

REVIEW

The locomotor system as seen in Brazilian scientific journals: a mini review

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OBJECTIVE: To make recent selected publications on the locomotor system available to the readership of Clinics.

METHOD: A general survey of articles published in selected Brazilian journals was inspected and 91 articles were critically analyzed. They were categorized and briefly described. A final summary of themes is reproduced here.

RESULTS: Papers fall into two main categories: articular and muscular pathology and therapeutics; medical sports. A number of papers are not classifiable under these headings.

CONCLUSION: The locomotor system has been extensively analyzed and discussed in the Brazilian scientific press in recent years. Not surprisingly, knee and ankle pathology, soccer and running are dominant themes.

KEYWORDS: Locomotor system; Sports medicine; Osteoarticular pathology; Muscular dysfunction.

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INTRODUCTION

In its function of presenting medical scientific data to our readership, we endeavor to generate critical review articles on subjects covered by Brazilian journals which are now gradually acquiring a higher level of international visibility, largely through recent inclusion in such databases as PUBMED, SCIMAGO and ISI THOMSON JCR. To cover the field of the locomotor system a general survey of articles published in selected Brazilian journals was inspected and 91 articles were critically analyzed. A number of articles come from our own periodical, but only cover contributions published in this year (2010). Selected articles were categorized and briefly described. A final summary of themes is reproduced.

METHOD

Examining articles directly or indirectly related to the locomotor system we detected a sample of 91 recently published articles by the journals listed in Table 1; this also shows the distribution of the articles throughout the seven selected journals. As might be expected, Acta Ortopédica Brasileira and Revista Brasileira de Medicina do Esporte are the most important contributors.

Table 2 shows the main aspects covered in these articles. In terms of anatomical structures, the knees predominate,

while in terms of sports modalities, the generic title of exercise represents the largest number of publications.

GENERAL ANALYSIS

Anatomical problems: Selected papers cover anatomical problems of the foot, ankle, hip, knee, and shoulder as well as problems dealing with muscle and posture.

Five articles cover anatomical problems of the foot and ankle: a new screw is described for the surgical treatment of metatarsal lesions;¹ the arterial anatomy in congenital clubfoot was evaluated;⁷ the epidemiology of ankle sprains in volleyball high performance athletes was evaluated;¹² a biomechanical study on the stabilization of tarsometatarsal joint arthrodesis was performed;¹⁷ the effects of the active ankle system stabilizer in the vertical jump height in volleyball players is discussed.⁷⁴

Four articles cover hip problems: describe predictive factors for gait in femoral transtrochanteric fractures is analyzed;⁶ a new semiologic maneuver for the diagnosis of peritrochanteric bursitis is described;⁸ postoperative gait function following direct lateral and posterolateral approaches for total hip arthroplasty was compared;¹⁴ a discussion of physical and sports activity after hip arthroplasty is presented.⁸²

As might be predicted the knee is the most frequently examined anatomical subject, with 12 selected papers: knee stability and mechanics is the object of four papers;^{2,3,16,36} anesthetic procedures for knee surgery is discussed in 2 articles;^{27,34} various forms of knee injury are discussed in four articles;^{5,10,13,70} one articles examines the properties of synovial plicae³⁰ while one deals with osteoarthritis.³²

Eight articles highlight muscular problems: muscular mechanics is the object of five publications;^{18,71,78,83,86} muscular injuries and treatment thereof are examined in

Table 1 - Distribution of articles by publication source.

Journal	number of articles	references
Acta Ortopedica Brasileira	18	1-18
Arquivos Brasileiros de Endocrinologia e Metabologia	7	19-25
Clinics	14	26-39
Jornal Brasileiro de Pneumologia	10	40-49
Revista Associação Médica Brasileira	7	50-56
Revista Brasileira de Cirurgia Cardiovascular	11	57-67
Revista Brasileira de Medicina do Esporte	24	68-91

Table 2 - Subject index of Brazilian journal publications on the locomotor system.

