129(3), 603–609. <https://doi.org/10.1080/13813455.2020.1853173>
- Bailey, B., Benson, A. J., & Bruner, M. W. (2019). Investigating the organisational culture of CrossFit. *International Journal of Sport and Exercise Psychology*, 17(3), 197–211. <https://doi.org/10.1080/1612197X.2017.1329223>
- Ballmann, C. G. (2021). The Influence of Music Preference on Exercise Responses and Performance: A Review. *Journal of Functional Morphology and Kinesiology*, 6(2), 33. <https://doi.org/10.3390/jfmk6020033>
- Banaszek, A., Townsend, J. R., Bender, D., Vantrease, W. C., Marshall, A. C., & Johnson, K. D. (2019). The Effects of Whey vs. Pea Protein on Physical Adaptations Following 8-Weeks of High-Intensity Functional Training (HIFT): A Pilot Study. *Sports*, 7(1), 12. <https://doi.org/10.3390/sports7010012>
- Barba-Ruíz, M., Hermosilla-Perona, F., Heredia-Elvar, J. R., Gómez-González, N., Da Silva-Grigoletto, M. E., & Muriarte-Solana, D. (2024). Muscular performance analysis in “cross” modalities: Comparison between “AMRAP,” “EMOM” and “RFT”

- configurations. *Frontiers in Physiology*, 15(1358191). <https://doi.org/10.3389/fphys.2024.1358191>
- Barfield, J., & Anderson, A. (2014). Effect of CrossFit on health related physical fitness: A pilot study. *Journal of sport and human performance*, 2(1), 23–28.
- Bernstorff, M. A., Schumann, N., Schwake, L., Somberg, O., Balke, M., Schildhauer, T., & Königshausen, M. (2024). Shoulder pathologies in CrossFit: A magnetic resonance imaging study of 51 cases. *The Journal of Sports Medicine and Physical Fitness*, 64(5), 475–482. <https://doi.org/10.23736/S0022-4707.24.15071-2>
- Bigliassi, M., Karageorghis, C. I., Bishop, D. T., Nowicky, A. V., & Wright, M. J. (2018). Cerebral effects of music during isometric exercise: An fMRI study. *International Journal of Psychophysiology*, 133, 131–139. <https://doi.org/10.1016/j.ijpsycho.2018.07.475>
- Bond, P., Smit, D. L., & de Ronde, W. (2022). Anabolic-androgenic steroids: How do they work and what are the risks? *Frontiers in Endocrinology*, 13, 1059473. <https://doi.org/10.3389/fendo.2022.1059473>
- Bouaziz, W., Malgoyre, A., Schmitt, E., Lang, P.-O., Vogel, T., & Kanagaratnam, L. (2020). Effect of high-intensity interval training and continuous endurance training on peak oxygen uptake among seniors aged 65 or older: A meta-analysis of randomized controlled trials. *International Journal of Clinical Practice*, 74(6), e13490. <https://doi.org/10.1111/ijcp.13490>
- Boyle, M. (2016). *New Functional Training for Sports-2nd Edition*. Human Kinetics.
- Brandt, T., Heinz, E., Klaßen, Y., Limbara, S., Mörsdorf, M., Schinköthe, T., & Schmidt, A. (2024). The MedXFit-study - CrossFit as a workplace health intervention: A one-year, prospective, controlled, longitudinal, intervention study. *Frontiers in Public Health*, 12, 1304721. <https://doi.org/10.3389/fpubh.2024.1304721>
- Brandt, T., Schmidt, A., Schinköthe, T., Heinz, E., Klaßen, Y., Limbara, S., & Mörsdorf, M. (2022). MedXFit-Effects of 6 months CrossFit® in sedentary and inactive employees: A prospective, controlled, longitudinal, intervention study. *Health Science Reports*, 5(5), e749. <https://doi.org/10.1002/hsr2.749>
- Brisebois, M. F., Rigby, B. R., & Nichols, D. L. (2018). Physiological and Fitness Adaptations after Eight Weeks of High-Intensity Functional Training in Physically Inactive Adults. *Sports*, 6(4), 146. <https://doi.org/10.3390/sports6040146>
- Browne, J., Carter, R., Robinson, A., Waldrup, B., Zhang, G., Carrillo, E., Dinh, M., Arnold, M., Hu, J., Neufeld, E., & Dolezal, B. (2020). Not All HIFT Classes Are Created Equal: Evaluating Energy Expenditure and Relative Intensity of a High-Intensity Functional Training Regimen. *International journal of exercise science*, 13, 1206–1216.
