

Referencias bibliográficas

Pedro Ángel López Miñarro

Universidad de Murcia

**Estabilidad raquídea, manejo de
cargas y ejecución correcta y segura
de los ejercicios**



- Adams, M.A. y Hutton, W.C. (1985). The effect of posture on the lumbar spine. *The Journal of Bone and Joint Surgery British*, 67, 625-629.
- Adams, M.A. y Dolan, P. (1988). The lumbar spine in backward bending. *Spine*, 13, 1019-1026.
- Adams, M.A.; Dolan, P. y Hutton, W.C. (1987). Diurnal variations in the stresses on the lumbar spine. *Spine*, 12, 130-137.
- Adams, M.A. y Hutton, W.C. (1988). *The biology of the intervertebral disc*. Boca Ratón: CRC Press.
- Adams, M.A.; Dolan, P.; Hutton, W.C. y Porter, R.W. (1990). Diurnal changes in spinal mechanics and their clinical significance. *The Journal of Bone and Joint Surgery British*, 72(2), 266-270.
- Adams, M.A.; Green, T.P. y Dolan P. (1994). The strength in anterior bending of lumbar intervertebral discs. *Spine*, 19(19), 2197-2203.
- Adams, M.A. y Dolan, P. (1995). Recent advances in lumbar spinal mechanics and their clinical significance. *Clinical Biomechanics*, 10(1), 3-19.
- Adams, M.A. y Dolan, P. (1996). Time dependent changes in the lumbar spine's resistance to bending. *Clinical Biomechanics*, 11(4), 194-200.
- Adams, M.A. y Dolan, P. (1997). Could sudden increases in physical activity cause degeneration of intervertebral discs?. *The Lancet*, 350(9079), 734-735.
- Adams, M.A.; Morrison, H.M.; Freeman, B.J. y Dolan, P. (1998a). The effects of lumbar extension on intradiscal stresses: relevance to "McKenzie" physical therapy. *11th Conference of the ESB* (pp. 103), July 8-11-98, Toulouse, Francia.
- Adams, M.A.; Freeman, B.J.; Morrison, H.M.; Nelson, I. y Dolan, P. (1998b). Intervertebral disc decompression following endplate damage: middle-aged discs are affected most. *11th Conference of the ESB* (pp. 33), July 8-11-98, Toulouse, Francia.
- Adams, M.A.; Freeman, B.J.C.; Morrison, H.P.; Nelson, I.W. y Dolan, P. (2000a). Mechanical initiation of intervertebral disc degeneration. *Spine*, 25, 1625-1636.
- Adams, M.A.; May, S.; Freeman, B.J.; Morrison, H.P. y Dolan, P. (2000b). Effects of backward bending on lumbar intervertebral discs. Relevance to physical therapy treatments for low back pain. *Spine*, 25, 431-438.



- Aguado, X. (1995). *Educación postural de tareas cotidianas en la enseñanza primaria: una visión ergonómica*. Tesis Doctoral: Universidad de Barcelona.
- Aguado, X.; Riera, J. y Fernández, A. (2000). Educación postural en primaria. Propuesta de una metodología y ejemplo de una sesión. *APUNTS Educación Física y Deportes*, 59, 55-60.
- Alarcón, A. (1992). Alteraciones axiales del raquis y pelvis. Concepto y clasificación. En: F. Santonja y I. Martínez (Eds.). *Valoración Médico-deportiva del escolar* (pp. 195-205). Universidad de Murcia: Secretariado de Publicaciones.
- Alter, M.J. (1990). *Los estiramientos. Bases científicas y desarrollo de ejercicios*. Barcelona: Paidotribo.
- Alvarez del Villar, F. (1987). *La preparación física del fútbol basada en el atletismo*. Madrid: Gymnos.
- American College of Sports Medicine (1998). The recommended quantity and quality of exercise for developing and maintaining cardiorespiratory and muscular fitness and flexibility in healthy adults. *Medicine and Science in Sports and Exercise*, 30, 975-991.
- American College of Sports Medicine (1999). *Manual ACSM para la valoración y prescripción del ejercicio*. Paidotribo: Barcelona.
- American College of Sports Medicine (2002). Progression models in resistance training for healthy adults. *Medicine and Science in Sports and Exercise*, 34(2), 364-380.
- Anderson, J. (1980). The thoraco-lumbar spine. *Clinics in Rheumatic Diseases*, 8(3), 631-653.
- Anderson, B. (1984). *Estirándose*. Barcelona: Integral.
- Anderson, B.; Burke, E.; Pearl, B. (1995). *Estar en forma*. Barcelona: Integral.
- Anderson, G.B.; Murphy, R.W.; Ortengren, R. y Nachemson, A.L. (1979). The influence of backrest inclination and lumbar support on Lumbar lordosis. *Spine*, 4, 1, 42-58.
- Andersson, E.A.; Ma, Z. y Thorstensson, A. (1998). Relative EMG levels in training exercises for abdominal and hip flexor muscles. *Scandinavian Journal of Rehabilitation Medicine*, 30, 175-183.
- Andersson, E.A.; Nilsson, J.; Ma, Z. y Thorstensson, A. (1997). Abdominal and hip flexor muscle activation during various training exercises. *European Journal of Applied Physiology*, 75, 115-123.



- Andersson, E.A.; Oddsson, L.I.E.; Grundström, H.; Nilsson, J. y Thorstensson, A. (1996). EMG activities of the quadratus lumborum and erector spinae muscles during flexion-relaxation and other motor tasks. *Clinical Biomechanics*, 11(7), 392-400.
- Andreotti, L. y Mauri, A. (1989). *Atlas de semiología reumatológica. Columna vertebral*. Barcelona: Grass.
- Andújar, P.; Alonso, C. y Santonja, F. (1996). Tratamiento de la cortedad de isquiosurales. *Selección*, 5(1), 37-48.
- Andújar, P. y Santonja, F. (1996). Higiene postural en el escolar. En: V. Ferrer, L. Martínez y F. Santonja (Eds.). *Escalar, Medicina y Deporte* (pp. 342-367). Albacete: Diputación Provincial de Albacete.
- Arbinaga, F. y García, J.M. (2003). Motivación para el entrenamiento con pesas en gimnasios: un estudio piloto. *Revista Internacional de Medicina de las Ciencias de la Actividad Física y el Deporte*, 9 (<http://cdeporte.rediris.es/revista/revista9/artmotivacion.html>).
- Armstrong, T. y Glass, S.C. (1996). Motor unit recruitment of the pectoral muscle during incline and decline bench press exercise. *Medicine and Science in Sports and Exercise*, 28(5), 206.
- Arteaga, A.; García, C.; Ibáñez, T.; Pérez, J.; Ramos, J. y Carazo, I. (1995). Factores de riesgo del dolor lumbar mecánico. Revisión bibliográfica. *Rehabilitación*, 29 (2), 128-137.
- Asmussen, E. y Heeboll-Nielsen, K. (1959). Posture, mobility and strength of the back in boys, 7 to 16 years old. *Acta Orthopaedica Scandinavica*, 28, 174-189.
- Au, G.; Cook, J. y McGill, S.M. (2001). Spinal shrinkage during repetitive controlled torsional, flexion and lateral bend motion exertions. *Ergonomics*, 44(4), 373-381.
- Axler, C.T. y McGill, S.M. (1997). Low back loads over a variety of abdominal exercises: searching for the safest abdominal challenge. *Medicine and Science in Sports and Exercise*, 29 (6), 804-810.
- Bado, J. L. (1977). *Dorso Curvo*. Montevideo: Artecotor.
- Bagur, C. (1996). Orientaciones básicas para programas de ejercicio físico de ámbito no competitivo. En: J.R. Serra (Coord.). *Prescripción de ejercicio físico para la salud* (pp. 57-87). Barcelona: Paidotribo.
- Balius, R. (1976). La espondilolisis lumbar como atlopatía. *APUNTS Medicina Deportiva*, XIV(53), 45-52.



