BİYOLOJİK RİTİM VE ATLETİK PERFORMANS

YAZAR
Öğr. Gör. Sibel TETİK DÜNDAR

EDİTÖR
Öğr. Gör. Kerim DÜNDAR

ISBN
978-625-7275-94-1

Kitap Adı
Biyolojik Ritim ve Atletik Performans

Editör
Kerim DÜNDAR

Yazar
Sibel TETİK DÜNDAR

Yayın Koordinatörü
Yasin Dilmen

Sayfa ve Kapak Tasarımı
Akademisyen Dizgi Ünitesi

Yayıncı Sertifika No
47518

Baskı ve Cilt
Vadi Matbaacılık

Bisac Code
SPO000000

GENEL DAĞITIM
Akademisyen Kitabevi A.Ş.

Halk Sokak 5 / A
Yenişehir / Ankara
Tel: 0312 431 16 33
siparis@akademisyen.com

www.akademisyen.com

Güneş ışığından en çok faydalananlar, ışığın her tonuna sevgiyle bakanlardır!

Hayatımdaki ışığın en farklı haline (UD.) sevgilerle…

ÖN SÖZ

Hayatın içinde kendi kendine oluşturulan her denge, doğanın ve insanın kimliğini belirler nitelikte. Bu kitabın içinde yer alan küçük zenginlikler; hayatın bize bizden önce hazırladığı denge ve organizmanın ona teşekkür biçimi ile şekillendirilmiştir.

Bu kitapta, profesyonel/amatör spor yaşamına sahip olan ya da olmayan her insanın; zamanın, ışığın ve bunlara uygun hizmet eden organizmanın derinlerine hakim olabilmesi, seçilen yaşam tarzına göre yaşanan fizyolojik şekillenmeler, "o her şeyi halleder" diyebileceğimiz bir biyolojik sistem bilgisi siz okurları bekliyor.

Biyoritim, hayatın nabzını sadece fiziksel-sosyal yaşamda tutmayı değil, fizyolojik olarak da en derinlerde kendini tümüyle fark edebilme imkanı sunmaktadır. Aynı zamanda, hayatın ritmini, her saniyesiyle doğru yakalamak ve bedenin tüm güzelliklerinden faydalanabilmek için zaman-yaşam ilişkisini optimum düzeyde açıklamaktadır.

Kitabın kapak tasarımında yaratıcı seçimlerini özenle kullanan, FİKİRLAND Reklam Ajans' ı sahibi ve yöneticisi, karikatürist kimliği ile yurt içi ve yurt dışında 30' a yakın ödül sahibi sayın Murteza ALBAYRAK' a,

Kitabın editörlüğünü üstlenerek redaksiyon, genel düzenleme, akıcılık ve tutarlılık konularındaki yeterliliğini sabırla takip eden, dostluğun ve abi kavramının en kıymetli karşılığı olan Kerim DÜNDAR' a,

Varlıklarına her zaman şükür duyduğum güzel ailem (Ahmet-Ünzile-Pembe-Ali-Alpay TETİK)

Kitabı yazma gayretine girdiğim ilk günden basım sürecine kadar sabrıyla bu sürece eşlik eden kıymetli eşim Uğur DÜNDAR' a,

Sonsuz minnet ve teşekkürlerimi sunuyorum.

Her işin aşk, saygı, güven, titizlik ve liyakat ile yapıldığı, hayata başladığımız her yeni günde "merhaba" kelimesinin daha içten ve daha coşkuyla telaffuz edildiği, hayatın her anında önce mutlu olmayı ve mutlu etmeyi öncelik saydığımız bir hayat dileğiyle…