- Buckley, S., Knapp, K., Lackie, A., Lewry, C., Horvey, K., Benko, C., Trinh, J., & Butcher, S. (2015). Multimodal high-intensity interval training increases muscle function and metabolic performance in females. *Applied Physiology, Nutrition, and Metabolism = Physiologie Appliquee, Nutrition Et Metabolisme*, 40(11), 1157–1162. <https://doi.org/10.1139/apnm-2015-0238>
- Buch, A., Kis, O., Carmeli, E., Keinan-Boker, L., Berner, Y., Barer, Y., Shefer, G., Marcus, Y., & Stern, N. (2017). Circuit resistance training is an effective means to enhance muscle strength in older and middle aged adults: A systematic review and

- meta-analysis. *Ageing Research Reviews*, 37, 16–27. <https://doi.org/10.1016/j.arr.2017.04.003>
- Bull, F. C., Al-Ansari, S. S., Biddle, S., Borodulin, K., Buman, M. P., Cardon, G., Carty, C., Chaput, J.-P., Chastin, S., Chou, R., Dempsey, P. C., DiPietro, L., Ekelund, U., Firth, J., Friedenreich, C. M., Garcia, L., Gichu, M., Jago, R., Katzmarzyk, P. T., ... Willumsen, J. F. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports Medicine*, 54(24), 1451–1462. <https://doi.org/10.1136/bjsports-2020-102955>
- Camacho-Cardenosa, A., Timón, R., Camacho-Cardenosa, M., Guerrero-Flores, S., Olcina, G., Marcos-Serrano, M., Camacho-Cardenosa, A., Timón, R., Camacho-Cardenosa, M., Guerrero-Flores, S., Olcina, G., & Marcos-Serrano, M. (2020). Six-months CrossFit training improves metabolic efficiency in young trained men. *Cultura, Ciencia y Deporte*, 15(45), Article 45. <https://doi.org/10.12800/CCD.V15I45.1519>
- Campbell, J. D. (2012). „*The army isn't all work*”: *Physical culture in the evolution of the British army, 1860-1920*. Ashgate Publishing Ltd.
- Carbone, S., Candela, V., & Gumina, S. (2020). High Rate of Return to CrossFit Training After Arthroscopic Management of Rotator Cuff Tear. *Orthopaedic Journal of Sports Medicine*, 8(4), 2325967120911039. <https://doi.org/10.1177/2325967120911039>
- Cataldi, S., Francavilla, V. C., Bonavolontà, V., De Florio, O., Carvutto, R., De Candia, M., Latino, F., & Fischetti, F. (2021). Proposal for a Fitness Program in the School Setting during the COVID 19 Pandemic: Effects of an 8-Week CrossFit Program on Psychophysical Well-Being in Healthy Adolescents. *International Journal of Environmental Research and Public Health*, 18(6), 3141. <https://doi.org/10.3390/ijerph18063141>
- Cavedon, V., Milanese, C., Marchi, A., & Zancanaro, C. (2020). Different amount of training affects body composition and performance in High-Intensity Functional Training participants. *PloS One*, 15(8), e0237887. <https://doi.org/10.1371/journal.pone.0237887>
- Cebrián-Ponce, Á., Serafini, S., Petri, C., Carrasco-Marginet, M., Izzicupo, P., & Mascherini, G. (2024). Somatotype and bioelectrical impedance vector analysis of Italian CrossFit® practitioners. *Heliyon*, 10(8), e29139. <https://doi.org/10.1016/j.heliyon.2024.e29139>
- Cejudo, A. (2022). Predicting the Clean Movement Technique in Crossfit® Athletes Using an Optimal Upper-Limb Range of Motion: A Prospective Cohort Study. *International Journal of Environmental Research and Public Health*, 19(19), 12985. <https://doi.org/10.3390/ijerph191912985>
- Clapp, J. F. (1990). The course of labor after endurance exercise during pregnancy. *American Journal of Obstetrics and Gynecology*, 163(6 Pt 1), 1799–1805. [https://doi.org/10.1016/0002-9378\(90\)90753-t](https://doi.org/10.1016/0002-9378(90)90753-t)
- Claudino, J. G., Gabbett, T. J., Bourgeois, F., Souza, H. de S., Miranda, R. C., Mezêncio, B., Soncin, R., Cardoso Filho, C. A., Bottaro, M., Hernandez, A. J., Amadio, A. C., & Serrão, J. C. (2018). CrossFit Overview: Systematic Review and Meta-analysis. *Sports Medicine - Open*, 4(1), 11. <https://doi.org/10.1186/s40798-018-0124-5>
- Collomp, K., Ericsson, M., Bernier, N., & Buisson, C. (2022). Prevalence of Prohibited Substance Use and Methods by Female Athletes: Evidence of Gender-Related

- Differences. *Frontiers in Sports and Active Living*, 4, 839976. <https://doi.org/10.3389/fspor.2022.839976>
- Cosgrove, S. J., Crawford, D. A., & Heinrich, K. M. (2019). Multiple Fitness Improvements Found after 6-Months of High Intensity Functional Training. *Sports*, 7(9). <https://doi.org/10.3390/sports7090203>
- Costa, F., Feye, A. S. P., & Magallanes, C. (2021). Effects of traditional strength training vs CrossFit on different expressions of strength. *Retos*, 42, 182–188. <https://doi.org/10.47197/retos.v42i0.86132>