- Balius, R. (1997). Espondilolisis y espondiololistesis en deportistas. Factores pronóstico y una propuesta etiopatogénica. *APUNTS Medicina Deportiva*, 128, 5-13.
- Bandy, W.D. y Irion, J.M. (1994). The effect of time on static stretch on the flexibility of the hamstring muscles. *Physical Therapy*, 74 (9), 54-60.
- Bandy, W.D.; Irion, J.M. y Briggler, M. (1997). The effect of time and frequency of static stretching on flexibility of the hamstring muscles. *Physical Therapy*, 77(10), 1090-1096.
- Bandy, W.D.; Irion, J.M. y Briggler, M. (1998). The effect of static stretch and dynamic range of motion training on the flexibility of the hamstring muscles. *Journal of Orthopaedic and Sports Physical Therapy*, 27(4), 295-300.
- Barker, P.J. y Briggs, C.A. (1999). Attachments of the posterior layer of lumbar fascia. *Spine*, 24(17), 1757-1764.
- Barr, A.E. y Barde, M.F. (2002). Pathophysiological tissue changes associated with repetitive movement: a review of the evidence. *Physical Therapy*, 82(2), 173-187.
- Beattie, P. (1996). The relationship between symptoms and abnormal magnetic resonance images of lumbar intervertebral disks. *Physical Therapy*, 76, 601-608.
- Benson, M.E.; Smith, D.R. y Bybee, R.F. (2002). The muscle activation of the erector spinae during hyperextension with and without the pelvis restrained. *Physical Therapy in Sport*, 3, 165-174.
- Bergmark, A. (1989). Stability of the lumbar spine. A study in mechanical engineering. *Acta Orthopaedica Scandinavica*, 230, 1-54.
- Bertín, D. y Chick, H. (1988). Stretching et chirurgie de genou. *Annales de Kinésithérapie*, 15, 1-2, 15-16.
- Bixler, B. y Jones, R.L. (1992). High-school football injuries: effects of a post-halftime warm-up and stretching routine. *Family Practice Research Journal*, 12(2), 131-139.
- Bloom, W. y Fawcett, D. (1973). *Tratado de histología*. Buenos Aires: Labor.
- Boden, S.D.; Davis, T.S.; Dina, N.J.; Patronas, N.J. y Wiesel, S. (1990). Abnormal magnetic resonance scans of the lumbar spine in asymptomatic subjects. *The Journal of Bone and Joint Surgery British*, 72(3), 403-408.
- Bogduk, N.; Macintosh, J.E. y Pearcy, M.J. (1992). A universal model of the lumbar back muscles in the upright position. *Spine*, 17(8), 897-913.



- Boos, N.; Rieder, R.; Schade, V.; Spratt, K.F.; Semmer, N. y Aebi, M. (1995). The diagnostic accuracy of magnetic resonance imaging, work place perception, and psychosocial factors in identifying symptomatic disc herniations. *Spine*, 20(24), 2613-2625.
- Borms, J.; Van Roy, P.; Santens, J.P. y Haentjens, A. (1987). Optimal duration of static stretching exercises for improvement of coxo-femoral flexibility. *Journal of Sport Science*, 5, 39-47.
- Bortoluzzi, M. (1994). Lumbalgia y sedentarismo. *Sport & Medicina*, Mayo-Junio, 14-17.
- Botsford, D.J.; Esses, S.I. y Ogilvie-Harris, D.J. (1994). In vivo diurnal variation in intervertebral disc volume and morphology. *Spine*, 19(8), 935-940.
- Bouchard, C.; Shephard, R.J.; Stephens, T.; Sutton, J.R. y McPherson, B.D. (eds.) (1990). *Exercise, Fitness and health: a consencus of current knowledge*. Champaign: Human Kinetics.
- Bouley, P.J. (1998). Inter-tester reliability of sagittal range of motion of the lumbar spine. *The Journal of Orthopaedic and Sports Physical Therapy*, 27(1), 92.
- Brenke, H.; Dietrich, L. y Berthold, F. (1991). Entrenarse sin riesgos. *Revista de Entrenamiento Deportivo*, V(4), 32-38.
- Brereton, L.C. y McGill, S.M. (1999). Effects of physical fatigue and cognitive challenges on the potential for low back injury. *Human Movement Science*, 18, 839-857.
- Brill, P.A.; Macera, C.A.; Davis, D.R.; Balir, S.N. y Gordon, N. (2000). Muscular strength and physical function. *Medicine and Science in Sports and Exercise*, 31(2), 412.
- Burton, A.K.; Tillotson, K.M. y Boocock, M.G. (1994). Estimation of spinal loads in overhead work. *Ergonomics*, 37, 1311-1321.
- Cailliet, R. (1983). *Síndromes dolorosos. Hombro*. México: Manual Moderno.
- Cailliet, R. (1990). *Dorso*. México: Manual Moderno.
- Calais-Germain, B. y Lamotte, A. (1995). *Anatomía para el movimiento. Bases de ejercicios. Tomo II*. Barcelona: Los libros de la liebre de marzo.
- Callaghan, J.P. y Dunk, N.M. (2002). Examination of the flexion relaxation phenomenon in erector spinae muscles during short duration slumped sitting. *Clinical Biomechanics*, 17, 353-360.



- Callaghan, J.P.; Gunning, J.L. y McGill, S.M. (1998). The relationship between lumbar spine load and muscle activity during extensor exercises. *Physical Therapy*, 87, 8-18.
- Callaghan, J.P. y McGill, S.M. (1998). Time varying postures, muscular activity, and low back joint loading during unsupported sitting. En: *North American Congress on Biomechanics*, 14-18 Agosto, Waterloo, Ontario, Canada.
- Callaghan, J.P. y McGill, S.M. (1995). Muscle activity and low back loads under external shear and compressive loading. *Spine*, 20(9), 992-998.
- Callaghan, J.P. y McGill, S.M. (2001a). Intervertebral disk herniation: Studies on a porcine model exposed to highly repetitive flexion/extension motion with compressive force. *Clinical Biomechanics*, 16(1), 28-37.
- Callaghan, J.P. y McGill, S.M. (2001b). Low back joint loading and kinematics during standing and unsupported sitting. *Ergonomics*, 44(3), 280-294.
- Carpenter, D.M. y Nelson, B.W. (1999). Low back strengthening for the prevention and treatment of low back pain. *Medicine and Science in Sports and Exercise*, 31(1), 18-24.
- Carpinelli, R.N. y Otto, R.M. (1998). Strength training: single versus multiple sets. *Sports Medicine*, 26, 73-84.
- Casimiro, A.J. (1999). *Comparación, evolución y relación de hábitos saludables y nivel de condición física-salud en escolares, al finalizar los estudios de Educación Primaria (12 años) y de Educación Secundaria Obligatoria (16 años)*. Tesis Doctoral. Universidad de Granada.
- Cassinelli, E.H.; Hall, R.A. y Kang, J.D. (2001). Biochemistry of intervertebral disc degeneration and the potential for gene therapy applications. *The Spine Journal*, 1, 205-214.
- Caspersen, C. J.; Powell, K. E. y Christenson, G. M. (1985). Physical Activity, exercise and physical fitness: Definition and distinction for health-related research. *Public Health Reports*, 100-2, 126-131.
- Chen, S.C.; Samo, D.G.; Chen, E.H.; Crampton, A.R.; Conrad, K.M.; Egan, L. y Mitton, J. (1997). Reliability of three lumbar sagittal motion measurement methods: surface inclinometers. *Journal of Occupational and Environmental Medicine*, 39(3), 217-223.
- Chen, T.C. y Hsieh, S.S. (1996). The effects of stretching and cryotherapy on delayed onset muscle soreness. *Medicine and Science in Sports and Exercise*, 28(5)Suppl, 181.