Sibel TETİK DÜNDAR

İÇİNDEKİLER

KAYNAKÇA

1. Abraham, F. (2017). An Overview on Functional Causes of Infertility in Cows. JFIV Reprod Med Genet, 5(2):203.
2. Ackermann, K., Revell, V.L., Lao, O., Rombouts, E.J., Skene, D.J., Kayser, M. (2012). Diurnal Rhythms in Blood Cell Populations and The Effect of Acute Sleep Deprivation in Healthy Young Men. Sleep, 35(7):933-940.
3. Akerstedt, T. (1979). Altered Sleep/Wake Patterns and Circadian Rhythms. Laboratorya and Field Studies of Sympathoadrenomedullary and Related Variables. Acta Physiol Scand Suppl., 469:1-48.
4. Aldemir, H., Atkinson, G., Cable, T., Edwards, B., Waterhouse, J., Reilly, T. (2000). A Comparison of The Immediate Effects of Moderate Exercise in The Late Morning and Late Afternoon on Core Temperature and Cutaneous Thermoregulatory Mechanisms. Chronobiology International, 17(2):197-207.
5. Atkinson, G., Coldwells, A., Reilly, T., Waterhouse, J. (1993). A Comparison of Circadian Rhythms in Work Performance Between Physically Active and Inactive Subjects. Ergonomics, 36(1-3):273-81.
6. Atkinson, G., Drust, B., Reilly, T., Waterhouse, J. (2003). The Relevance of Melatonin to Sports Medicine and Science. Sports Medicine, 33(11):809-31.
7. Atkinson, G., Reilly, T. (1995). Effects of Age and Time of Day on Preferred Work Rates During Prolonged Exercise. Chronobiology International, 12(2):121-34.
8. Atkinson, G., Reilly, T. (1996). Circadian Variation in Sports Performance. Sports Medicine, 21(4):292-312.
9. Atkinson, G., Speirs, L. (1998). Diurnal Variation in Tennis Service. Percept Mot Skills, 86(3-2):1335-8.
10. Atkinson, G., Todd, C., Reilly, T., Waterhouse, J. (2005). Diurnal Variation in Cycling Performance: influence of warm-up. J Sports Sci., 23(3):321-9.
11. Bağırgan, T. (1982). Sürat Çalışmaları. Bağırgan Yayınevi, Ankara.
12. Bailey, S.L., Heitkemper, M.M. (2001). Circadian Rhythmicity of Cortisol and Body Temperature: morningness-eveningness effects. Chronobiology International, 18(2):249-261.
13. Bellastella, A., De Bellis, A., Bellastella, G., Sinisi, A.A. (2008). Cronoendocrinologia Ed Attività Sportiva. In: Lenzi, A., Lombardi, G., Martino, E., Trimarchi, F. (Eds) Endocrinologia Ed Attività Motorie. Elsevier-Masson, Milan, 208-215.
14. Bellastella, G., De Bellis, A., Maiorino, M.I., Paglionico, V.A., Esposito, K., Bellastella, A. (2019). Endocrine Rhythms and Sport: it is time to take time into account. Journal of Endocrinological Investigation, 42(10):1137-1147.

15. Benedict, F.G. (1915). The Factors Affecting Basal Metabolism. Proc Natl Acad Sci USA, 1(2):105-109.
16. Benloucif, S., Guico, M.J., Reid, K.J., Wolfe, L.F., L'hermite-Baleriaux, M., Zee, P.C. (2005). Stability of Melatonin and Temperature as Circadian Phase Markers and Their Relation to Sleep Times in Humans. Journal of Biological Rhythms, 20(2):178-188.
17. Berchtold, M.W., Brinkmeier, H, Müntener M. (2000). Calcium Ion in Skeletal Muscle: its crucial role for muscle function, plasticity, and disease. Physiol Rev., 80(3):1215-65.
18. Bessot, N., Nicolas, A., Moussay, S., Gauthier, A., Sesboüe, B., Davenne, D. (2006). The Effect of Pedal Rate and Time of Day on The Time to Exhaustion From High-Intensity Exercise. Chronobiology International, 23(5):1009-24.
19. Blake, M.J.F., Corcoran, D.W.J. (1972). Introversion-Extraversion and Circadian Rhythms. In: Colquhoun, W.P. (Ed.): Aspects of Human Efficiency - Diurnal Rhythm and Loss of Sleep. London: The English Universities Press Ltd., 261-272.
20. Bompa, T.O. (1997). Theory and Methodology of Training: the key to athletic performance. Kendall/Hunt Publishing Company, Lowa.
21. Booth, F.W., Thomason, D.B. (1991). Molecular and Cellular Adaptation of Muscle in Response to Exercise: perspectives of various models. Physiol Rev., 71(2):541-85.
22. Borer, K.T. (2003). Exercise Endocrinology. Human Kinetics, 1st Edition.
23. Boukelia, B., Fogarty, M.C., Davison, R.C., Florida-James, G.D. (2017). Diurnal Physiological and Immunological Responses To A 10-Km Run in Highly Trained Athletes in An Environmentally Controlled Condition of 6 Degrees C. Eur J Appl Physiol., 117(1):1-6.
24. British Amateur Athletic Board (1985). Coaching Theory Manual. London.
25. Brown, F.M., Neft, E.E., Lajambe, C.M. (2008). Collegiate Rowing Crew Performance Varies By Morningness-Eveningness. J Strength Cond Res., 22(6):1894-900.
26. Burgoon, P.W., Holland, G.J., Loy, S.F., Vincent, W. (1992). A Comparison of Morning and Evening "Types" During Maximum Exercise. J Appl Sport Sci Res., 6:115-9.
27. Camble, N.T., Reilli, T. (1987). Influence of Circadian Rhythms on Arm Exercies 2. Journal of Human Moment Studies, 13:13-27.
28. Challet, E. (2019). The Circadian Regulation of Food Intake. Nat Rev Endocrinol., 15(7):393-405.
29. Chtourou H, Souissi N. (2012). The Effect of Training at A Specific Time of Day: a review. J Strength Cond Res., 26(7):1984-2005.
30. Colquhoun, W.P. (1972). Aspects of Human Efficiency. London.
31. Colquhoun, W.P., Hockey, G.R.Y. (1972). Diurnal Variatıon İn Human Performance: a reviev. Aspects of Human Efficiency. London.