Subject	references
1. Anatomical	
Foot/Ankle	1,7,12,17,74
Hip	6,8,14,82
Knee	2,3,5,10,13,16,27,30,32,34,36,70
Muscle	4,11,18,28,71,78,83,86
Posture	33,69
Shoulder	15
2. Sport modalities	
Exercise (generic)	9,11,12,13,20,23,25,31,32,35,41,44,45,48,50,54,55,57,59,60,61,66,67,73,75,79,80,82,84,90
Cyclism	85
Football/Soccer	1,70,88
Running	69,71,72,76,87
Sailing	91
Swimming	68,77,81
Volleyball	74
3. Other	
Metabolic Syndrome	19,21,22,24,37,42,52,55
Miscellaneous	29,38,39,40,43,46,47,49,51,53,56,58,62,63,64,65

two articles^{4,11} while one article deals with the histology of frozen muscle.²⁸

Two articles cover problems related to posture,^{33,69} while a single paper examines anatomical problems in the shoulder.¹⁵

Sport modalities. By far the most frequently covered subjects were the repercussions of exercise, examined generally, on the locomotor system. Table 2 lists 29 articles covering different sports modalities and different aspects of the locomotor function. Specific sports analysis are covered for cyclism, football/soccer, running, sailing, swimming, and volleyball. The musculoskeletal injuries in athletes of the 2006 season's Brazilian women's speed canoeing team were described;¹¹ Anaerobic Power Output of Elite Off-road Cyclists With Acute Oral Creatine Supplementation was measured;⁸⁵ three papers cover lesions and their treatment in football/soccer players;^{1,70,88} running is discussed in five articles^{69,71,72,76,87} covering posture, muscle contraction velocity, lactate production in an experimental murine model of running, injuries, and the effect of water temperature on aquatic walking; an epidemiological analysis is performed on Brazilian sailing athletes at different levels of technical competence;⁹¹ three articles cover swimming: nutrition of disabled subjects practicing swimming is analyzed,⁶⁸ the effects of swimming and resistance training on bone mineral density was measured⁷⁷ and the initial

swimming ability in patients with spinal cord injury was analyzed.⁸¹ A single paper is dedicated to one of Brazil's most successful sporting modalities, volleyball, in which the mechanics on the spiking/blocking jump of high performance volley players is subject to an interesting procedure of mechanical evaluation.⁷⁴

Metabolic syndrome and its correlations with the locomotor system are the object of eight articles:^{19,21,22,24,37,42,52,55} they cover critical problems relating to the effects of overweight and obesity upon the motor system, sporting performance, the ability of the cardiovascular system to adjust to exercise, and to ageing.

Table 2 also shows that as many as 16 published articles relate to the locomotor system but cannot be categorized under specific headings. Readers are advised to go through this collection and pick what may most interest them.