- Chiang, J. y Potvin, J.R. (2001). The in vivo dynamic response of the human spine to rapid lateral perturbation, effects of preload and step input magnitude. *Spine*, 26(13), 1457-1464.
- Cholewicki, J.; Juluru, K.; Panjabi, M.M.; Radebold, A. y McGill, S.M. (1998). Can an abdominal belt and/or intra-abdominal pressure increase spine stability?. *North American Congress on Biomechanics*. Waterloo, 14-18 Agosto.
- Cholewicki, J.; Juluru, K. y McGill, S.M. (1999a). Intra-abdominal pressure mechanism for stabilizing the lumbar spine. *Journal of Biomechanics*, 32, 13-17.
- Cholewicki, J.; Juluru, K.; Radebold, A.; Panjabi, M.M. y McGill, S.M. (1999b). Lumbar spine stability can be augmented with an abdominal belt and/or increased intra-abdominal pressure. *European Spine Journal*, 8(5), 388-395.
- Cholewicki, J. y McGill, S.M. (1992). Lumbar posterior ligament involvement during extremely heavy lifts estimated from fluoroscopic measurements. *Journal of Biomechanics*, 25(1), 17-28.
- Cholewicki, J. y McGill, S.M. (1996). Mechanical stability of the in vivo lumbar spine: implications for injury and chronic low back pain. *Clinical Biomechanics*, 11(1), 1-15.
- Cholewicki, J.; McGill, S.M. y Norman, R.W. (1991). Lumbar spine loads during the lifting of extremely heavy weights. *Medicine and Science in Sports and Exercise*, 23(10), 1179-1186.
- Cholewicki, J.; McGill, S.M. y Norman, R. (1995). Comparison of muscle forces and joint load from an optimization and EMG assisted lumbar spine model: towards development of a hybrid approach. *Journal of Biomechanics*, 28(3), 321-331.
- Cholewicki, J.; Panjabi, M.M. y Khachatrian, A. (1997). Stabilizing function of trunk flexor-extensor muscles around a neutral spine posture. *Spine*, 22, 2207-2212.
- Cholewicki, J. y Van Vliet, J.J. (2002). Relative contribution of trunk muscles to the stability of the lumbar spine during isometric exertions. *Clinical Biomechanics*, 17, 99-105.
- Chopin, D. y David, T. (1989). Cyphoses pathologiques, *Encycl. Méd. Chir. Appareil Locomoteur*, 15872, A10, 10.
- Christie, H.J.; Kumar, S. y Warren, S.A. (1995). Postural aberrations in low back pain. *Archives of Physical Medicine Rehabilitation*, 76, 218-224.



- Colado, J.C. (1996). *Fitness en las salas de musculación*. Barcelona: INDE.
- Colado, J.C. y Moreno, J.A. (2001). Fitness acuático. Barcelona: INDE.
- Commandre, F.A.; Argenson, C.; Fornaris, E.; Aboulker, C.; Peretti, F. y Zakarian, H. (1991). Lumbar spine, sport and actual treatment. *The Journal of Sports Medicine and Physical Fitness*, 31(2), 129-134.
- Congeni, J.; McCulloch, J. y Swanson, K. (1997). Lumbar Spondylolysis. A study of natural progression in athletes. *The American Journal of Sports Medicine*, 25(2), 248-253.
- Contreras, M.J.; Miranda, J.L.; Ordóñez, M.F.; Miranda, M. y Diez, F. (1981). Semiología del dorso curvo juvenil. En: Jornada Monográfica vertebral. Madrid, Servicio de Rehabilitación, Hospital La Paz.
- Cornelius, W.L.; Ebrahim, K.; Watson, J. y Hill, D.W. (1992). The effects of cold application and modified PNF stretching techniques on hip joint flexibility in college males. *Research Quarterly for Exercise and Sport*, 63(3), 311-314.
- Coulomb, Y.; Abrahamik, A.; Roman, F.; Combes, Th. y Piera, J.B. (1995). Que peut-on attendre des techniques de gain d'amplitud articulaire chez la personne âgée? *Annales de Kinésithérapie*, 22, 6, 249-252.
- Court, C.; Colliou, O.K.; Chin, J.R.; Liebenberg, E.; Bradford, D.S. y Lotz, J.C. (2001). The effect of static in vivo bending on the murine intervertebral disc. *The Spine Journal*, 1, 239-245.
- Craig, B.W.; Everhart, J. y Brown, R. (1989). The influence of high resistance training on glucose tolerance in young and elderly subjects. *Mechanisms of Ageing and Development*, 49(2), 147-157.
- Crespo, M.A. y Martín, C. (1994). Afecciones traumáticas del deporte en los niños. Lesiones por uso y esfuerzo excesivo. *Archivos de Medicina del Deporte*, 42, 153-144.
- Cuadrado, R.; López, T. y Reñones, B. (1993). Higiene postural en la etapa escolar. *Fisioterapia*, 15(3), 97-126.
- Cureton, K.J.; Mitchell, A.C.; Hill, D.W. y McElhannon, F.M. (1988). Muscle hypertrophy in men and women. *Medicine and Science in Sports Exercise*, 20(4), 338-344.
- Cureton, T.K. (1990). Physical activity, exercise, and physical fitness: definitions. En: D.C. Nieman (Coord.). *Fitness and Sports Medicine. An introduction* (pp. 27-39). California: Bull Publishing Company.
- D'Osualdo, F.; Chierano, S. y Iannis, M. (1997). Validation of clinical measurement of kyphosis with a simple instrument, the arcometer. *Spine*, 22(4), 408-413.



- Dacko, A. y Dickey, J.P. (1998). Investigation of flexion-relaxation in weight-training subjects. En: *North American Congress on Biomechanics*, 14-18 Agosto, Waterloo, Ontario, Canada.
- Davis, K.G. y Marras, W.S. (2000). The effects of motion on trunk biomechanics. *Clinical Biomechanics*, 15, 703-717.
- Davis, K.G.; Marras, W.S. y Waters, T.R. (1998). Evaluation of spinal loading during lowering and lifting. *Clinical Biomechanics*, 13(3), 141-152.
- De Looze, M.P.; Groen, H.; Horemans, H.; Kingma, I. y Van Dieën, J.H. (1999). Abdominal muscles contribute in a minor way to peak spinal compression in lifting. *Journal of Biomechanics*, 32, 655-662.
- De Vries, H.A. (1962). Evaluation of static stretching procedures for improvement of flexibility. *Research Quarterly for Exercise and Sport*, 33, 2, 222-229.
- Debrunner, H. U. (1972). Das Kyphometer. *Zeitschrift fuer Orthopaedic un Ihre Grenzgebiete*, 110, 389-392.
- Delavier, F. (1995). *Guia de los movimientos de musculación. Descripción Anatómica*. Barcelona: Paidotribo.
- Delgado, M. (1996). Actividad física para la salud en educación primaria. En C. Romero; D. Linares y E. de la Torre (Eds.). *Estrategias metodológicas para el aprendizaje de los contenidos de la educación física escolar* (pp. 137-146). Granada: Promeco.
- Delgado, M.; Gutiérrez, A. y Castillo, M.J. (1997). *Entrenamiento físico-deportivo y alimentación. De la infancia a la edad adulta*. Barcelona: Paidotribo.
- Delitto, R.S. y Rose, S.J. (1992). An electromyographic analysis of two techniques for squat lifting and lowering. *Physical Therapy*, 72(6), 438-448.
- Devís, J. y Peiró, C. (1993). La actividad física y la promoción de la salud en niños/as y jóvenes: la escuela y la Educación Física. *Revista de Psicología del Deporte*, 4, 71-86.
- Doers, T.M. y Kang, J.D. (1999). The biomechanics and biochemistry of disc degeneration. *Current Opinion in Orthopedics*, 10(2), 117-121.
- Dolan, P. y Adams, M.A. (1993). The relationship between EMG activity and extensor moment generation in the erector spinae muscles during bending and lifting activities. *Journal of Biomechanics*, 26(4/5), 513-522.



