

Kirsten Legerlotz/Elisabeth Maria Kirschbaum

MENSTRUATIONSZYKLUS UND VERLETZUNGSRISIKO

Literatur

Bey, M. E., Marzilger, R., Hinkson, L., Arampatzis, A. & Legerlotz, K. (2019). Patellar tendon stiffness is not reduced during pregnancy. *Front. Physiol.*, 10, 334. doi:10.3389/fphys.2019.00334

Chidi-Ogbolu, N. & Baar, K. (2018). Effect of estrogen on musculoskeletal performance and injury risk. *Front. Physiol.*, 9, 1834. doi:10.3389/fphys.2018.01834

Cook, C. J., & Crewther, B. T. (2019). Within- and between-person variation in morning testosterone is associated with economic risk-related decisions in athletic women across the menstrual cycle. *Horm. Behav.*, 112, 77-80. doi:10.1016/j.yhbeh.2019.04.007

Cook, C. J., Kilduff, L. P. & Crewther, B. T. (2018). Basal and stress-induced salivary testosterone variation across the menstrual cycle and linkage to motivation and muscle power. *Scand. J. Med. Sci. Sports*, 28 (4), 1345-1353. doi:10.1111/sms.13041

Emami, F., Kordi Yoosefinejad, A. & Motealleh, A. (2019). Comparison of static and dynamic balance during early follicular and ovulation phases in healthy women, using simple, clinical tests: a cross sectional study. *Gynecol. Endocrinol.*, 35 (3), 257-260. doi:10.1080/09513590.2018.1519788

Friden, C., Hirschberg, A. L., Saartok, T., Backstrom, T., Leanderson, J. & Renstrom, P. (2003). The influence of premenstrual symptoms on postural balance and kinesthesia during the menstrual cycle. *Gynecol. Endocrinol.*, 17 (6), 433-439. doi:10.1080/09513590312331290358

Friden, C., Ramsey, D. K., Backstrom, T., Benoit, D. L., Saartok, T. & Linden Hirschberg, A. (2005). Altered postural control during the luteal phase in women with premenstrual symptoms. *Neuroendocrinology*, 81 (3), 150-157. doi:10.1159/000086592

Hansen, M., Couppe, C., Hansen, C. S., Skovgaard, D., Kovanen, V., Larsen, J. O. & Kjaer, M. (2013). Impact of oral contraceptive use and menstrual phases on patellar tendon morphology, biochemical composition, and biomechanical properties in female athletes. *J. Appl. Physiol.* (1985), 114 (8), 998-1008. doi:10.1152/jappphysiol.01255.2012

Heitz, N. A., Eisenman, P. A., Beck, C. L. & Walker, J. A. (1999). Hormonal changes throughout the menstrual cycle and increased anterior cruciate ligament laxity in females. *J. Athl. Train.*, 34 (2), 144-149.

Herzberg, S. D., Motu'apuaka, M. L., Lambert, W., Fu, R., Brady, J., & Guise, J. M. (2017). The effect of menstrual cycle and contraceptives on ACL injuries and laxity: A systematic review and meta-analysis. *Orthop. J. Sports Med.*, 5 (7), 2325967117718781. doi:10.1177/2325967117718781

Hewett, T. E., Zazulak, B. T. & Myer, G. D. (2007). Effects of the menstrual cycle on anterior cruciate ligament injury risk: a systematic review. *Am. J. Sports Med.*, 35 (4), 659-668. doi:10.1177/0363546506295699

Hornung, J., Lewis, C. A. & Derntl, B. (2020). Sex hormones and human brain function. *Handb. Clin. Neurol.*, 175, 195-207. doi:10.1016/B978-0-444-64123-6.00014-X

Lee, B. J., Cho, K. H. & Lee, W. H. (2017). The effects of the menstrual cycle on the static balance in healthy young women. *J. Phys. Ther. Sci.*, 29 (11), 1964-1966. doi:10.1589/jpts.29.1964

Lefevre, N., Bohu, Y., Klouche, S., Lecocq, J., & Herman, S. (2013). Anterior cruciate ligament tear during the menstrual cycle in female recreational skiers. *Orthop. Traumatol. Surg. Res.*, 99 (5), 571-575. doi:10.1016/j.otsr.2013.02.005