32. Conroy, R.T., O'Brien, M. (1974). Proceedings: diurnal variation in athletic performance. J Physiol., 236(1):51P.
33. Corbett, R.W., Middleton, B., Arendt, J. (2012). An Hour of Bright White Light in The Early Morning Improves Performance and Advances Sleep and Circadian Phase During the Antarctic Winter. Neuroscience Letters, 525(2):146-151.
34. Coyle E.F. (1995). Exercise and Sport Sciences Reviews, 23(1):25-64.
35. Crewther, B.T., Lowe, T., Weatherby, R.P., Gill, N., Keogh, J. (2009). Neuromuscular Performance of Elite Rugby Union Players and Relationships With Salivary Hormones. J Strength Cond Res., 23(7):2046-53.
36. Cummings, D.E., Purnell, J.Q., Frayo, R.S., Schmidova, K., Wisse, B.E., Weigle, D.S. (2001). A Preprandial Rise in Plasma Ghrelin Levels Suggests A Role in Meal Initiation in Humans. Diabetes, 50(8):1714-9.
37. Çalıyurt, O. (2001). Duygu Durum Bozuklukları ve Biyolojik Ritim. Duygu Durum Dizisi, (5):209-14.
38. Damiola, F., Le Minh, N., Preitner, N., Kornmann, B., Fleury-Olela, F., Schibler, U. (2000). Restricted Feeding Uncouples Circadian Oscillators in Peripheral Tissues from The Central Pacemaker in The Suprachiasmatic Nucleus. Genes Dev., 14(23):2950-61.
39. Davenne, D., Lagarde, D. (1995). Circadian Rhythm of Vigilance and Temperature During 24 Hours of Continuous Exercise. Med Sci Res., 23(11):767-770.
40. Decostre, V., Bianco, P., Lombardi, V., Piazzesi, G. (2005). Effect of Temperature on The Working Stroke of Muscle Myosin. Proceedings of The National Academy of Sciences, 102(39):13927-13932.
41. Dimitrov, S., Benedict, C., Heutling, D., Westermann, J., Born, J., Lange, T. (2009). Cortisol and Epinephrine Control Opposing Circadian Rhythms in T Cell Subsets. Blood, 113(21):5134-43.
42. Dimitrov, S., Lange, T. Born, J. (2010). Selective Mobilization of Cytotoxic Leukocytes by Epinephrine. The Journal of Immunology. 184(1)**:**503-11.
43. Drust, B., Waterhouse, J., Atkinson, G., Edwards, B., Reilly, T. (2005). Circadian Rhythms in Sports Performance--An Update. Chronobiology International, 22(1):21-44.
44. Durgan, D.J., Young, M.E. (2010). The Cardiomyocyte Circadian Clock: emerging roles in health and disease. Circ Res., 106(4):647-58.
45. Dündar, U. (2017). Antrenman Teorisi. Nobel Akademik Yayıncılık (10. Basım), Ankara.
46. Dündar, U., Çolakoğlu, M., Açıkada, C. (1995). Kondisyonel Paremetrelere Dayalı Olarak Sirkadiyen Ritim ile Sporsal Verim İlişkisinin İncelenmesi. Beden Eğitimi ve Spor Bilimleri Dergisi, 1(1):27-33.
47. Dündar, U., Gönülateş, S., Tetik, S., Yaan, T., Dündar, K. (2017). Analazing The Effects of Platelet on The Durability Training. The Online Journal of Recreation and Sport, 6(4):101-112.