- Dolan, P. y Adams, M.A. (1998). Repetitive lifting tasks fatigue the back muscles and increase the bending moment acting on the lumbar spine. *Journal of Biomechanics*, 31, 713-721.
- Dolan, P. y Adams, P. (2001). Recent advances in lumbar spinal mechanics and their significance for modelling. *Clinical Biomechanics*, 1, S8-S16.
- Dolan, P.; Earley, M. y Adams, M.A. (1994). Bending and compressive stresses acting on the lumbar spine during lifting activities. *Journal of Biomechanics*, 27(10), 1237-1248.
- Domisse, G. F. (1990). The vulnerable, rapidly growing thoracic spine of the adolescent. *South African Medical Journal*, 78, 4, 211-213.
- Dorado, C.; Dorado, N. y Sanchís, J. (2001). *Abdominales. Para un trabajo muscular abdominal más seguro y eficaz*. Barcelona: Paidotribo.
- Draganich, L.F.; Jaeger, R.J. y Kralj, A.R. (1989). Coactivation of the hamstrings and quadriceps during extension of the knee. *The Journal of Bone and Joint Surgery*, 71(7), 1075-1081.
- Drezner, J.A. y Herring, S.A. (2001). Exercises in the treatment of low-back pain. *The Physician and Sportsmedicine*, 29(8).
- Dubreuil, C. y Neiger, H. (1984). Comparaison des effets de la course et des étirements autopassifs sur l'extensibilité des ischio-jambiers. *Annales de Kinésithérapie*, 11, 5, 191-195.
- Dunham, W. (1949). Ankylosing spondylitis-measurement of hip and spine movement. *British Journal of Physical Medicine*, 12, 126.
- Duplessis, D.H.; Greenway, E.H.; Keene, K.L.; Lee, I.E.; Clayton, R.L.; Metzler, T. y Inderwood, F.B. (1998). Effect of semi-rigid lumbosacral orthosis use on oxygen consumption during repetitive stoop and squat lifting. *Ergonomics*, 41(6), 790-797.
- Ebenbichler, G.R.; Oddsson, L.I.; Kollmitzer, J. y Erim, Z. (2001). Sensory-motor control of the lower back: implications for rehabilitation. *Medicine and Science in Sports and Exercise*, 33(11), 1889-1898.
- Ebraheim, N.A.; Lu, J.; Hao, Y.; Biyani, A. y Yeasting, R.A. (1997). Anatomic Considerations of the lumbar isthmus. *Spine*, 22, 941-945.
- Einsingbach, Th.; Klümper, A. y Bledermann, L. (1989). *Fisioterapia y rehabilitación en el deporte*. Madrid: Scriba.
- Elliott, B. y Khangure, M. (2002). Disk degeneration and fast bowling in cricket: an intervention study. *Medicine and Science in Sports and Exercise*, 34(11), 1714-1718.



- Ensink, F.M.; Saur, P.M.; Frese, K.; Seeger, D. y Hildebrandt, J. (1996). Lumbar range of motion: influence of time of day and individual factors on measurements. *Spine*, 21(11), 1339-1343.
- Escamilla, R.F. (2001). Knee biomechanics of the dynamic squat exercise. *Medicine and Science in Sports and Exercise*, 33(1), 127-141.
- Escamilla, R.F.; Fleisig, G.S.; Zheng, N.; Barrentine, S.W.; Wilk, K.E. y Andrews, J.R. (1998). Biomechanics of the knee during closed kinetic chain and open kinetic chain exercises. *Medicine and Science in Sports and Exercise*, 30(4), 556-569.
- Esnault, M. (1988c). Effects recherches du stretching (étirements musculaires actifs) en thérapie et en milieu sportif. *Annales de Kinésithérapie*, 15, 1-2, 63-66.
- Esnault, M. (1988d). Deux notions distinctes dans l' étirement musculaire de type Stretching: la tension passive et la tension active. *Annales de Kinésithérapie*, 15, 1-2, 69-70.
- Esnault, M. (1988b). Place de l'entrenaîment à base d'étirements actifs myotendineux et aponéurotiques "stretching". Rééducation des sportifs. *Annales de Kinésithérapie*, 15, 1-2, 17-39.
- Esnault, M. (1988a). Que peut-on attendre du stretching en milieu sportif (kinésithérapie du sport). *Annales de Kinésithérapie*, 15, 1-2, 67-68.
- Esola, M.A.; McClure, P.W.; Fitzgerald, G.K. y Siegler, S. (1996). Analysis of lumbar spine and hip motion during forward bending in subjects with and without a history of low back pain. *Spine*, 21(1), 71-78.
- Evans, R. (2000). Effects of warm-up prior to eccentric exercise on indirect markers of muscle damage. *Tesis Doctoral*. Universidad de Brigham Young.
- Evans, R.K.; Knight, K.L.; Draper, D.O. y Parcell, A.C. (2002). Effects of warm-up before eccentric exercise on indirect markers of muscle damage. *Medicine and Science in Sports and Exercise*, 34(12), 1892-1899.
- Eyzaguirre, C. (1977). *Fisiología del Sistema Nervioso*. Buenos Aires: Panamericana.
- Fees, M.; Decker, T.; Snyder-Mackler y Axe, M.J. (1998). Upper extremity weight-training modifications for the injured athlete. A clinical perspective. *The American Journal of Sports Medicine*, 26(6), 732-742.
- Feigenbaum, M.S. y Pollock, M.L. (1997). Strength training: rationale for current guidelines for adult fitness programs. *The Physician and Sportsmedicine*, 25(2), 44-64.