Legerlotz, K., Bey, M. E., Gotz, S. & Bohlke, N. (2018). Constant performance in balance and proprioception tests across the menstrual cycle - a pilot study in well trained female ice hockey players on hormonal contraception. *Health Sci. Rep.*, 1 (1), e18. doi:10.1002/hsr.2.18

Lovalekar, M., Keenan, K. A., Beals, K., Nindl, B. C., Pihoker, A. A., Coleman, L. C. & Allison, K. F. (2020). Incidence and pattern of musculoskeletal injuries among women and men during Marine Corps training in sex-integrated units. *J. Sci. Med. Sport*, 23 (10), 932-936. doi:10.1016/j.jsams.2020.03.016

Martin, D., Timmins, K., Cowie, C., Alty, J., Mehta, R., Tang, A. & Varley, I. (2021). Injury incidence across the menstrual cycle in international footballers. *Front. Sports Act. Living*, 3, 616999. doi:10.3389/fspor.2021.616999

Nakase, J., Kitaoka, K., Shima, Y., Oshima, T., Sakurai, G. & Tsuchiya, H. (2020). Risk factors for noncontact anterior cruciate ligament injury in female high school basketball and handball players: A prospective 3-year cohort study. *Asia Pac. J. Sports Med. Arthrosc. Rehabil. Technol.*, 22, 34-38. doi:10.1016/j.asmart.2020.06.002

Peragine, D., Simeon-Spezzaferro, C., Brown, A., Gervais, N. J., Hampson, E. & Einstein, G. (2020). Sex difference or hormonal difference in mental rotation? The influence of ovarian milieu. *Psychoneuroendocrinology*, 115, 104488. doi:10.1016/j.psyneuen.2019.104488

Pirke, K. M., Schweiger, U., Broocks, A., Tuschl, R. J. & Laessle, R. G. (1990). Luteinizing hormone and follicle stimulating hormone secretion patterns in female athletes with and without menstrual disturbances. *Clin. Endocrinol. (Oxf)*, 33 (3), 345-353. doi:10.1111/j.1365-2265.1990.tb00499.x

Schauberger, C. W., Rooney, B. L., Goldsmith, L., Shenton, D., Silva, P. D. & Schaper, A. (1996). Peripheral joint laxity increases in pregnancy but does not correlate with serum relaxin levels. *Am. J. Obstet. Gynecol.*, 174 (2), 667-671. doi:10.1016/s0002-9378(96)70447-7

Shirazi, T. N., Levenberg, K., Cunningham, H., Self, H., Dawood, K., Cárdenas, R. et al. (2021). Relationships between ovarian hormone concentrations and mental rotations performance in naturally-cycling women. *Horm. Behav.*, 127, 104886. doi:10.1016/j.yhbeh.2020.104886

Somerson, J. S., Isby, I. J., Hagen, M. S., Kweon, C. Y. & Gee, A. O. (2019). The menstrual cycle may affect anterior knee laxity and the rate of anterior cruciate ligament rupture: A systematic review and meta-analysis. *JBJS Rev.*, 7 (9), e2. doi:10.2106/JBJS.RVW.18.00198

Walden, M., Hagglund, M., Werner, J. & Ekstrand, J. (2011). The epidemiology of anterior cruciate ligament injury in football (soccer): a review of the literature from a gender-related perspective. *Knee Surg. Sports Traumatol. Arthrosc.*, 19 (1), 3-10. doi:10.1007/s00167-010-1172-7

Wojtys, E. M., Huston, L. J., Boynton, M. D., Spindler, K. P. & Lindenfeld, T. N. (2002). The effect of the menstrual cycle on anterior cruciate ligament injuries in women as determined by hormone levels. *Am. J. Sports Med.*, 30 (2), 182-188. doi:10.1177/03635465020300020601

Zazulak, B. T., Paterno, M., Myer, G. D., Romani, W. A. & Hewett, T. E. (2006). The effects of the menstrual cycle on anterior knee laxity: a systematic review. *Sports Med.*, 36 (10), 847-862. doi:10.2165/00007256-200636100-00004

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