REFERENCES

- Ozturk H, Kaygusuz K. New screw (Acutrak®) in the surgical treatment of elite football players with fifth metatarsal. *Acta ortop. bras.* 2009;17(5):262-4, doi: 10.1590/S1413-78522009000500001.
- Reis JG, Costa GC, Cliquet Júnior A, Piedade SR. Kinematic analysis of the knee when climbing up/down stairs in patellofemoral instability. *Acta ortop. bras.* 2009;17(3):152-4, doi: 10.1590/S1413-78522009000300005.
- Trilha Junior Marcial FEA, Roesler CRM, More ADO. Three-dimensional numerical simulation of human knee joint mechanics. *Acta ortop. bras.* 2009;17(2):18-23.
- Sene GL, Shimano AC, Picado CHF. Muscular mechanical recovery with laser. *Acta ortop. bras.* 2009;17(2):46-9, doi: 10.1590/S1413-78522009000200009.
- Demange MK, Camanho GL, Pécora JR, Greve JM, Silva ADP, Reginato TJB. Isokinetic evaluation of patients submitted to total knee arthroplasty. *Acta ortop. bras.* 2009;17(1):22-5, doi: 10.1590/S1413-78522009000100004.
- Assunção JH, Fernandes TL, Santos ALG, Sakaki MH, Zumiotti AV. Predictive factors for gait in femoral transtrochanteric fractures. *Acta ortop. bras.* 2009;17(1):35-9, doi: 10.1590/S1413-78522009000100007.
- Pinto JA, Blumetti FC, Iha LAN, Terasaka MK, Sodré H, Ishida A. Evaluation of arterial anatomy in congenital clubfoot with color doppler ultrasound. *Acta ortop. bras.* 2008;16(5):270-4, doi: 10.1590/S1413-78522008000500003.
- Fujiki EN, Furlan C, Valesin Filho ES, Soutello HPF, Yamagushi EN. Peritrochanteric bursitis: a description of a new semiologic maneuver for diagnostic assistance. *Acta ortop. bras.* 2008;16(5):296-300, doi: 10.1590/S1413-78522008000500009.
- Gama MCS, Fernandes LFRM, Benites EG, Rodrigues S, Teodori RM. Evaluation of partial static weight load training. *Acta ortop. bras.* 2008;16(5):301-4, doi: 10.1590/S1413-78522008000500010.
- Stewien ETM, Melo ES, Pereira MAM, Camargo OPA. Anterior cruciate ligament injury among brazilian indian population living in Amazonas. *Acta ortop. bras.* 2008;16(4):204-6, doi: 10.1590/S1413-78522008000400003.
- Hensel P, Perroni MG, Leal Junior ECP. Musculoskeletal injuries in athletes of the 2006 season's Brazilian women's speed canoeing team. *Acta ortop. bras.* 2008;16(4):233-7, doi: 10.1590/S1413-78522008000400009.
- Fortes CRN, Carazzato JG. Ankle sprains in volleyball high-performance athletes: an epidemiological study. *Acta ortop. bras.* 2008;16(3):142-7, doi: 10.1590/S1413-78522008000300003.
- Cabral CMN, Melim AMOS, Sacco ICN, Marques AP. Physical therapy in patellofemoral syndrome patients: comparison of open and closed kinetic chain exercises. *Acta ortop. bras.* 2008;16(3):180-5, doi: 10.1590/S1413-78522008000300012.
- Afonso MAR, Franco JS, Cabral FJP, D'Angelo MD, Alves FRV. Direct lateral and posterolateral approaches for total hip arthroplasty: comparison of postoperative gait function. *Acta ortop. bras.* 2008;16(2):74-80, doi: 10.1590/S1413-78522008000200002.
- Barbosa RI, Marcolino M, Fonseca MCR, Mazzer N, Zatiti SC. Retrospective functional assessment of patients with humerus proximal fractures internally fixed with a fixed-angle plate for proximal humerus area. *Acta ortop. bras.* 2008;16(2):89-92, doi: 10.1590/S1413-78522008000200005.
- Marco FA, Rozim AZ, Piedade SR. Knee joint stability in a "floating knee" condition. *Acta ortop. bras.* 2008;16(1):32-6, doi: 10.1590/S1413-78522008000100006.
- Fernandes TD, Santos ALG, Corsato MA, Sakaki MH, Ortiz RT, Prado MP. Stabilization of tarsometatarsal joint arthrodesis: a biomechanical study. *Acta ortop. bras.* 2008;16(1):45-8, doi: 10.1590/S1413-78522008000100009.