- Feigenbaum, M.S. y Pollock, M.L. (1999). Prescription of resistance training for health and disease. *Medicine and Science in Sports and Exercise*, 31, 38-45.
- Feland, J.B.; Myrer, J.W.; Schulthies, S.S.; Fellingham, G.W. y Measom, G.W. (2001). The effect of duration of stretching of the hamstring muscle group for increasing range of motion in people aged 65 years or older. *Physical Therapy*, 81(5), 1110-1117.
- Fennell, A.J.; Jones, A.P. y Hukins, D.W. (1996). Migration of the nucleus pulposus within the intervertebral disc during flexion and extension of the spine. *Spine*, 21, 2753-2757.
- Ferrer, V. (1998). Repercusiones de la cortedad isquiosural sobre la pelvis y el raquis lumbar. *Tesis Doctoral*. Universidad de Murcia.
- Ferrer, V.; Santonja, F. y Carrión, M. (1996). Síndrome de isquiosurales cortos y actividad física. En: V. Ferrer, L. Martínez y F. Santonja (Coords.). *Escolar: Medicina y Deporte* (pp. 283-296). Albacete: Diputación Provincial de Albacete.
- Ferret, J. M.; Mathieu, R.; Videman, R. y Seiller, M. (1990). Intérêts et limites des étirements chez l'enfant et l'adolescent footballeur. *Annales de Kinésithérapie*, 17, 6, 305-308.
- Fon, G.T.; Pitt, M.J. y Thies, A.C. (1980). Thoracic kyphosis: range in normal subjects. *American Journal of Roentgenology*, 134, 979-983.
- Fox, K. (1993). Exercise and the Promotin of Public Health: More Messages for the Mission. *The British Journal of Physical Education*, 24 (3), 36-37.
- Fox, R. y Van Breemer, J. (1934). *Journal Chronic Reumatism-Causation and treatment*. London: Churchill.
- Fradkin, A.J.; Finch, C.F. y Sherman, C.A. (2001). Warm-up practices of golfers: are they adequate?. *British Journal of Sports Medicine*, 35, 125-127.
- Fransen, M.; Woodward, M.; Norton, R.; Coggan, C.; Dawe, M. y Sheridan, N. (2002). Risk factors associated with the transition from acute to chronic occupational back pain. *Spine*, 27(1), 92-98.
- Freivalds, A.; Chaffin, D.B.; Garg, A. y Lee, K.S. (1984). A dynamic biomechanical evaluation of lifting maximum acceptable loads. *Journal of Biomechanics*, 17(4), 251-262.
- Fritz, J.M.; Erhard, R. y Hagen, B. (1998). Segmental instability of the lumbar spine. *Physical Therapy*, 78, 889-896.



- Gagnon, D.; Larivière, C.; Ghorbal, A. y Loisel, P. (1998). Using optimization and EMG-assisted optimization lumbar spine models to contrast trunk muscle strategies. *North American Congress on Biomechanics*. Waterloo, 14-18 Agosto.
- Gagnon, D.; Larivière, C. y Loisel, P. (2001). Comparative ability of EMG, optimization, and hybrid modelling approaches to predict trunk muscle forces and lumbar spine loading during dynamic sagittal plane lifting. *Clinical Biomechanics*, 16, 359-372.
- Garcés, G. (1994). Espondilosis y espondilolistesis en el deporte. *Archivos de Medicina del Deporte*, XI(42), 181-186.
- Garcés, G. (1996). Patología de la charnela lumbosacra y deporte. En: Ferrer, V.; Martínez, L.; Santonja, F. (Coords.). *Escolar: Medicina y Deporte* (pp.269-280). Albacete: Diputación Provincial de Albacete.
- García Ferrando, M. (1997). *Los españoles y el Deporte 1980-1995 (Un estudio sociológico sobre comportamientos, actitudes y valores)*. Madrid: Consejo Superior de Deportes.
- García Ferrando, M. (2001). *Los españoles y el deporte: prácticas y comportamientos en la última década del siglo XX. Encuesta sobre los hábitos deportivos de los españoles, 2000*. Madrid: Consejo Superior de Deportes.
- García Montes, M.E. (1997). Actitudes y comportamientos de la mujer granadina ante la práctica física de tiempo libre. *Tesis Doctoral*, Universidad de Granada.
- García, J.L. (1994). La práctica durante la infancia y la adolescencia. Principios fisiológicos y consejos médicos. *Apuntes de salud pública*, 8, 3-8.
- García, J.M.; Vázquez, I. y Hernández, R. (2001a) Bases de la musculación del miembro superior. Parte I: la flexión del codo. *Revista de Entrenamiento Deportivo*, XV(4), 19-28.
- García, J.M.; Vázquez, I. y Hernández, R. (2001b) Bases de la musculación del miembro superior. Parte II: la extensión del codo. *Revista de Entrenamiento Deportivo*, XV(4), 29-35.
- Gardner, M.G. y Stokes, A.F. (1998). The effects of abdominal muscle coactivation on lumbar spine stability. *Spine*, 23, 86-91.
- Gardner-Morse, M.; Stokes, I.A. y Laible, J.P. (1995). Role of muscles in lumbar stability in maximum extension efforts. *Journal of Orthopaedic Research*, 13(5), 802-808.



- Garrett, W.E. (1996). Muscle strain injuries. *American Journal of Sports Medicine*, 24(6 Suppl), S2-S8.
- Gatton, M.L. y Pearcy, M.J. (1999). Kinematics and movement sequencing during flexion of the lumbar spine. *Clinical Biomechanics*, 14, 376-383.
- Gedalia, U.; Solomonow, M.; Zhou, B.; Baratta, R.V.; Lu, Y. y Harris, M. (1999). Biomechanics of increased exposure to lumbar injury caused by cyclic loading: part 2. Recovery of reflexive muscular stability with rest. *Spine*, 24(23), 2462-2472.
- George, J.D.; Fisher, A.G. y Vehrs, P.R. (1994). *Tests y pruebas físicas*. Barcelona: Paidotribo.
- Gianceli, D.C. (1985). Física. principios y aplicaciones. Barcelona: Reverté.
- Gill, D.L. (1996). Quality of Life: Through Movement, Health, and Fitness. *Quest*, 48 (3), 245.
- Gill, K.P. y Callaghan, M.J. (1998). The measurement of lumbar proprioception in individuals with and without low back pain. *Spine*, 23(3), 371-377.
- Glass, S.C. y Satanton, D.R. (1998). Self-selected weight training intensity among untrained men and women. *Medicine and Science in Sports and Exercise*, 30(5), 214.
- Gleim, G.W. y McHugh, M.P. (1997). Flexibility and its effects on sports injury and performance. *Sports Medicine*, 24(5), 289-299.
- Goh, S.; Price, R.I.; Leedman, P.J. y Singer, K.P. (2000). A comparison of three methods for measuring thoracic kyphosis: implications for clinical studies. *Rheumatology*, 39, 310-315.
- Goldish, G.D.; Quast, J.E.; Blow, J.J. y Kuskowski, M.A. (1994). Postural effects on intra-abdominal pressure during Valsalva maneuver. *Archives of Physical Medicine and Rehabilitation*, 75, 324-327.
- Gracovetsky, S.; Kary, M.; Levy, S.; Ben Said, R.; Pitchen, I. y Hélie, J. (1990). Analysis of spinal and muscular activity during flexion/extension and free lifts. *Spine*, 15, 1333-1339.
- Granata, K.P. (1998). Structural injury tolerance of the spine: stability and lumbar lordosis in lifting. En: *North American Congress on Biomechanics*, 14-18 Agosto, Waterloo, Ontario, Canada.
- Granata, K.P. y Marras, W.S. (1995). The influence of trunk muscle coactivity on dynamic spinal loads. *Spine*, 20(8), 913-919.