48. Dündar, U., Tetik, S., Yapıcı, A. (2018). Effect of The Cortisol Hormone on Endurance Trainings in The Morning and Evening. Gazzetta Medica Italiana-Archivio Per Le Scienze Mediche, 177(4):126-33.
49. Edwards, B. J., Lindsay, K., Waterhouse, J. (2005). Effect of Time of Day on The Accuracy and Consistency of The Badminton Serve. Ergonomics, 48(11-14): 1487-1498.
50. Fernandes, A.L., Lopes-Silva, J.P., Bertuzzi, R., Casarini, D.E., Arita, D.Y., Bishop, D.J., Lima-Silva, A.E. (2014). Effect of Time of Day on Performance, Hormonal and Metabolic Response During A 1000-M Cycling Time Trial. Plos One, 9(10):E109954.
51. Ferrie, J., Kumari, M., Salo, P., Singh-Manoux A., Kivimaki, M. (2011). Sleep Epidemiology–A Rapidly Growing Field. Oxford University Press (OUP): Policy B - Oxford Open Option D, 40(6):1431-7.
52. Fox, E.L., Bowers, R.W., Foss, M.L. (1988). The Physiological Basis of Physical Education and Athletics. W.B. Saunders Collage Publishing Company (4_{th} Edition), Philadelphia.
53. Freedman, M., Lucas, R., Soni, B., Von Schantz, M., Munoz, M. David-Gray, Z. (1999). Regulation of Mammalian Circadian Behavior by Non-Rod, Non-Cone, Ocular Photoreceptors, Science. 284(5413):502-504.
54. Fröberg, J., Karlsson, C.G., Levi, L., Lindberg, L. (1972). Circadian Variations in Performance, Psychologicalratings, Catecholamine Excretion and Urine Flow During Prolonged Sleep Deprivation. Aspects of Human Efficiety. London.
55. Gery, S., Komatsu, N., Baldjyan, L., Yu, A., Koo, D., Koeffler, H.P. (2006). The Circadian Gene Per1 Plays an Important Role in Cell Growth and DNA Damage Control in Human Cancer Cells. Mol Cell., 22(3):375-82.
56. Gönülateş, S., Dündar, K. (2019). Egersiz ve Planlaması. Herkes İçin Spor ve Wellness Araştırmaları 2. Akademisyen Kitabevi, Ankara, 31-38.
57. Gönülateş, S., Tetik, S., Dündar, U., Yaan, T., Dündar, K. (2017). Analyzing The Before and After Effects of Endurance Training on ACTH Hormone. International Journal of Science Culture and Sport, 5(4):340-346.
58. Greco, C.M., Sassone-Corsi, P. (2019). Circadian Blueprint of Metabolic Pathways in The Brain. Nat Rev Neurosci., 20(2):71-82.
59. Hall, J.E. (2017). Guyton and Hall Textbook of Medical Physiology. USA: Elsevier Ltd (13_{th} Edition). Philadelphia.
60. Hakkinen, K., Pakarinen, A. (1991). Serum Hormones in Male Strength Athletes During Intensive Short Term Strength Training. Eur J Appl Physiol Occup Physiol., 63(3-4):194-9.
61. Halberg, F., Katinas, G.S., Chiba, Y., Garcia-Sanz, M., Krovats, T.G., Kinnel, H., Montalbetti, N., Reinberg, A., Scharf, R., Simpson, H. (1973). Chronobiology Glossary of The International Society for The Study of Biological Rhythms. Chronobiology International, 1:31-63.

62. Harre, D. (1982). Principles of Sport Training. Berlin: Sportverlag,
63. Hastings, M., O'neill, J.S., Maywood, E.S. (2007). Circadian Clocks: regulators of endocrine and metabolic rhythms. J Endocrinol, 195(2):187-98.
64. Haugen, H.A., Melanson, E.L., Tran, Z.V., Kearney, J.T., Hill, J.O. (2003). Variability of Measured Resting Metabolic Rate. Am J Clin Nutr., 78(6):1141-5.
65. Hayes, L.D., Bickerstaff, G.F., Baker, J.S. (2010). Interactions of Cortisol, Testosterone, and Resistance Training: influence of circadian rhythms. Chronobiology International, 27(4):675-705.
66. Hedlund, L.W., Franz, J.M., Kenny, A.D. (1975). Biological Rhythms and Endocrine Function. Plenum Press, New York.
67. Hill, D.W., Borden, D.O., Darnaby, K.M., Hendricks, D.N., Hill, C.M. (1992). Effect of Time of Day on Aerobic and Anaerobic Responses To High-Intensity Exercise. Can J Sport Sci., 17(4):316-9.
68. Hill, D.W., Smith, J.C. (1991). Circadian Rhythm in Anaerobic Power and Capacity. Can J Sports Sci., 16(1):30-2.
69. Hilton, L.K., Loucks, A.B. (2000). Low Energy Availability, Not Exercise Stress, Suppresses the Diurnal Rhythm of Leptin in Healthy Young Women. Am J Physiol Endocrinol Metab., 278(1):E43-9.
70. Hildebrandt, G. (1980). Chronobiologisghe Grundlagen Der Ordnungstherapia In: W. Bruggemann (Hrsg): Kneipp, Therapie Ein Lehrbuch. Berlin, 177-228.
71. Hildebrandt, G. (1988). Die Bedeutung Circadianer Rhythmen Für Die Bewegungs-Therapie. Z Phys Med Baln Med Klim., 17:126-141.
72. Hildebrandt, G., Engel, P. (1972). The Relation Between Diurnal Variations in Psychic and Physical Performance. Aspects of Human Effiency. London, 231-240.
73. Hildebrandt, G., Pöllmann, L. (1985). Chronobiolgische Aspekte Der Zahnarztlichen Tatigkeit in: M. Heners U.A. (Hrsg): Arneit Swissenschaft in Der Zahnheilkunde, Methoden und Ergebnisse. Berlin, 119-131.
74. Hill, D.W., Cureton, K.J., Collıns, M.A., Grısham, S.C. (1988). Effect of The Circadian Rhythm in Body Temperature on Oxygen Uptake. The Journal of Sports Med and Physical Fitness. 310-312.
75. Hollmann, W., Hettinger, T. (1980). Arbeits und Trainings Grundlagen. Stuttgart.
76. Homma, K., Hikosaka, M., Mochizuki, K., Goda, T. (2016). Loss of Circadian Rhythm of Circulating Insulin Concentration Induced by High-Fat Diet Intake Is Associated with Disrupted Clock Genes in The Liver. Metabolism, 65(4):482-492.
77. Jasper, I., Haussler, A., Baur, B., Marquardt, C., Hermsdorfer, J. (2009). Circadian Variations in The Kinematics of Handwriting and Grip Strength. Chronobiology International, 26(3):576-94.
78. Jonath, U. (1985). Circuittraining, Hamburg.