- Crawford, D. A., Drake, N. B., Carper, M. J., DeBlauw, J., & Heinrich, K. M. (2018a). Are Changes in Physical Work Capacity Induced by High-Intensity Functional Training Related to Changes in Associated Physiologic Measures? *Sports*, 6(2), 26. <https://doi.org/10.3390/sports6020026>
- Crawford, D. A., Drake, N. B., Carper, M. J., DeBlauw, J., & Heinrich, K. M. (2018b). Validity, Reliability, and Application of the Session-RPE Method for Quantifying Training Loads during High Intensity Functional Training. *Sports (Basel, Switzerland)*, 6(3). <https://doi.org/10.3390/sports6030084>
- Crockett, M., & Butryn, T. (2017). Chasing Rx: A Spatial Ethnography of the CrossFit Gym. *Sociology of Sport Journal*, 35, 1–34. <https://doi.org/10.1123/ssj.2017-0115>
- da Costa, T. S., Louzada, C. T. N., Miyashita, G. K., da Silva, P. H. J., Sungaila, H. Y. F., Lara, P. H. S., Pochini, A. de C., Ejnisman, B., Cohen, M., & Arliani, G. G. (2019). CrossFit®: Injury prevalence and main risk factors. *Clinics*, 74, e1402. <https://doi.org/10.6061/clinics/2019/e1402>
- Dalton, J. T., Barnette, K. G., Bohl, C. E., Hancock, M. L., Rodriguez, D., Dodson, S. T., Morton, R. A., & Steiner, M. S. (2011). The selective androgen receptor modulator GTx-024 (enobosarm) improves lean body mass and physical function in healthy elderly men and postmenopausal women: Results of a double-blind, placebo-controlled phase II trial. *Journal of Cachexia, Sarcopenia and Muscle*, 2(3), 153–161. <https://doi.org/10.1007/s13539-011-0034-6>
- DeBlauw, J. A., Drake, N. B., Kurtz, B. K., Crawford, D. A., Carper, M. J., Wakeman, A., & Heinrich, K. M. (2021). High-Intensity Functional Training Guided by Individualized Heart Rate Variability Results in Similar Health and Fitness Improvements as Predetermined Training with Less Effort. *Journal of Functional Morphology and Kinesiology*, 6(4), 102. <https://doi.org/10.3390/jfmk6040102>
- Dehghanzadeh Suraki, R., Mohsenzade, M., Tibana, R., & Ahmadizad, S. (2021). Effects of CrossFit training on lipid profiles, body composition and physical fitness in overweight men. *Sport Sciences for Health*, 17. <https://doi.org/10.1007/s11332-020-00704-9>
- de-Oliveira, L. A., Heredia-Elvar, J. R., Maté-Muñoz, J. L., García-Manso, J. M., Aragão-Santos, J. C., & Da Silva-Grigoletto, M. E. (2021). Analysis of Pacing Strategies in AMRAP, EMOM, and FOR TIME Training Models during „Cross” Modalities. *Sports (Basel, Switzerland)*, 9(11), 144. <https://doi.org/10.3390/sports9110144>
- de Oliveira, S. N., Zapello, G. M. B., Knihs, D. A., Fischer, G., & Moro, A. R. P. (2023). Muscle Architecture and Maximal Strength between Male Practitioners of Functional Fitness Training and Strength Training. *International Journal of Exercise Science*, 16(7), 1142–1153. <https://doi.org/10.70252/QKEB4935>

- Hulst, G., Hodžić, D., Leuenberger, R., Arnet, J., Westerhuis, E., Roth, R., Schmidt-Trucksäss, A., Knaier, R., & Wagner, J. (2024). Physiological Profiles of Male and Female CrossFit Athletes. *International Journal of Sports Physiology and Performance*, 19(8), 780–791. <https://doi.org/10.1123/ijsp.2023-0386>
- Di Biase, N., Balducci, S., Lencioni, C., Bertolotto, A., Tumminia, A., Dodesini, A. R., Pintauro, B., Marcone, T., Vitacolonna, E., & Napoli, A. (2019). Review of general suggestions on physical activity to prevent and treat gestational and pre-existing diabetes during pregnancy and in postpartum. *Nutrition, Metabolism, and Cardiovascular Diseases: NMCD*, 29(2), 115–126. <https://doi.org/10.1016/j.numecd.2018.10.013>
- Domínguez, R. H., & Gajda, R. S. (1982). *Total Body Training*. Scribner.
- Dominski, F. H., Serafim, T. T., Siqueira, T. C., & Andrade, A. (2021). Psychological variables of CrossFit participants: A systematic review. *Sport Sciences for Health*, 17(1), 21–41. <https://doi.org/10.1007/s11332-020-00685-9>
- Dominski, F., Tibana, R., & Andrade, A. (2022). „Functional Fitness Training“, CrossFit, HlMT, or HlFT: What Is the Preferable Terminology? *Frontiers in Sports and Active Living*, 4. (WOS:000811818700001). <https://doi.org/10.3389/fspor.2022.882195>
- Drake, N., Smeed, J., Carper, M., & Crawford, D. (2017). Effects of Short-Term CrossFit Training: A Magnitude-Based Approach. *Journal of Exercise Physiology Online*, 20, 111–133.