- Granata, K.P. y Marras, W.S. (1999). Relation between spinal load factors and the high risk probability of occupational low back disorder. *Ergonomics*, 42(9), 1187-1199.
- Granata, K.P.; Marras, W.S. y Davis, K.G. (1999). Variation in spinal load and trunk dynamics during repeated lifting exertions. *Clinical Biomechanics*, 14, 367-375.
- Granata, K.P.; Marras, W.S. y Davis, K.G. (1997). Biomechanical assessment of lifting dynamics, muscle activity and spinal loads while using three different styles of lifting belt. *Clinical Biomechanics*, 12(2), 107-115.
- Granata, K.P. y Sanford, A.H. (2000). Lumbar pelvic coordination is influenced by lifting task parameters. *Spine*, 25(11), 1413-1418.
- Granata, K.P. y Wilson, S.E. (2001). Trunk posture and spinal stability. *Clinical Biomechanics*, 16(8), 650-659.
- Graves, J.E.; Pollock, M.L.; Leggett, S.H.; Carpenter, D.M.; Fix, C.K. y Fulton, M.N. (1992). Limited range-of-motion lumbar extension strength training. *Medicine and Science in Sports and Exercise*, 24(1), 128-133.
- Graves, J.E.; Webb, D.C.; Pollock, M.L.; Matkozich, J.; Leggett, S.H.; Carpenter, D.M.; Foster, D.N. y Cirulli, J. (1994). Pelvic stabilization during resistance training: its effect on the development of lumbar extension strength. *Archives of Physical Medicine and Rehabilitation*, 75, 210-215.
- Gray, S.C.; Devito, G. y Nimmo, M.A. (2002). Effect of active warm-up on metabolism prior to and during intense dynamic exercise. *Medicine and Science in Sports and Exercise*, 34(12), 2091-2096.
- Green, J.P.; Grenier, S.G. y McGill, S.M. (2002). Low back stiffness is altered with warm-up and bench rest: implications for athletes. *Medicine and Science in Sports and Exercise*, 34(7), 1076-1081.
- Grenier, S.G. (2002). Stabilization strategies of the lumbar spine in vivo. Tesis Doctoral. Universidad de Waterloo: Ontario.
- Grosser, M.; Starischka, S. y Zimmermann, E. (1988). Principios del entrenamiento deportivo. Barcelona: Martínez Roca.
- Guimaraes, A.C.; Vaz, M.A.; De Campos, M.I. y Marantes, R. (1991). The contribution of the abdominis and rectus femoris in twelve selected abdominal exercises. An electromyographic study. *The Journal of Sports Medicine and Physical Fitness*, 31, 222-230, 1991.
- Guissard, N.; Duchateau, K. y Hainaut, K. (1988). Le stretching musculaire: aspects neurophysiologiques et biomécaniques. *Annales de Kinésithérapie*, 15, 10, 469-474.



- Gunning, J.L.; Callaghan, J.P. y McGill, S.M. (2001). Spinal posture and prior loading history modulate compressive strength and type of failure in the spine: a biomechanical study using a porcine cervical spine model. *Clinical Biomechanics*, 16(6), 471-480.
- Gupta, A. (2001). Analyses of myo-electrical silence of erectors spinae. *Journal of Biomechanics*, 34, 491-496.
- Gusi, N. y Fuentes, J.P. (1996). Análisis de la influencia del ritmo de ejecución en el trabajo de fuerza-resistencia abdominal: encorvadas. *APUNTS Educación Física y Deportes*, 58, 58-61.
- Gutiérrez, A. (2000). La intensidad del ejercicio: factor crítico entre la salud y la enfermedad. En: F. Salinas (Coord.). *La actividad física y su práctica orientada hacia la salud* (pp. 51-57). Granada: CSI-CSIF.
- Hagen, K.B.; Hallen, J. y Harms-Ringdahl, K. (1993). Physiological and subjective responses to maximal repetitive lifting employing stoop and squat technique. *European Journal of Applied Physiology and Occupational Physiology*, 67(4), 291-297.
- Hagen, K.B. y Harms-Ringdahl, K. (1994). Ratings of perceived thigh and back exertion in forest workers during repetitive lifting using squat and stoop techniques. *Spine*, 19(22), 2511-2517.
- Hagron, E. (1995). La mobilisation passive articulaire. Évaluation des limitations et des gains d'amplitude. *Annales de Kinésithérapie*, 21, 8, 429-433.
- Halbertsma, J.P. y Goeken, L.N. (1994). Stretching exercises: effect on passive extensibility and stiffness in short hamstrings. *Archives of Physical Medicine and Rehabilitation*, 75(9), 976-981.
- Hale, B.S. y Raglin, J.S. (2002). State anxiety responses to acute resistance training and step aerobic exercise across 8-weeks of training. *Journal of Sports Medicine and Physical Fitness*, 42(1), 108-112.
- Hall, S.J. (1985). Effect of attempted lifting speed on forces and torque exerted on the lumbar spine. *Medicine and Science in Sports and Exercise*, 17(4), 440-444.
- Hall, S.J. (1986). Mechanical contribution to lumbar stress injuries in female gymnasts. *Medicine and Science in Sports and Exercise*, 18(6), 599-602.
- Ham, A.W. (1977). *Tratado de histología*. Madrid: Interamericana.
- Hamill, J. y Knutzen, K.M. (1995). *Biomechanical basic of human movement*. Philadelphia: Lippincott Williams & Wilkins.



- Harman, E.A.; Rosenstein, R.M.; Frykman, P.N. y Nigro, G.A. (1989). Effects of a belt on intra-abdominal pressure during weight lifting. *Medicine and Science in Sports and Exercise*, 21(2), 186-190.
- Hart, D.L. y Rose, S.J. (1986). Reliability of noninvasive method of measuring the lumbar curve. *Journal of Orthopaedic and Sports Physical Therapy*, 8, 180-184.
- Hart, D.L.; Stobbe, T.J. y Jaraiedi, M. (1987). Effect of lumbar posture on lifting. *Spine*, 12, 138-145.
- Hass, C.J.; Feigenbaum, M. y Franklin, B.A. (2001). Prescription of resistance training for healthy populations. *Sports Medicine*, 31(14), 953-964.
- Hass, C.J.; Garzarella, L.; De Hoyos, D. y Pollock, M.L. (2000). Single versus multiple sets in long-term recreational weightlifters. *Medicine and Science in Sports and Exercise*, 32(1), 235.
- Hattin, H.C.; Pierrynowski, M.R. y Ball, K.A. (1989). Effect of load, cadence, and fatigue on tibio-femoral joint force during a half squat. *Medicine and Science in Sports and Exercise*, 21(5), 613-618.
- Heck, J.F. y Sparano, J.M. (2000). A classification system for the assessment of lumbar pain in athletes. *Athletic training*, 35(2), 204-211.
- Hedman, T.P. y Fernie, G.R. (1997). Mechanical response of the lumbar spine to seated postural loads. *Spine*, 22(7), 734-743.
- Hellín, P. (2003). Hábitos físico-deportivos en la Región de Murcia: Implicaciones para la elaboración del currículum en el ciclo formativo de Actividades Físico-Deportivas. *Tesis Doctoral*. Universidad de Murcia.
- Hellsing, A.L. (1988). Tightness of hamstring and psoas major muscles. A prospective study of back in young men during their military service. *Upsala Journal of Medicine Science*, 93(3), 267-276.
- Hernández, R. (1989). *Morfología funcional deportiva*. Barcelona: Paidotribo.
- Hernández, R.; García, J.M.; Tous, J.; Ortega, F.; Vega, F. y Gallud, I. (2001). Actividad electromiográfica del músculo pectoral mayor en los movimientos de press de banca inclinado y declinado respecto al press de banca horizontal. *APUNTS Medicina del Deporte*, 136, 15-22.
- Hides, J.A.; Jull, G.A. y Richardson, C.A. (2001). Long term effects of specific stabilizing exercises for first episode low back pain. *Spine*, 26(11), 243-248.
- Hides, J.A.; Richardson, C.A. y Gwendolen, A. (1996). Multifidus muscle recovery is not automatic after resolution of acute, first-episode low back pain. *Spine*, 21(23), 2763-2769.