79. Kalsbeek, A., Fliers, E. (2017). Circadian and Endocrine Rhythms. Best Pract Res Clin Endocrinol Metab., 31(5):443-449.
80. Kline, C.E., Durstine, J.L., Davis, J.M., Moore, T.A., Devlin, T.M., Zielinski, M.R., Youngstedt, S.D. (2007). Circadian Variation in Swim Performance. J Appl Physiol., 102(2):641-9.
81. Kondratov, R.V. (2007). A Role of The Circadian System and Circadian Proteins in Aging. Ageing Res Rev., 6(1):12-27.
82. Krauchi, K. (2002). How Is the Circadian Rhythm of Core Body Temperature Regulated? Clin Auton Res., 12(3):147-9.
83. Kronholm, E., Partonen, T., Laatikainen, T., Peltonen, M., Harma, M., Hublin C., Kaprio, J., Aro, A.R., Partinen, M., Fogelholm, M., Valve, R., Vahtera, J., Oksanen, T., Kivimaki, M., Koskenvuo, M., Sutela, H. (2008). Trends in Self-Reported Sleep Duration and Insomnia-Related Symptoms in Finland from 1972 To 2005: a comparative review and re-analysis of finish population samples. J Sleep Res., 17(1):54-62.
84. Jha, P.K., Challet, E., Kalsbeek, A. (2015). Circadian Rhythms in Glucose and Lipid Metabolism in Nocturnal and Diurnal Mammals. Mol Cell Endocrinol., 418(Pt 1):74-88.
85. Küüsmaa, M., Schumann, M., Sedliak, M., Kraemer, W.J., Newton, R.U., Malinen, J.P., Nyman, K., Hakkinen, A., Hakkinen, K. (2016). Effects of Morning Versus Evening Combined Strength and Endurance Training on Physical Performance, Muscle Hypertrophy, and Serum Hormone Concentrations. Appl Physiol Nutr Metab., 41(12):1285-1294.
86. Kvorning, T., Andersen, M., Brixen, K., Madsen, K. (2006). Suppression of Endogenous Testosterone Production Attenuates The Response To Strength Training: a randomized, placebo-controlled, and blinded intervention study. Am J Physiol Endocrinol Metab., 291:E1325-E1332.
87. Lamont, E.W., James, F.O., Boivin, D.B., Cermakian, N. (2007). From Circadian Clock Gene Expression to Pathologies. Sleep Med., 8(6):547-56.
88. Langendonk, J.G., Pijl, H., Toorvlit, A.C., Burggraaf, J., Frolich, M., Schoemaker, R.C., Doornbos, J., Cohen, A.F., Meinders, A.E. (1998). Circadian Rhythm of Plasma Leptin Levels in Upper and Lower Body Obese Women: influence of body fat distribution and weight loss. J Clin Endocrinol Metab., 83(5):1706-12.
89. Laposky, A.D., Bass, J., Kohsaka, A., Turek, F.W. (2008). Sleep and Circadian Rhythms: key components in the regulation of energy metabolism. Febs Lett., 582(1):142-51.
90. Letzelter, H., Letzelter, M. (1986). Krafttraining: theorie, methoden, praxis. Reinbek bei Hamburg, Almanya.
91. Lévi, F. (2001). Circadian Chronotherapy for Human Cancers. Lancet Oncol., 2(5):307-15.
92. Lombardi, G., Vitale, J.A., Logoluso, S., Logoluso, G., Cocco, N., Cocco, G., Cocco, A, Banfi, G. (2017). Circannual Rhythm of Plasmatic Vitamin D Levels and The Association with Markers of Psychophysical Stress in A