18. Dalla DVHS, Duarte E, Rebelatto JR, Castro AP. Muscle strength in older people with and without depression participating in a gym program. *Acta ortop. bras.* 2009;17(6):322-5.
19. Coelho MS, Assis MA, Moura EC. [Body mass index increase after the age of 20 and associations with risk or protection factors for chronic non-communicable diseases]. *Arq Bras Endocrinol Metabol.* 2009;53(9):1146-1156.
20. Cordeiro RC, Jardim JR, Perracini MR, Ramos LR. Factors associated with functional balance and mobility among elderly diabetic outpatients. *Arq Bras Endocrinol Metabol.* 2009;53(7):834-843.
21. Deram S, Villares SM. Genetic variants influencing effectiveness of weight loss strategies. *Arq Bras Endocrinol Metabol.* 2009;53(2):129-138.
22. Lottenberg AM. [Importance of the dietary fat on the prevention and control of metabolic disturbances and cardiovascular disease]. *Arq Bras Endocrinol Metabol.* 2009;53(5):595-607.
23. Nascimento TB, Glaner MF, Paccini MK. [Influence of body composition and age on bone density in relation to levels of physical activity]. *Arq Bras Endocrinol Metabol.* 2009;53(4):440-445.
24. Paz-Filho GJ, Volaco A, Suplicy HL, Radominski RB, Boguszewski CL. Decrease in leptin production by the adipose tissue in obesity associated with severe metabolic syndrome. *Arq Bras Endocrinol Metabol.* 2009;53(9):1088-1095.
25. Siqueira Lde O, Muccini T, Dall Agnol I, Filla L, Tibbolla P, Luvison A, et al. [Serum chemistry test and urinalysis parameter analysis in half marathon athletes]. *Arq Bras Endocrinol Metabol.* 2009;53(7):844-852.
26. Angelini FJ, Albuquerque RF, Sasaki SU, Camanho GL, Hernandez AJ. Comparative study on anterior cruciate ligament reconstruction: determination of isometric points with and without navigation. *Clinics.* 2010;65(7):683-688.
27. Arslan M, Canturk M, Ornek D, Gamli M, Pala Y, Dikmen B, et al. Regional intravenous anesthesia in knee arthroscopy. *Clinics.* 2010;65(9):831-835.
28. Bitar AC, Santos LA, Croci AT, Pereira JA, Franca Bisneto EN, Giovani AM, et al. Histological study of fresh versus frozen semitendinous muscle tendon allografts. *Clinics.* 2010;65(3):297-303, doi: 10.1590/S1807-59322010000300010.
29. Bloch F, Thibaud M, Dugue B, Breque C, Rigaud A, Kemoun G. Episodes of falling among elderly people: a systematic review and meta-analysis of social and demographic pre-disposing characteristics. *Clinics (Sao Paulo).* 2010;65(9):895-903.
30. Camanho GL. Treatment of pathological synovial plicae of the knee. *Clinics.* 2010;65(3):247-250, doi: 10.1590/S1807-59322010000300002.
31. Cardoso CG, Jr., Gomides RS, Queiroz AC, Pinto LG, da Silveira Lobo F, Tinucci T, et al. Acute and chronic effects of aerobic and resistance exercise on ambulatory blood pressure. *Clinics.* 2010;65(3):317-325.
32. Carvalho NA, Bittar ST, Pinto FR, Ferreira M, Sitta RR. Manual for guided home exercises for osteoarthritis of the knee. *Clinics.* 2010;65(8):775-780, doi: 10.1590/S1807-59322010000800006.
33. Ferreira EA, Duarte M, Maldonado EP, Burke TN, Marques AP. Postural assessment software (PAS/SAPO): Validation and reliability. *Clinics.* 2010;65(7):675-681, doi: 10.1590/S1807-59322010000700005.
34. Horasanli E, Gamli M, Pala Y, Erol M, Sahin F, Dikmen B. A comparison of epidural anesthesia and lumbar plexus-sciatic nerve blocks for knee surgery. *Clinics.* 2010;65(1):29-34.
35. Lacaze DH, Sacco Ide C, Rocha LE, Pereira CA, Casarotto RA. Stretching and joint mobilization exercises reduce call-center operators' musculoskeletal discomfort and fatigue. *Clinics.* 2010;65(7):657-662.