- High, D.M.; Howley, E.T. y Franks, B.D. (1989). The effects of static stretching and warm-up on prevention of delayed onset muscle soreness. *Research Quarterly for Exercise and Sport*, 60(4), 357-361.
- Hindle, R.J. y Pearcy, M.J. (1989). Rotational mobility of the human back in forward flexion. *Journal of Biomedical England*, 11, 219-223.
- Hindle, R.J.; Pearcy, M.J. y Cross, A. (1990). Mechanical function of the human lumbar interspinous and supraspinous ligaments. *Journal of Biomedical England*, 12(4), 340-344.
- Hodges, P.W. (2001 a). Changes in motor planning of feedforward postural responses of the trunk muscles in low back pain. *Experimental Brain Research*, 141(2), 261-266.
- Hodges, P.W.; Cresswell, A.G.; Daggfeldt, K. y Thorstensson, A. (2001). In vivo measurement of the effect of intra-abdominal pressure on the human spine. *Journal of Biomechanics*, 34(3), 347-353.
- Hodges, P.W. y Richardson, C.A. (1996). Inefficient muscular stabilization of the lumbar spine associated with low back pain. *Spine*, 21(22), 2640-2650.
- Hodges, P.W. y Richardson, C.A. (1997a). Contraction of the abdominal muscles associated with movement of the lower limb. *Physical Therapy*, 77(2), 132-144.
- Hodges, P.W. y Richardson, C.A. (1997b). Relationship between limb movement speed and associated contraction of the trunk muscles. *Ergonomics*, 40(11), 1220-1230.
- Hodges, P.W. y Richardson, C.A. (1997c). Feedforward contraction of transversus abdominis is not influenced by the direction of arm movement. *Experimental Brain Research*, 114(2), 362-370.
- Hodges, P.W. y Richardson, C.A. (1999a). Transversus abdominis and the superficial abdominal muscles are controlled independently in a postural task. *Neuroscience Letters*, 265(2), 91-94.
- Hodges, P.W. y Richardson, C.A. (1999b). Altered trunk muscle recruitment in people with low back pain with upper limb movement at different speeds. *Archives of Physical Medicine and Rehabilitation*, 80(9). 1005-1012.
- Hoeger, W.K. y Hopkins, D.R. (1992). A comparison of the sit and reach and the modified sit and reach in the measurement of flexibility in women. *Research Quarterly for Exercise and Sport*, 63(2), 191-195.
- Holmes, J.A.; Damaser, M.S. y Lehman, S.L. (1992). Erector spinae activation and movement dynamics about the lumbar spine in lordotic and kyphotic squat lifting. *Spine*, 17(3), 327-334.



- Houmard, J.A.; Johns, R.A.; Smith, L.L.; Wells, J.M.; Kobe, R.W. y McGoogar, S.A. (1991). The effect of warm-up on responses to intense exercise. *International Journal of Sports Medicine*, 12(5), 480-483.
- Howley, E. y Franks, B. (1995). *Manual del técnico en salud y fitness*. Barcelona: Paidotribo.
- Huang, Q.M.; Andersson, E. y Thorstensson, A. (2001). Intramuscular myoelectric activity and selective coactivation of trunk muscles during lateral flexion with and without load. *Spine*, 26, 1465-1472.
- Hutchinson, G. E.; Freedson, P. S.; Ward, A. y Rippe, J. (1990). Ideal to Real-Implementing a Youth Fitness Program. *Journal of Physical Education, Recreation and Dance*, Agosto, 52-58.
- Iatridis, J.C.; Weidenbaum, M.; Setton, L.A. y Mow, V.C. (1996). Is the nucleus pulposus a solid or a fluid?. Mechanical behaviors of the nucleus pulposus of the human intervertebral disc. *Spine*, 21(10), 1174-1184.
- Ibáñez, T.; Carazo, I. y Ramos, V. (1993). *Escuela de la espalda. Rehabilitación*, 27, 377-427.
- Iida, T.; Abumi, K.; Kotani, Y. y Kaneda, K. (2002). Effects of aging and spinal degeneration on mechanical properties of lumbar supraspinous and interspinous ligaments. *The Spine Journal*, 2, 95-100.
- Ikata, T.; Miyake, R.; Katoh, S.; Morita, T. y Murase, M. (1996). Pathogenesis of Sports-related Spondylolisthesis in adolescents. *The American Journal of Sports Medicine*, 24(1), 94-98.
- Inaoka, M.; Yamazaki, Y.; Hosono, N.; Tada, K. y Yonenobu, K. (2000). Radiographic analysis of lumbar spine for low back pain in the general population. *Arch Orthop Trauma Surg*, 120, 380-385.
- Indian Council of Medical Research (ICMR) (2000). Ergonomics in manual materials handling tasks. *ICMR Bulletin*, 30(8).
- Instituto Biomecánico de Valencia (IBV) (1994). Dolor de espalda. Biomecánica. *Cuadernos de información*, 4, 4-6.
- Isear, J.A.; Erickson, J.C. y Worrell, T.W. (1997). EMG analysis of lower extremity muscle recruitment patterns during an unloaded squat. *Medicine and Science in Sports and Exercise*, 29(4), 532-539.
- Jackson, A. y Langford, N.J. (1989). The criterion-related validity of the sit and reach test replication and extension of previous findings. *Research Quarterly for Exercise and Sport*, 60(4), 384-387.



- Jackson, J.; Solomonow, M.; Zhou, B.; Baratta, R.V. y Harris, M. (2001). Multifidus EMG and tension-relaxation recovery after prolonged static lumbar flexion. *Spine*, 26(7), 715-723.
- Jacobs, I. (1976). Neurophysiological implications of slow, active stretching. *The American Corrective Therapy Journal*, 30, 8, 151-154.
- Jiang, H.; Russell, G.; Raso, V.J.; Moreau, M.J.; Hill, D.L. y Bagnall, K.M. (1995). The nature and distribution of the innervation of human supraspinal and interspinal ligaments. *Spine*, 20(8), 869-876.
- Johansson, P.H.; Lindstrom, L.; Sundelin, G. y Lindstrom, B. (1999). The effects of preexercise stretching on muscular soreness, tenderness and force loss following heavy eccentric exercise. *Scandinavian Journal of Medicine and Science in Sports*, 9(4), 219-225.
- Jones, C.J.; Rikli, R.E.; Max, J. y Noffal, G. (1998). The reliability and validity of a chair sit-and-reach test as a measure of hamstring flexibility in older adults. *Research Quarterly for Exercise and Sport*, 69(4), 338-343.
- Jordá, E. (1971). Brevedad de los Isquiosurales. El síndrome de Bado en la gimnasia educativa y el deporte. *APUNTS de Medicina del Deporte*, 8 (31), 123-124.
- Jou, D.; Llebot, J.E. y Pérez García, C. (1989). *Física para ciencias de la vida*. Madrid: McGraw-Hill.
- Juker, D.; McGill, S.; Kropf, P. y Steffen, T. (1998). Quantitative intramuscular myoelectric activity of lumbar portions of psoas and the abdominal wall during a wide variety of tasks. *Medicine and Science in Sports and Exercise*, 30(2), 301-310.
- Junqueira, L.G. y Carneiro, J. (1983). *Basic histology*. California: Lange Medical Publication.
- Kaigle, A.M.; Holm, S.H. y Hansson, T.H. (1995). Experimental instability in the lumbar spine. *Spine*, 20(4). 421-430.
- Kaigle, A.M.; Holm, S.H. y Hansson, T.H. (1997). Kinematic behavior of the porcine lumbar spine: a chronic lesion model. *Spine*, 22(24), 2796-2806.
- Kane, J.W. y Sternheim, M.M. (1991). *Física*. Barcelona: Reverté.
- Kankaanpää, M.; Taimela, S.; Airaksinen, O. y Hänninen, O. (1999). The efficacy of active rehabilitation in chronic low back pain. *Spine*, 24, 1034-1042.
- Kapandji, I.A. (1981). *Cuadernos de fisiología articular III. Tronco y raquis*. Barcelona: Toray-Masson.