- Dransmann, M., Koddebusch, M., Gröben, B., & Wicker, P. (2021). Functional High-Intensity Interval Training Lowers Body Mass and Improves Coordination, Strength, Muscular Endurance, and Aerobic Endurance of Inmates in a German Prison. *Frontiers in Physiology*, 12, 733774. <https://doi.org/10.3389/fphys.2021.733774>
- Durkalec-Michalski, K., Zawieja, E. E., Zawieja, B. E., & Podgórski, T. (2021). Evaluation of the repeatability and reliability of the cross-training specific Fight Gone Bad workout and its relation to aerobic fitness. *Scientific Reports*, 11(1), 7263. <https://doi.org/10.1038/s41598-021-86660-x>
- Eather, N., Morgan, P. J., & Lubans, D. R. (2016). Improving health-related fitness in adolescents: The CrossFit Teens™ randomised controlled trial. *Journal of Sports Sciences*, 34(3), 209–223. <https://doi.org/10.1080/02640414.2015.1045925>
- Evans, J. W. (2019). Periodized Resistance Training for Enhancing Skeletal Muscle Hypertrophy and Strength: A Mini-Review. *Frontiers in Physiology*, 10, 13. <https://doi.org/10.3389/fphys.2019.00013>
- Everhart, J., Poland, S., Vajapey, S., Kirven, J., France, T., & Vasileff, W. (2020). CrossFit-related hip and groin injuries: A case series. *Journal of Hip Preservation Surgery*, 7(1), 109–115. <https://doi.org/10.1093/jhps/hnz072>
- Faelli, E., Bisio, A., Codella, R., Ferrando, V., Perasso, L., Panasci, M., Saverino, D., & Ruggeri, P. (2020). Acute and Chronic Catabolic Responses to CrossFit® and Resistance Training in Young Males. *International Journal of Environmental Research and Public Health*, 17(19), Article 19. <https://doi.org/10.3390/ijerph17197172>
- Faigenbaum, A. D., Lloyd, R. S., MacDonald, J., & Myer, G. D. (2016). Citius, Altius, Fortius: Beneficial effects of resistance training for young athletes: Narrative review. *British Journal of Sports Medicine*, 50(1), 3–7. <https://doi.org/10.1136/bjsports-2015-094621>

- Falk Neto, J. H., & Kennedy, M. D. (2019). The Multimodal Nature of High-Intensity Functional Training: Potential Applications to Improve Sport Performance. *Sports (Basel, Switzerland)*, 7(2), 33. <https://doi.org/10.3390/sports7020033>
- Fan, W., Waizenegger, W., Lin, C. S., Sorrentino, V., He, M.-X., Wall, C. E., Li, H., Liddle, C., Yu, R. T., Atkins, A. R., Auwerx, J., Downes, M., & Evans, R. M. (2017). PPAR δ Promotes Running Endurance by Preserving Glucose. *Cell Metabolism*, 25(5), 1186-1193.e4. <https://doi.org/10.1016/j.cmet.2017.04.006>
- Feito, Y., Burrows, E. K., & Tabb, L. P. (2018). A 4-Year Analysis of the Incidence of Injuries Among CrossFit-Trained Participants. *Orthopaedic Journal of Sports Medicine*, 6(10), 2325967118803100. <https://doi.org/10.1177/2325967118803100>
- Feito, Y., Heinrich, K. M., Butcher, S. J., & Poston, W. S. C. (2018). High-Intensity Functional Training (HIFT): Definition and Research Implications for Improved Fitness. *Sports*, 6(3), 76. <https://doi.org/10.3390/sports6030076>
- Feito, Y., Hoffstetter, W., Serafini, P., & Mangine, G. (2018a). Changes in body composition, bone metabolism, strength, and skill-specific performance resulting from 16-weeks of HIFT. *PloS One*, 13(6), e0198324. <https://doi.org/10.1371/journal.pone.0198324>
- Feito, Y., Hoffstetter, W., Serafini, P., & Mangine, G. (2018b). Changes in body composition, bone metabolism, strength, and skill-specific performance resulting from 16-weeks of HIFT. *PloS One*, 13(6), e0198324. <https://doi.org/10.1371/journal.pone.0198324>
- Fernández-Lázaro, D., Gallego-Gallego, D., Corchete, L. A., Fernández Zoppino, D., González-Bernal, J. J., García Gómez, B., & Mielgo-Ayuso, J. (2021). Inspiratory Muscle Training Program Using the PowerBreath®: Does It Have Ergogenic Potential for Respiratory and/or Athletic Performance? A Systematic Review with Meta-Analysis. *International Journal of Environmental Research and Public Health*, 18(13), Article 13. <https://doi.org/10.3390/ijerph18136703>
- Fiat, F., Merghes, P. E., Scurtu, A. D., Almajan Guta, B., Dehelean, C. A., Varan, N., & Bernad, E. (2022). The Main Changes in Pregnancy—Therapeutic Approach to Musculoskeletal Pain. *Medicina*, 58(8), 1115. <https://doi.org/10.3390/medicina58081115>
- Garst, B. A., Bowers, E. P., & Stephens, L. E. (2020). A randomized study of CrossFit Kids for fostering fitness and academic outcomes in middle school students. *Evaluation and Program Planning*, 83, 101856. <https://doi.org/10.1016/j.evalproplan.2020.101856>
- Gettman, L. R., & Pollock, M. L. (1981). Circuit Weight Training: A Critical Review of Its Physiological Benefits. *The Physician and Sportsmedicine*, 9(1), 44–60. <https://doi.org/10.1080/00913847.1981.11710988>
- Ghaderi, M., Chtourou, H., Nikbakht, H., Jafari, M., & Chamari, K. (2015). Listening to motivational music: Lactate and cortisol response to a single circuit resistance exercise for young male athletes. *South African Journal for Research in Sport, Physical Education and Recreation*, 37(2), 33–45.