36. Lasmar RC, Marques de Almeida A, Serbino JW, Jr., da Mota Albuquerque RF, Hernandez AJ. Importance of the different posterolateral knee static stabilizers: biomechanical study. *Clinics.* 2010;65(4):433-440, doi: 10.1590/S1807-59322010000400013.
37. Tiryakioglu O, Ugurlu S, Yalin S, Yirmibesic S, Caglar E, Yetkin DO, et al. Screening for Cushing's syndrome in obese patients. *Clinics (Sao Paulo).* 2010;65(1):9-13.
38. Vollala VR. A comment on "variability in the origin of the obturator artery". *Clinics.* 2010;65(1):120, doi: 10.1590/S1807-59322010000100020.
39. Zamo FS, Lacchini S, Mostarda C, Chiavegatto S, Silva IC, Oliveira EM, et al. Hemodynamic, morphometric and autonomic patterns in hypertensive rats - Renin-Angiotensin system modulation. *Clinics.* 2010;65(1):85-92, doi: 10.1590/S1807-59322010000100013.
40. Angelini L, Robles-Ribeiro PG, Carvalho-Pinto RM, Ribeiro M, Cukier A, Stelmach R. Two-year evaluation of an educational program for adult outpatients with asthma. *J Bras Pneumol.* 2009;35(7):618-627.
41. Camargo VM, Martins Bdo C, Jardim C, Fernandes CJ, Hovnanian A, Souza R. Validation of a treadmill six-minute walk test protocol for the evaluation of patients with pulmonary arterial hypertension. *J Bras Pneumol.* 2009;35(5):423-430.
42. Drumond SC, Fontes MJ, Assis I, Duarte MA, Lamounier JA, Lopes Orlandi LC, et al. Comparison of three sets of reference equations for spirometry in children and adolescents with distinct body mass indices. *J Bras Pneumol.* 2009;35(5):415-422.
43. Fernandes AL. Asthma, a chronic disease whose manifestations go beyond respiratory distress, physical limitation and impaired quality of life. *J Bras Pneumol.* 2009;35(4):293-294.
44. Ferreira SA, Guimaraes M, Taveira N. Pulmonary rehabilitation in COPD: from exercise training to 'real life'. *J Bras Pneumol.* 2009;35(11):1112-1115.
45. Hernandez NA, Teixeira Dde C, Probst VS, Brunetto AF, Ramos EM, Pitta F. Profile of the level of physical activity in the daily lives of patients with COPD in Brazil. *J Bras Pneumol.* 2009;35(10):949-956.
46. Lima LN, da Silva RA, Gross JL, Deheinzelin D, Negri EM. Assessment of pulmonary function and quality of life in patients submitted to pulmonary resection for cancer. *J Bras Pneumol.* 2009;35(6):521-528.
47. Manguera NM, Viega IL, Manguera Mde A, Pinheiro AN, Costa Mdo R. Correlation between clinical parameters and health-related quality of life in women with COPD. *J Bras Pneumol.* 2009;35(3):248-255.
48. Pelegrino NR, Lucheta PA, Sanchez FF, Faganello MM, Ferrari R, Godoy I. Influence of lean body mass on cardiopulmonary repercussions during the six-minute walk test in patients with COPD. *J Bras Pneumol.* 2009;35(1):20-26.
49. Pereira ED, Pinto R, Alcantara M, Medeiros M, Mota RM. Influence of respiratory function parameters on the quality of life of COPD patients. *J Bras Pneumol.* 2009;35(8):730-736.
50. Barroso WK, Jardim PC, Vitorino PV, Bittencourt A, Miquetichuc F. [The influence of programmed physical activity on blood pressure of hypertensive elderly patients on non-pharmacological treatment]. *Rev Assoc Med Bras.* 2008;54(4):328-333, doi: 10.1590/S0104-42302008000400018.
51. Camillo CC, Amancio OM, Vitale MS, Braga JA, Juliano Y. [Anemia and nutritional status of children in day-care centers in Guaxupe]. *Rev Assoc Med Bras.* 2008;54(2):154-159, doi: 10.1590/S0104-42302008000200020.
52. Haun DR, Pitanga FJ, Lessa I. [Waist-height ratio compared to other indicators of obesity as predictor of high coronary risk]. *Rev Assoc Med Bras.* 2009;55(6):705-711, doi: 10.1590/S0104-42302009000600015.