Cohort of Italian Professional Soccer Players. Chronobiology International, 34(4):471-479.
93. Martin, D. (1977). Grundlagen Der Trainingslehre. Schondorf.
94. Martin, D. (1988); Leistungsspore. No:1,2.Berlin.
95. Masri, S., Kinouchi, K., Sassone-Corsi, P. (2015). Circadian Clocks, Epigenetics, and Cancer. Curr Opin Oncol., 27(1):50-56.
96. Minors, D., Waterhouse, J. (1981). Circadian Rhythms and The Human. London: Wright Psg.
97. Mirstberger, R.E. (2011). Neurobiology of Food Anticipatory Circadian Rhytms. Physiol Behav., 104(4):535-45.
98. Moul, D.E., Ombao, H., Monk, T.H., Chen, Q., Buysse, D.J. (2002). Masking Effects of Posture and Sleep Onset on Core Body Temperature Have Distinct Circadian Rhythms: results from a 90-min/day protocol. Journal of Biological Rhythms. 17(5):447-62.
99. Moussay, S., Bessot, N., Gauthier, A., Larue, J., Sesboue, B., Davenne, D. (2003). Diurnal Variations in Cycling Kinematics. Chronobiology International, 20(5):879-92.
100. Noakes, T.D. (1991). Lore of Running. Leisure Press in Campaign Co IL.
101. Oda, H. (2015). Chrononutrition. J Nutr Sci Vitaminol., 61:S92-S94.
102. Okamura, H. (2003). Circadian and Seasonal Rhythms: integration of mammalian circadian clock signals from molecule to behavior. J Endocrinol., 177(1):3-6.
103. Olson, E.N., Williams, R.S. (2000). Remodeling Muscles with Calcineurin. Bioessays., 22(6):510-9.
104. Oschütz, H. (1986). Anpassung Aus Ontogenetischer und Epigenetischer Sicht. In: Lehrheft 5-Grundlagen Der Sportmedizin: biologische entwicklung und anpassung. Leipzig. Dhfk, 18-26.
105. Oschütz, H. (1991). Chronobiologie Im Sport Med. Leistungssport, (4):12-15.
106. Oschütz. H. (1993). Zur Beteutung Der Biorhytmischen Vorgange im Organismus Für Die Belastungs und Wiederherstellungsmaßnahmen. In: Lehrheft 4- Grundlagen Der Spormedizin: Biorhytmik. Wiederherstellung. Hygiene, Sport Unter Besoderen Bedingungun. Leipzig, 8-23:119-121.
107. Özçelik, F., Erdem, M., Bolu, A., Gülsün, M. (2013). Melatonin: genel özellikleri ve psikiyatrik bozukluklardaki rolü. Psikiyatride Guncel Yaklaşımlar, 5(2):179-203.
108. Pallarés, J.G., López-Samanes, A., Moreno, J., Elías, V.E.F., Ortega, J.F., Mora-Rodríguez, R. (2014). Circadian Rhythm Effects on Neuromuscular and Sprint Swimming Performance, Biological Rhythm Research, 45(1):51-60.
109. Panda, S., Sato, T., Castrucc, A., Rollag, M., Degrip, W. Hogenesch, J. (2002). Melanopsin (Opn4) Requirement for Normal Light-Induced Circadian Phase Shifting. Science. 298: 2213-2216.