- Glassman, G. (2002). What is fitness. *CrossFit Journal*, (10), 1–10.
- Glassman, G. (2004). "The Girls" for Grandmas! *CrossFit Journal*, (26), 1–4.
- Gomes, J. H., Mendes, R. R., Franca, C. S., Silva-Grigoletto, M. E. D., Silva, D. R. P. da, Antonioli, A. R., Silva, A. M. de O. e, & Quintans-Júnior, L. J. (2020). Acute

- leucocyte, muscle damage, and stress marker responses to high-intensity functional training. *PLOS ONE*, 15(12), e0243276. <https://doi.org/10.1371/journal.pone.0243276>
- Gordon, J. (2015). Scaling CrossFit workouts. *CrossFit Journal*, (10), 1–7.
- Gotshalk, L. A., Berger, R. A., & Kraemer, W. J. (2004). Cardiovascular responses to a high-volume continuous circuit resistance training protocol. *Journal of Strength and Conditioning Research*, 18(4), 760–764. <https://doi.org/10.1519/14954.1>
- Gould, S., Cawyer, C., Dell'Italia, L., Harper, L., McGwin, G., & Bamman, M. (2021). Resistance Training Does Not Decrease Placental Blood Flow During Valsalva Maneuver: A Novel Use of 3D Doppler Power Flow Ultrasonography. *Sports Health*, 13(5), 476–481. <https://doi.org/10.1177/19417381211000717>
- Hamdouni, H., Kliszczewicz, B., Zouhal, H., & Ben Abderrahman, A. (2024). Physical Fitness Responses after Sixteen Weeks of Three Fitness Program Trainings in Untrained Subjects. *International Journal of Exercise Science*, 17(4), 54–72.
- Hedblom, C. (2009). *Body Is Made to Move: Gym & Fitness Culture in Sweden* (0 Edition). Stockholm Universitet.
- Heinrich, K. M., Beattie, C. M., Crawford, D. A., Stoepker, P., & George, J. (2023). Non-Traditional Physical Education Classes Improve High School Students' Movement Competency and Fitness: A Mixed-Methods Program Evaluation Study. *International Journal of Environmental Research and Public Health*, 20(10), 5914. <https://doi.org/10.3390/ijerph20105914>
- Heinrich, K. M., Becker, C., Carlisle, T., Gilmore, K., Hauser, J., Frye, J., & Harms, C. A. (2015). High-intensity functional training improves functional movement and body composition among cancer survivors: A pilot study. *European Journal of Cancer Care*, 24(6), 812–817. <https://doi.org/10.1111/ecc.12338>
- Heinrich, K. M., Patel, P. M., O'Neal, J. L., & Heinrich, B. S. (2014). High-intensity compared to moderate-intensity training for exercise initiation, enjoyment, adherence, and intentions: An intervention study. *BMC Public Health*, 14, 789. <https://doi.org/10.1186/1471-2458-14-789>
- Helén, J., Kyröläinen, H., Ojanen, T., Pihlainen, K., Santtila, M., Heikkinen, R., & Vaara, J. P. (2023). High-Intensity Functional Training Induces Superior Training Adaptations Compared With Traditional Military Physical Training. *Journal of Strength and Conditioning Research*, 37(12), 2477–2483. <https://doi.org/10.1519/JSC.0000000000004559>
- Hickson, R. C. (1980). Interference of strength development by simultaneously training for strength and endurance. *European Journal of Applied Physiology and Occupational Physiology*, 45(2–3), 255–263. <https://doi.org/10.1007/BF00421333>
- Hopkins, B. S., Cloney, M. B., Kesavabhotla, K., Yamaguchi, J., Smith, Z. A., Koski, T. R., Hsu, W. K., & Dahdaleh, N. S. (2019). Impact of CrossFit-Related Spinal Injuries. *Clinical Journal of Sport Medicine: Official Journal of the Canadian Academy of Sport Medicine*, 29(6), 482–485. <https://doi.org/10.1097/JSM.0000000000000553>
- Cheng, T. T. J., Mansor, A., Lim, Y. Z., & Hossain Parash, M. T. (2020). Injury Incidence, Patterns, and Risk Factors in Functional Training Athletes in an Asian Population. *Orthopaedic Journal of Sports Medicine*, 8(10), 2325967120957412. <https://doi.org/10.1177/2325967120957412>

- Inaba, M., Edberg, E., Montgomery, J., & Katie Gillis, M. (1973). Effectiveness of Functional Training, Active Exercise, and Resistive Exercise for Patients with Hemiplegia. *Physical Therapy*, 53(1), 28–36. <https://doi.org/10.1093/ptj/53.1.28>
- Kardel, K. R. (2005). Effects of intense training during and after pregnancy in top-level athletes. *Scandinavian Journal of Medicine & Science in Sports*, 15(2), 79–86. <https://doi.org/10.1111/j.1600-0838.2004.00426.x>
- Kartal, A., & Ergin, E. (2020). Investigation of the effect of 6-week CrossFit exercises on anaerobic endurance and anaerobic strength in male basketball players. *African Educational Research Journal*, 8(1), S62–S68.