53. Langowski AR, Lima Junior E, Knopfholz J, Reichert A, Nogueira MO, Faria Neto JR, et al. [Arterial pressure monitoring in offspring of hypertensive individuals at a day-care center]. *Rev Assoc Med Bras.* 2008;54(2):163-166, doi: 10.1590/S0104-42302008000200022.
54. Moraes AC, Fernandes CA, Elias RG, Nakashima AT, Reichert FF, Falcao MC. [Prevalence of physical inactivity and associated factors in adolescents]. *Rev Assoc Med Bras.* 2009;55(5):523-528, doi: 10.1590/S0104-42302009000500013.
55. Orsi JV, Nahas FX, Gomes HC, Andrade CH, Veiga DF, Novo NF, et al. [Impact of obesity on the functional capacity of women]. *Rev Assoc Med Bras.* 2008;54(2):106-109, doi: 10.1590/S0104-42302008000200010.
56. Rodrigues TF, Philippi ST. [Nutritional evaluation and cardiovascular risk in executives submitted to a check-up]. *Rev Assoc Med Bras.* 2008;54(4):322-327, doi: 10.1590/S0104-42302008000400017.
57. Delbin MA, Antunes E, Zanesco A. Role of exercise training on pulmonary ischemia/reperfusion and inflammatory response. *Rev Bras Cir Cardiovasc.* 2009;24(4):552-561, doi: 10.1590/S0102-76382009000500017.
58. Dos Santos CH, Pontes G, Gomes OM, Mijji LN, Bispo MA. Evaluation of ischemic postconditioning effect on mesenteric ischemia treatment: experimental study in rats. *Rev Bras Cir Cardiovasc.* 2009;24(2):150-156.
59. Flores DM, Kalil RA, Lima GG, Abraham R, Sant'anna JR, Prates PR, et al. Chronotropic response to exercise after pulmonary veins isolation or Cox-maze operation. *Rev Bras Cir Cardiovasc.* 2008;23(4):474-479, doi: 10.1590/S0102-76382008000400004.
60. Garbossa A, Maldaner E, Mortari DM, Biasi J, Leguisamo CP. Effects of physiotherapeutic instructions on anxiety of CABG patients. *Rev Bras Cir Cardiovasc.* 2009;24(3):359-366, doi: 10.1590/S0102-76382009000400016.
61. Gomes WJ, Braille DM. SYNTAX trial: analysis and clinical implications. *Rev Bras Cir Cardiovasc.* 2008;23(4):III-V, doi: 10.1590/S0102-76382008000400002.
62. Helito RA, Branco JN, D'Innocenzo M, Machado RC, Buffolo E. Quality of life in heart transplant candidates. *Rev Bras Cir Cardiovasc.* 2009;24(1):50-57, doi: 10.1590/S0102-76382009000100010.
63. Morsch KT, Leguisamo CP, Camargo MD, Coronel CC, Mattos W, Ortiz LD, et al. Ventilatory profile of patients undergoing CABG surgery. *Rev Bras Cir Cardiovasc.* 2009;24(2):180-187, doi: 10.1590/S0102-76382009000200014.
64. Mustafa RM, Verazain JV, Cavalcante MA, Pacheco FC, Ebaid HI, Jorge PH, et al. Analysis of coronary vascular resistance and blood flow of venous graft in coronary artery bypass grafting. *Rev Bras Cir Cardiovasc.* 2009;24(2):200-204, doi: 10.1590/S0102-76382009000200017.
65. Oliveira DM, Gomes ES, Mussivand T, Fiorelli AI, Gomes OM. Effects of n-acetylcysteine on ischemic preconditioning: study in isolated rat hearts. *Rev Bras Cir Cardiovasc.* 2009;24(1):23-30.
66. Oliveira EK, Silva VZ, Turquetto AL. Relationship on walk test and pulmonary function tests with the length of hospitalization in cardiac surgery patients. *Rev Bras Cir Cardiovasc.* 2009;24(4):478-484.
67. Renault JA, Costa-Val R, Rosseti MB, Houry Neto M. Comparison between deep breathing exercises and incentive spirometry after CABG surgery. *Rev Bras Cir Cardiovasc.* 2009;24(2):165-172, doi: 10.1590/S0102-76382009000200012.
68. Barreto FS, Panziera C, Sant'Anna MM, Mascarenhas MA, Fayh APT. Nutritional Assessment of Disabled Subjects Practitioners of Swimming. *Revista Brasileira De Medicina Do Esporte.* 2009 May-Jun;15(3):214-8, doi: 10.1590/S1517-86922009000300010.