110. Parker, D.C., Sassin, J.F., Mace, J.W., Gotlin, R.W., Rossman, L.G. (1969). Human Growth Hormone Release During Sleep: Electroencephalographic Correlation. J Clin Endocrinol Metab, 29(6):871-874.
111. Pearen, M.A., Ryall, J.G., Lynch, G.S., Muscat, G.E. (2009). Expression Profiling of Skeletal Muscle Following Acute and Chronic Beta (2)-Adrenergic Stimulation: ımplications for hypertrophy, metabolism and circadian rhythm. Genomics., 10:448-468.
112. Piccione, G., Caola, G. (2002). Biological Rhythm in Livestock. J Vet Sci., 3(3):145-57.
113. Poher, A.L., Tschop, M.H., Müller, T.D. (2018). Ghrelin Regulation of Glucose Metabolism. Peptides, 100:236-242.
114. Posner, M.T., Rafal, R.P. (1987). Cognitive Theories of Attention and The Rehabilitation of Attentional Deficits. In: Meier, M., Benton, A., Diller, L., Editors. Neuropsychological Rehabilitation. New York (NY): Guilford Press, 182-201.
115. Pribil, M., Matausek, J. (1976). Biologische Rhythmen in Der Sportpraxis / Teorie A Praxe Telesne Vychovy, 1:44-51.
116. Quabbe, H.J. (1977). Chronobiology of Growth Hormone Secretion. Chronobiologia, 4:217-246.
117. Raschka, C., Müller-Nalbach, M., Rühl, T., Koch, H.J. (2002). Zirkadiane Rhythmik Von Herzfrequenz, Blutdruck und Laktat Beim Treppensteigen Mit Verschiedenen Traglasten. Sportmedizin und Sporttraumatologie, 50(4):151-154.
118. Redfern, P.H., Waterhouse, J.M., Minors, D.S., (1991). Circadian Rhythms: principles and measurement. Pharmacol Ther., 49(3):311-27.
119. Refinetti, R., (2000). Circadian Physiology. CRC press, 33-34.
120. Reilly, T., Baxter, C. (1983). Influence of Time of Day on Reactions To Cycling At A Fixed High Intensity. Br J Sports Med., 17(2):128-130.
121. Reilly, T., Garrett, R. (1995). Effects of Time of Day on Self-Paced Performances of Prolonged Exercise. J Sports Med Phys Fit., 35:99-102.
122. Reilly, T., Atkinson, G., Waterhouse, J. (1997). Biological Rhythms and Exercise. New York: Oxford University Press.
123. Reilly, T., Waterhouse, J. (2009). Sports Performance: ıs there evidence that the body clock plays a role? European Journal of Applied Physiology, 106(3):321-332.
124. Reinberg, A., Ashkenazi, I. (2003). Concepts in Human Biological Rhythms. Dialogues Clin Neurosci., 5:327-342.
125. Richards, J., Gumz, M.L. (2013). Mechanism of The Circadian Clock in Physiology. Am J Physiol Regul Integr Comp Physiol., 304:R1053-R1064.
126. Rietveld, W.J., Minors, D.S., Waterhouse, J.M. (1993). Circadian Rhythms and Masking: an overview. Chronobiology International, 10(4):306-12.
127. Rodriguez, M.R., Pallare´S, J.G., Lopez-Samanes, A., Ortega, J.F., Fernandez-Elias, V.E. (2012). Caffeine Ingestion Reverses The Circadian Rhyt-

hm Effects on Neuromuscular Performance in Highly Resistance-Trained Men. Plos One, 7(4).
128. Roenneberg, T., Wirz-Justice, A., Merrow, M. (2003). Life Between Clocks: daily temporal patterns of human chronotypes. J Biol Rhythms, 18:80-90.
129. Samanes, A.L., Pérez, D.M., Maté-Muñoz, J.L., Domínguez, R., Pallarés, J.G., Mora-Rodriguez, R., Ortega, J.F. (2016). Circadian Rhythm Effect on Physical Tennis Performance in Trained Male Players. Journal of Sports Sciences, 35(21):2121-2128.
130. Schibler, U. (2005). The Daily Rhythms of Genes, Cells and Organs. Embo Reports, 6(S1):9-13.
131. Schulz, P., Steimer, T. (2009). Neurobiology of Circadian Systems. Cns Drugs, 23(2):3-13.
132. Selvi, Y., Beşiroğlu, L., Aydın, A. (2011). Kronobiyoloji ve Duygu Durum Bozuklukları. Current Approaches in Psychiatry, 3(3):368-386.
133. Serin, Y., Acar Tek, N. (2019). Effect of Circadian Rhythm on Metabolic Processes and The Regulation of Energy Balance, Ann Nutr Metab., 74:322-330.
134. Simmonds, M.J., Minahan, C.L., Sabapathy, S. (2010). Caffeine Improves Supramaximal Cycling But Not The Rate of Anaerobic Energy Release. Eur J Appl Physiol, 109(2): 287-95.
135. Someren, E.J.W., Lijzenga, C., Mirmiran, M., Swaab, D.F. (1997). Long-Term Fitness Training Improves The Circadian Rest-Activity Rhythm in Healthy Elderly Males. Journal of Bıologıcal Rhythms, 12(2):146-156.
136. Souissi, N., Gauthier, A., Sesboüe, B., Larue, J., Davenne, D. (2002). Effects of Regular Training At The Same Time of Day on Diurnal Fluctuations in Muscular Performance. J Sport Sci., 20(11):929-37.
137. Souissi, N., Gauthier, A., Sesboüe, B., Larue, J., Davenne, D. (2004). Circadian Rhythms in Two Types of Anaerobic Cycle Leg Exercise: force-velocity and 30-s wingate tests. Int J Sports Med., 25(1):14-9.
138. Souissi, N., Bessot, N., Chamari, K., Gauthier, A., Sesboüe, B., Davenne, D. (2007). Effect of Time of Day on Aerobic Contribution To The 30-S Wingate Test Performance. Chronobiology International, 24(4):739-48.
139. Souissi, N., Driss, T., Chamari, K., Vandewalle, H., Davenne, D., Gam, A., Fillard, J.L., Jousselin, E. (2010). Diurnal Variation in Wingate Test Performances: influence of active warm-up. Chronobiology International, 27(3):640-52.
140. Spiering, B.A., Kraemer, W.J., Anderson, J.M., Armstrong, L.E., Nindl, B.C., Volek, J.S., Maresh, C.M. (2008). Resistance Exercise Biology: manipulation of resistance exercise programme variables determines the responses of cellular and molecular signalling pathways. Sports Med., 38:527-540.