- Klistorner, D. (2014). *Titanic in Photographs*. The History Press.
- Kluszczewicz, B., Markert, C. D., Bechke, E., Williamson, C., Clemons, K. N., Snarr, R. L., & McKenzie, M. J. (2021). Acute Effect of Popular High-Intensity Functional Training Exercise on Physiologic Markers of Growth. *Journal of Strength and Conditioning Research*, 35(6), 1677–1684. <https://doi.org/10.1519/JSC.0000000000002933>
- Kluszczewicz, B., Quindry, C. J., Blessing, L. D., Oliver, D. G., Esco, R. M., & Taylor, J. K. (2015). Acute Exercise and Oxidative Stress: CrossFit(™) vs. Treadmill Bout. *Journal of Human Kinetics*, 47, 81–90. <https://doi.org/10.1515/hukin-2015-0064>
- Kluszczewicz, B., Snarr, R. L., & Esco, M. R. (2014). Metabolic and Cardiovascular Response to the CrossFit Workout 'Cindy'. *Journal of Sport and Human Performance*, 2(2), Article 2. <https://doi.org/10.12922/jshp.v2i2.38>
- Kraemer, W. J., & Ratamess, N. A. (2005). Hormonal Responses and Adaptations to Resistance Exercise and Training. *Sports Medicine*, 35(4), 339–361. <https://doi.org/10.2165/00007256-200535040-00004>
- Kristiansen, S., Gade, J., Wojtaszewski, J. F. P., Kiens, B., & Richter, E. A. (2000). Glucose uptake is increased in trained vs. Untrained muscle during heavy exercise. *Journal of Applied Physiology*, 89(3), 1151–1158. <https://doi.org/10.1152/jappl.2000.89.3.1151>
- Laursen, P., & Buchheit, M. (2019). *Science and Application of High-Intensity Interval Training: Solutions to the Programming Puzzle*. Human Kinetics.
- Le Meur, Y., Hausswirth, C., & Mujika, I. (2012). Tapering for competition: A review. *Science & Sports*, 27(2), 77–87. <https://doi.org/10.1016/j.scispo.2011.06.013>
- Lehnert, M., Botek, M., Sigmund, M., Smékal, D., & Šťastný, P. (2014). *Kondiční trénink*. Univerzita Palackého v Olomouci.
- Liguori, G. (2021). *ACSM's Guidelines for Exercise Testing and Prescription* (Eleventh, Spiral edition). LWW.
- Lima, P. M. A., Barros, Y. C., Barros, A. B. N., & Farias, L. M. (2024). Assessment of Anabolic Androgenic Steroids Use Among Professional CrossFit® Athletes: Motives, Perception, and Safety. *Substance Use & Misuse*, 59(10), 1488–1494. <https://doi.org/10.1080/10826084.2024.2359717>
- Loos, R. J. F., & Yeo, G. S. H. (2022). The genetics of obesity: From discovery to biology. *Nature Reviews. Genetics*, 23(2), 120–133. <https://doi.org/10.1038/s41576-021-00414-z>
- Mangine, G. T., Feito, Y., Tankersley, J. E., McDougale, J. M., & Kluszczewicz, B. M. (2021). Workout Pacing Predictors of Crossfit® Open Performance: A Pilot Study. *Journal of Human Kinetics*, 78, 89–100. <https://doi.org/10.2478/hukin-2021-0043>

- Mangine, G. T., Grundlingh, N., & Feito, Y. (2023a). Differential improvements between men and women in repeated CrossFit open workouts. *PloS One*, 18(11), e0283910. <https://doi.org/10.1371/journal.pone.0283910>
- Mangine, G. T., Grundlingh, N., & Feito, Y. (2023b). Normative Scores for CrossFit® Open Workouts: 2011-2022. *Sports (Basel, Switzerland)*, 11(2), 24. <https://doi.org/10.3390/sports11020024>
- Mangine, G. T., McDougale, J. M., & Feito, Y. (2022). Relationships Between Body Composition and Performance in the High-Intensity Functional Training Workout „Fran“ are Modulated by Competition Class and Percentile Rank. *Frontiers in Physiology*, 13, 893771. <https://doi.org/10.3389/fphys.2022.893771>
- Mangine, G. T., & Seay, T. R. (2022). Quantifying CrossFit®: Potential solutions for monitoring multimodal workloads and identifying training targets. *Frontiers in Sports and Active Living*, 4. <https://doi.org/10.3389/fspor.2022.949429>
- Mangine, G. T., Van Dusseldorp, T. A., Feito, Y., Holmes, A. J., Serafini, P. R., Box, A. G., & Gonzalez, A. M. (2018). Testosterone and Cortisol Responses to Five High-Intensity Functional Training Competition Workouts in Recreationally Active Adults. *Sports (Basel, Switzerland)*, 6(3), 62. <https://doi.org/10.3390/sports6030062>
- Mangine, G. T., Zeitz, E. K., Dexheimer, J. D., Hines, A., Lively, B., & Kliszczewicz, B. M. (2023). Pacing Strategies Differ by Sex and Rank in 2020 CrossFit® Open Tests. *Sports (Basel, Switzerland)*, 11(10), 199. <https://doi.org/10.3390/sports11100199>
- Mangine, G. T., Zeitz, E. K., Dexheimer, J. D., Hines, A., Lively, B., & Kliszczewicz, B. M. (2024). The influence of sex-division, experience, and pacing strategy on performance in the 2020 CrossFit® Open. *Frontiers in Sports and Active Living*, 6, 1344036. <https://doi.org/10.3389/fspor.2024.1344036>
- Martínková, I. (2013). *Instrumentality and values in sport*. Karolinum.