69. Bastos FD, Pastre CM, Netto J, Vanderlei LCM, Carvalho G, Hoshi RA, et al. Correlation of the Postural Standard in Young Track and Field Practitioners. *Revista Brasileira De Medicina Do Esporte*. 2009 Nov-Dec;15(6):432-5, doi: 10.1590/S1517-86922009000700006.
70. Brito J, Soares J, Rebelo AN. Prevention of Injuries of the Anterior Cruciate Ligament in Soccer Players. *Revista Brasileira De Medicina Do Esporte*. 2009 Jan-Feb;15(1):62-9, doi: 10.1590/S1517-86922009000100014.
71. Corvino RB, Caputo F, de Oliveira AC, Greco CC, Denadai BS. Rate of Force Development in Different Muscle Contraction Velocities. *Revista Brasileira De Medicina Do Esporte*. 2009 Nov-Dec;15(6):428-31, doi: 10.1590/S1517-86922009000700005.
72. de Araujo MB, Manchado-Gobatto FD, Voltarelli FA, Ribeiro C, Mota CSD, Gobatto CA, et al. Running Training Effects in Different Intensities on the Aerobic Capacity and Lactate Production by the Muscle of Wistar Rats. *Revista Brasileira De Medicina Do Esporte*. 2009 Sep-Oct;15(5):365-9.
73. de Souza JB. Can Exercise Induce Analgesia in Patients With Chronic Pain? *Revista Brasileira De Medicina Do Esporte*. 2009 Mar-Apr;15(2):145-50.
74. dos Anjos MTS, Brasil LJ, Barros BD, Bastos NCD, Moraes GFD. Effect of the Use of the Active Ankle System Stabilizer in The Vertical Jump Height in Volleyball Players. *Revista Brasileira De Medicina Do Esporte*. 2009 Sep-Oct;15(5):347-50.
75. Endlich PW, Farina GR, Dambroz C, Goncalves WLS, Moyses MR, Mill JG, et al. Acute Effects of Static Stretching in Dynamic Force Performance in Young Men. *Revista Brasileira De Medicina Do Esporte*. 2009 May-Jun;15(3):200-3, doi: 10.1590/S1517-86922009000300007.
76. Hino AAF, Reis RS, Rodriguez-Anez CH, Fermino RC. Prevalence of Injuries and Associated Factors Among Street Runners. *Revista Brasileira De Medicina Do Esporte*. 2009 Jan-Feb;15(1):36-9, doi: 10.1590/S1517-86922009000100008.
77. Kemper C, de Oliveira RJ, Bottaro M, Moreno R, Bezerra LMA, Guido M, et al. Effects of Swimming and Resistance Training on Bone Mineral Density of Older Women. *Revista Brasileira De Medicina Do Esporte*. 2009 Jan-Feb;15(1):10-3, doi: 10.1590/S1517-86922009000100002.
78. Liebano RE, Alves LM. Comparison of the Sensory Discomfort Index During Neuromuscular Electrical Stimulation With Low and Medium Excitomotor Frequencies in Healthy Women. *Revista Brasileira De Medicina Do Esporte*. 2009 Jan-Feb;15(1):50-3, doi: 10.1590/S1517-86922009000100011.
79. Matteoni SPC, Bueno CR, Teixeira LR. Effect of a Physical Fitness Program on the Exercise-Induced Bronchospasm in Obese Women. *Revista Brasileira De Medicina Do Esporte*. 2009 May-Jun;15(3):190-4, doi: 10.1590/S1517-86922009000300005.