141. Starkie, R.L., Hargreaves, M., Lambert, D.L., Proietto, J., Febbraio, M.A. (1999). Effect of Temperature on Muscle Metabolism During Submaximal Exercise in Humans. Exp Physiol., 84(4):775-84.
142. Tajiri, Y. (2017). Ghrelin and Exercise: a possible virtuous circle. Diabetol Int., 8(4):347-349.
143. Teo, W., Newton, M.J., Mcguigan, M.R. (2011). Circadian Rhythms in Exercise, Implications For Hormonal and Muscular Adaptation. J Sport Sci Med., 10:600-606.
144. Teo, W., Mcguigan, M., Newton, M.J. (2011). The Effects of Circadian Rhythmicity of Salivary Cortisol and Testosterone on Maximal İsometric Force, Maximal Dynamic Force, and Power Output. J Strength Cond Res., 25(6):1538-45.
145. Tetik, S., Dündar, U., Gönülateş, S., Yaan, T., Dündar, K. (2018). The Effects of Mornıng and Evenıng Endurance Traınıng on TSH and FT4 Hormones. The Online Journal of Recreation and Sport, 7(1): 20-29
146. Timon, R., Olcina, G., Tomas-Carus, P., Munoz, D., Toribio, F., Raimundo, A., Maynar, M. (2009). Urinary Steroid Profile After The Completion of Concentric and Concentric/Eccentric Trials With The Same Total Workload. J Physiol Biochem., 65:105-112.
147. Valdez, P. (2019). Circadian Rhythms in Attention. Yale Journal of Bıology And Medıcıne, 92:81-92
148. Vingren, J.L., Kraemer, W.J., Hatfield, D.L., Anderson, J.M., Volek, J.S., Ratamess, N.A., Thomas, G.A., Ho, J.Y., Fragala, M.S., Maresh, C.M. (2008). Effect of Resistance Exercise on Muscle Steroidogenesis. J Appl Physiol., 105:1754-1760.
149. Vitale, J.A., Lombardi, G., Cavaleri, L., Graziani, R., Schoenhber, H., Torre, A., Banfi, G. (2018). Rates of Insufficiency and Deficiency of Vitamin D Levels in Elite Professional Male and Female Skiers: a chronobiological approach. Chronobiology International, 35(4):441-449.
150. Vıdacek, S. (1986). Personality Differences in The Phase of Circadian Rhythms: a comparision of morningness and extraversion. Ergonomics, 31(6):873-888.
151. Waterhouse, J., Drust, B., Weinert, D., Edwards, B., Gregson, W., Atkinson, G., Kao, S.Y., Aizawa, S. Reilly, T. (2005). The Circadian Rhythm of Core Temperature: origin and some implications for exercise performance. Chronobiology International, 22(2):207-225.
152. Waterhouse, J., Reilly, T., Edwards, B. (2004). The Stress of Travel. Journal of Sports Sciences, 22:946-966.
153. Waterhouse, J.M., Lynch, C.A. (1990). Does Time of Training Affects Its Effectiveness? J Interdiscipl Crcl Res., 21(3):50-252.
154. Werschoshanskij, J.W. (1972). Moderness Krafttraining im Sport. Berlin.
155. Williams, C. (1975). Special Form an Effects of Endurance Training. Meadowbank Convention Report.

156. Winget, C.M., DeRoshia, C.W., Holley, D.C. (1985). Circadian Rhythms and Atletic Performance. Med Sci Sports Exerc., 17(5):498-516.
157. Wu, T., Ni, Y., Dong, Y., Xu, J., Song, X., Kato, H., Fu, Z. (2010). Regulation of Circadian Gene Expression in The Kidney by Light and Food Cues in Rats. Am J Physiol Regul Integr Comp Physiol., 298:R635-R641.
158. Yaan, T. (2019). Futbolda Dayanıklılık Antrenmanı. Herkes İçin Spor ve Wellness Araştırmaları 2, Akademisyen Kitabevi Ankara, 85-93.
159. Xie, Y., Tang, Q., Chen, G., Xie, M., Yu, S., Zhao, J., Chen, L. (2019). New Insights into The Circadian Rhythm and Its Related Diseases. Frontiers in Physiology.
160. Zhu, L., Zee, P.C. (2012). Circadian Rhythm Sleep Disorders. Neurol Clin., 30(4):1167-91.