- McCrum, C. L., & Middleton, K. (2018). Maximizing Performance and Preventing Injury in Masters Athletes. In *Masterful Care of the Aging Athlete*. Springer.
- McDougale, J., Mangine, G., Townsend, J., Jajtner, A., & Feito, Y. (2023). Acute physiological outcomes of high-intensity functional training: A scoping review. *PEERJ*, 10. (WOS:000908372500008). <https://doi.org/10.7717/peerj.14493>
- McKean, K. A., Manson, N. A., & Stanish, W. D. (2006). Musculoskeletal injury in the masters runners. *Clinical Journal of Sport Medicine: Official Journal of the Canadian Academy of Sport Medicine*, 16(2), 149–154. <https://doi.org/10.1097/00042752-200603000-00011>
- McWeeny, D. K., Boule, N. G., Neto, J. H. F., & Kennedy, M. D. (2020). Effect of high intensity functional training and traditional resistance training on aerobic, anaerobic, and musculoskeletal fitness improvement. *Journal of Physical Education and Sport*, 20(4), 1791–1802. <https://doi.org/10.7752/jpes.2020.04243>
- Meier, N., Sietmann, D., & Schmidt, A. (2022). Comparison of Cardiovascular Parameters and Internal Training Load of Different 1-h Training Sessions in Non-elite CrossFit® Athletes. *Journal of Science in Sport and Exercise*, 5(6). <https://doi.org/10.1007/s42978-022-00169-x>
- Mercer, D., Convit, L., Condo, D., Carr, A. J., Hamilton, D. L., Slater, G., & Snipe, R. M. J. (2020). Protein Requirements of Pre-Menopausal Female Athletes: Systematic Literature Review. *Nutrients*, 12(11). <https://doi.org/10.3390/nu12113527>

- Ministerstvo školství, mládeže a tělovýchovy. (2002). *Evropská charta sportu*. <https://www.msmt.cz/file/38361>
- Moran, S., Booker, H., Staines, J., & Williams, S. (2017). Rates and risk factors of injury in CrossFit™: A prospective cohort study. *The Journal of Sports Medicine and Physical Fitness*, 57(9), 1147–1153. <https://doi.org/10.23736/S0022-4707.16.06827-4>
- Nieuwoudt, S., Fealy, C. E., Foucher, J. A., Scelsi, A. R., Malin, S. K., Pagadala, M., Rocco, M., Burguera, B., & Kirwan, J. P. (2017). Functional high-intensity training improves pancreatic β -cell function in adults with type 2 diabetes. *American Journal of Physiology. Endocrinology and Metabolism*, 313(3), E314–E320. <https://doi.org/10.1152/ajpendo.00407.2016>
- Noakes, T. D. (2011). Time to move beyond a brainless exercise physiology: The evidence for complex regulation of human exercise performance. *Applied Physiology, Nutrition, and Metabolism = Physiologie Appliquée, Nutrition Et Metabolisme*, 36(1), 23–35. <https://doi.org/10.1139/H10-082>
- Norton, K., Norton, L., & Sadgrove, D. (2010). Position statement on physical activity and exercise intensity terminology. *Journal of Science and Medicine in Sport*, 13(5), 496–502. <https://doi.org/10.1016/j.jsams.2009.09.008>
- O'Connor, P. J., Poudevigne, M. S., Cress, M. E., Motl, R. W., & Clapp, J. F. (2011). Safety and efficacy of supervised strength training adopted in pregnancy. *Journal of Physical Activity & Health*, 8(3), 309–320. <https://doi.org/10.1123/jpah.8.3.309>
- Okunogbe, A., Nugent, R., Spencer, G., Ralston, J., & Wilding, J. (2021). Economic impacts of overweight and obesity: Current and future estimates for eight countries. *BMJ Global Health*, 6(10), e006351. <https://doi.org/10.1136/bmjgh-2021-006351>
- Owe, K. M., Nystad, W., Stigum, H., Vangen, S., & Bø, K. (2016). Exercise during pregnancy and risk of cesarean delivery in nulliparous women: A large population-based cohort study. *American Journal of Obstetrics and Gynecology*, 215(6), 791.e1-791.e13. <https://doi.org/10.1016/j.ajog.2016.08.014>
- Peña-Vázquez, O., Enriquez-Del Castillo, L. A., González-Chávez, S. A., Güereca-Arvizuo, J., Candia Lujan, R., Carrasco Legleu, C. E., Cervantes Hernández, N., & Pacheco-Tena, C. (2023). Prevalence of Polymorphism and Post-Training Expression of ACTN3 (R/X) and ACE (I/D) Genes in CrossFit Athletes. *International Journal of Environmental Research and Public Health*, 20(5), 4404. <https://doi.org/10.3390/ijerph20054404>