80. Meira TD, de Moraes FL, Boehme MTS. Correlations among Leptin, Puberty and Exercise in Females. *Revista Brasileira De Medicina Do Esporte*. 2009 Jul-Aug;15(4):306-10, doi: 10.1590/S1517-86922009000500015.
81. Melo ACR. Description of Initial Swimming Ability in Patients with Spinal Cord Injury. *Revista Brasileira De Medicina Do Esporte*. 2009 Nov-Dec;15(6):441-5, doi: 10.1590/S1517-86922009000700008.
82. Melo ACR. Physical and Sports Activity After Hip Arthroplasty. *Revista Brasileira De Medicina Do Esporte*. 2009 Sep-Oct;15(5):389-91, doi: 10.1590/S1517-86922009000600014.
83. Milazzotto MV, Corazzina LG, Liebano RE. Influence of the Number of Sets and Time of Static Stretching on the Flexibility of Hamstring Muscles in Sedentary Women. *Revista Brasileira De Medicina Do Esporte*. 2009 Nov-Dec;15(6):420-3, doi: 10.1590/S1517-86922009000700003.
84. Modolo VB, de Mello MT, de Gimenez PRB, Tufik S, Antunes HKM. Physical Exercise Dependence: Mood, Quality of Life in Amateur and Professional Athletes. *Revista Brasileira De Medicina Do Esporte*. 2009 Sep-Oct;15(5):355-9, doi: 10.1590/S1517-86922009000600007.
85. Molina GE, Rocco GF, Fontana KE. Anaerobic Power Output of Elite Off-road Cyclists With Acute Oral Creatine Supplementation. *Revista Brasileira De Medicina Do Esporte*. 2009 Sep-Oct;15(5):374-7, doi: 10.1590/S1517-86922009000600011.
86. Neto AG, Manfira EF. Influence of Static Stretching Volume in Isokinetic Variables of Hamstrings. *Revista Brasileira De Medicina Do Esporte*. 2009 Mar-Apr;15(2):104-9.
87. Ovando AC, Eickhoff HM, Dias JA, Winkelmann ER. Effect of Water Temperature in Cardiovascular Responses During Aquatic Walking. *Revista Brasileira De Medicina Do Esporte*. 2009 Nov-Dec;15(6):415-9, doi: 10.1590/S1517-86922009000700002.
88. Palacio EP, Candeloro BM, Lopes AD. Injuries in the Professional Soccer Players of Marilia Atletico Clube: a Cohort Study of the Brazilian Championship, 2003 to 2005. *Revista Brasileira De Medicina Do Esporte*. 2009 Jan-Feb;15(1):31-5, doi: 10.1590/S1517-86922009000100007.
89. Panissa VLG, Bertuzzi RCD, de Lira FS, Julio UF, Franchini E. Concurrent Exercise: Analysis of the Acute Effect of the Performance Order on the Total Energy Expenditure. *Revista Brasileira De Medicina Do Esporte*. 2009 Mar-Apr;15(2):127-31, doi: 10.1590/S1517-86922009000200009.
90. Pauli JR, Ropelle ER, Cintra DE, de Souza CT. Effects of Physical Exercise in the Ampk alpha Expression and Activity in High-fat Diet Induced Obese Rats. *Revista Brasileira De Medicina Do Esporte*. 2009 Mar-Apr;15(2):98-103, doi: 10.1590/S1517-86922009000200003.
91. Ruschel C, de Menezes FS, Hauptenthal A, Hubert M, Schutz GR, Cerutti PR, et al. Incidence of Injuries in Brazilian Sailors of Different Technical Levels. *Revista Brasileira De Medicina Do Esporte*. 2009 Jul-Aug;15(4):268-71, doi: 10.1590/S1517-86922009000500007.