- Perna, S., Bologna, C., Agosti, I. D., & Rondanelli, M. (2018). High Intensity Crossfit Training Compared to High Intensity Swimming: A Pre-Post Trial to Assess the Impact on Body Composition, Muscle Strength and Resting Energy Expenditure. *Asian Journal of Sports Medicine*, 9(1), Article 1. <https://doi.org/10.5812/asjms.13843>
- Pickett, A. C., Goldsmith, A., Damon, Z., & Walker, M. (2016). The Influence of Sense of Community on the Perceived Value of Physical Activity: A Cross-Context Analysis. *Leisure Sciences*, 38(3), 199–214. <https://doi.org/10.1080/01490400.2015.1090360>
- Piras, A., Persiani, M., Damiani, N., Perazzolo, M., & Raffi, M. (2015). Peripheral heart action (PHA) training as a valid substitute to high intensity interval training to improve resting cardiovascular changes and autonomic adaptation. *European Journal of Applied Physiology*, 115(4), 763–773. <https://doi.org/10.1007/s00421-014-3057-9>

- Pritchard, H. J., Keogh, J. W., & Winwood, P. W. (2020). Tapering practices of elite CrossFit athletes. *International Journal of Sports Science & Coaching*, 15(5–6), 753–761. <https://doi.org/10.1177/1747954120934924>
- Raymond, M. J., Bramley-Tzerefos, R. E., Jeffs, K. J., Winter, A., & Holland, A. E. (2013). Systematic review of high-intensity progressive resistance strength training of the lower limb compared with other intensities of strength training in older adults. *Archives of Physical Medicine and Rehabilitation*, 94(8), 1458–1472. <https://doi.org/10.1016/j.apmr.2013.02.022>
- Saad, R. K., Ghezzawi, M., Horanieh, R., Khamis, A. M., Saunders, K. H., Batsis, J. A., & Chakhtoura, M. (2022). Abdominal Visceral Adipose Tissue and All-Cause Mortality: A Systematic Review. *Frontiers in Endocrinology*, 13, 922931. <https://doi.org/10.3389/fendo.2022.922931>
- Sadowska-Krępa, E., Domaszewski, P., Pokora, I., Żebrowska, A., Gdańska, A., & Podgórski, T. (2019). Effects of medium-term green tea extract supplementation combined with CrossFit workout on blood antioxidant status and serum brain-derived neurotrophic factor in young men: A pilot study. *Journal of the International Society of Sports Nutrition*, 16(1), 13. <https://doi.org/10.1186/s12970-019-0280-0>
- Saeidi, A., Nouri-Habashi, A., Razi, O., Ataeinosrat, A., Rahmani, H., Mollabashi, S., Bagherzadeh-Rahmani, B., Aghdam, S., Khalajzadeh, L., Al Kiyumi, M., Hackney, A., Laher, I., Heinrich, K., & Zouhal, H. (2023). Astaxanthin Supplemented with High-Intensity Functional Training Decreases Adipokines Levels and Cardiovascular Risk Factors in Men with Obesity. *NUTRIENTS*, 15(2), 286. (WOS:000916357500001). <https://doi.org/10.3390/nu15020286>
- Sallinen, J., Ojanen, T., Karavirta, L., Ahtiainen, J. P., & Häkkinen, K. (2008). Muscle mass and strength, body composition and dietary intake in master strength athletes vs untrained men of different ages. *The Journal of Sports Medicine and Physical Fitness*, 48(2), 190–196.
- Sauvé, B., Haugan, M., & Paulsen, G. (2024). Physical and Physiological Characteristics of Elite CrossFit Athletes. *Sports (Basel, Switzerland)*, 12(6), 162. <https://doi.org/10.3390/sports12060162>
- Scribbans, T. D., Vecsey, S., Hankinson, P. B., Foster, W. S., & Gurd, B. J. (2016). The Effect of Training Intensity on VO2max in Young Healthy Adults: A Meta-Regression and Meta-Analysis. *International Journal of Exercise Science*, 9(2), 230–247. <https://doi.org/10.70252/HHBR9374>
- Seo, Y.-G., Noh, H.-M., & Kim, S. Y. (2019). Weight loss effects of circuit training interventions: A systematic review and meta-analysis. *Obesity Reviews*, 20(11), 1642–1650. <https://doi.org/10.1111/obr.12911>
- Shaw, S. B., Dullabh, M., Forbes, G., Brandkamp, J.-L., & Shaw, I. (2015). Analysis of physiological determinants during a single bout of Crossfit. *International Journal of Performance Analysis in Sport*, 15(3), 809–815. <https://doi.org/10.1080/24748668.2015.11868832>
- Schlegel, P. (2020a). CrossFit® Training Strategies from the Perspective of Concurrent Training: A Systematic Review. *Journal of Sports Science & Medicine*, 19(4), 670–680.
- Schlegel, P. (2020b). Nový trend v používání zakázaných látek v CrossFitu®. *Tělesná kultura*, 43(1), 41–50. <https://doi.org/10.5507/tk.2020.010>