- Karst, G.M.; Willett, G.M.; Hyde, J.E.; Wendell, C.A. y Uhrlaub, M.L. (1998). Relative activity of abdominal muscle groups during strengthening exercises. *The Journal of Orthopaedic and Sports Physical Therapy*, 27(1), 65, 1998.
- Kato, Y.; Ikata, T.; Takai, H.; Takata, S.; Sairyo, K. y Iwanaga, K. (2000). Effects of specific warm-up at various intensities on energy metabolism during subsequent exercise. *Journal of Sports Medicine and Physical Fitness*, 40(2), 126-130.
- Katzmarzyk, P. y Craig, C.L. (2002). Musculoskeletal fitness and risk of mortality. *Medicine and Science in Sports and Exercise*, 34(5), 740-744.
- Kawchuk, G.N.; Kaigle, A.M.; Holm, S.H.; Rod-Fauvel, O.; Ekstrom, L. y Hansson, T. (2001). The diagnostic performance of vertebral displacement measurements derived from ultrasonic indentation in an in vivo model of degenerative disc disease. *Spine*, 26(12), 1348-1355.
- Kell, R.; Bell, G. y Quinney, A. (2001). Musculoskeletal fitness, health outcomes and quality of life. *Sports Medicine*, 31(12), 863-873.
- Keller, G.C. (1999). Low back pain: where does it come from and how do we treat it?. *Jacksonville Medicine*, April, 143-146.
- Keller, T.S.; Holm, S.H.; Hansson, T.H. y Spengler, D.M. (1990). The dependence of intervertebral disc mechanical properties on physiologic condition_Ts. *Spine*, 15(8), 751-761.
- Kelsey, J.L.; Githens, P.B.; White, A.A.; Holford, T.R.; Walter, S.D.; O'Connor, T.; Ostfeld, A.M.; Weil, U.; Southwick, W.O. y Calogero, J.A. (1984). An epidemiologic study of lifting and twisting on the job and risk for acute prolapsed lumbar intervertebral disc. *Journal of Orthopaedic Research*, 2(1), 61-66.
- Kendall, F. P. y Kendall, E. (1985). *Músculos: pruebas y funciones*. Barcelona: Jims.
- Kirby, R. y Roberts, J.A. (1985). *Introductory Biomechanics*. Ithaca, NY: Mouvement Publications.
- Knott, M. y Voss, D.E. (1968). *Proprioceptive Neuromuscular Facilitation*. New York: Harper y Row.
- Koeller, W.; Muehlhaus, S.; Meier, W. y Hartmann, F. (1986). Biomechanical properties of human intervertebral discs subjected to axial dynamic compression-influence of age and degeneration. *Journal of Biomechanics*, 19(10), 807-816.



- Kokkinidis, E. y Tokmakidis, S. (1997). The effect of warming-up with low intensity resistive exercise on delayed onset muscle soreness. *Medicine and Science in Sports and Exercise*, 29(5) Suppl, 63.
- Konig, M. y Biener, K. (1990). Sport specific injuries in weight lifting. *Schweizerische Zeitschrift fur Sportmedizin*, 38(1), 25-30.
- Korovessis, P.; Petsinis, G.; Papazisis, Z. y Baikousis, A. (2001). Prediction of thoracic kyphosis using Debrunner kyphometer. *Journal of Spinal Disorders*, 14(1), 67-72.
- Krajcelski, S.R.; Potvin, J.R. y Chiang, J. (1999). The in vivo dynamic response of the spine to perturbations causing rapid flexion: effects of pre-load and step input magnitude. *Clinical Biomechanics*, 14(1), 54-62.
- Kubo, K.; Kanehisa, H. y Fukunaga, T. (2001a). Effect of stretching training on the viscoelastic properties of human tendon structures in vivo. *Journal of Applied Physiology*, 92, 595-601.
- Kubo, K.; Kanehisa, H.; Kawakami, Y. y Fukunaga, T. (2001b). Influence of static stretching on viscoelastic properties of human tendon structures in vivo. *Journal of Applied Physiology*, 90, 520-527.
- Kubo, K.; Kaneshisa, H. y Fukunaga, T. (2002). Effects of transient muscle contractions and stretching on the tendon structures in vivo. *Acta Physiologica Scandinavica*, 175(2), 157-164.
- Laborit, H. (1990). *Les récepteurs centraux et la transduction de signaux*. Paris: Masson.
- Laget, P. (1976). *Biología y fisiología de los elementos nerviosos*. Barcelona: Toray-Masson.
- Lalande, G.; Kalifa, G. y Doboussset, J. (1984). Les déformations sagitales. *Encycl Méd Chir*, Paris; Radiodiagnostic II, 31671 B50: 4.
- Lambrinudi, C. (1934). Adolescent and senile kiphosis. *British Medical Bulletin*, 2, 800-804.
- Lander, J.E.; Hundley, J.R. y Simonton, R.L. (1992). The effectiveness of weight belts during multiple repetitions of the squat exercise. *Medicine and Science in Sports and Exercise*, 24(5), 603-609.
- Lander, J.E.; Simonton, R.L. y Giacobbe, J.K. (1990). The effectiveness of weight-belts during the squat exercise. *Medicine and Science in Sports and Exercise*, 22(1), 117-126.
- Lapierre, A. (1996). *La reeducación física. Tomo I*. Madrid: Dossat 2000.



- Larivière, C.; Gagnon, D. y Loisel, P. (2000). An application of pattern recognition for the comparison of trunk muscles EMG waveforms between subjects with and without chronic low back pain during flexion-extension and lateral bending tasks. *Journal of Electromyography and Kinesiology*, 10, 261-273.
- Larivière, C.; Gagnon, D. y Loisel, P. (2002). A biomechanical comparison of lifting techniques between subjects with and without chronic low back pain during freestyle lifting and lowering tasks. *Clinical Biomechanics*, 17, 89-98.
- Lavender, S.A.; Li, Y.C.; Andersson, G.B. y Natarajan, R.N. (1999). The effects of lifting speed on the peak external forward bending, lateral bending, and twisting spine moments. *Ergonomics*, 42, 111-125.
- Lavender, S.A.; Shakeel, K.; Andersson, G. y Thomas, J.S. (2000). Effects of a lifting belt on spine moments and muscle recruitments after unexpected sudden loading. *Spine*, 25(12), 1569-1578.
- Lee, P.; Helewa, A.; Goldsmith, C.H.; Smythe, H.A. y Stitt, L.W. (2001). Low back pain: prevalence and risk factors in an industrial setting. *Journal of Rheumatology*, 28, 346-351.
- Lee, Y. y Kang, S. (2002). Effect of belt pressure and breath held on trunk electromyographic. *Spine*, 27(3), 282-290.
- Leeson C.R. y Leeson T.S. (1980). *Histología*. Madrid: Interamericana.
- Leighton, J. R. (1955). Instrument and technic for measurement of range of joint motion. *The Archives of Physical Medicine and Rehabilitation*, 36, 571-578.
- Lengsfeld, M.; Frank, A.; Van Deursen, D.L. y Griss, P. (2000). Lumbar spine curvature during office chair sitting. *Medical Engineering and Physics*, 22(9), 665-669.
- Leroux M.A.; Zabjek K.M.; Simard G.; Badeaux J.; Coillard C. y Rivard C. (2000). A noninvasive anthropometric technique for measuring kyphosis and lordosis: An application for idiopathic scoliosis. *Spine*, 25 (13), 1689-94.
- Lesur, J. (1969). *La gimnasia médica en pediatría*. Barcelona: Toray-Masson.
- Levine, D.; Walker, J.R. y Tillman, L.J. (1997). The effect of abdominal muscle strengthening on pelvic tilt and lumbar lordosis. *Physiotherapy. Theory and practice*, 13, 217-226.
- Levine, D. y Whittle, M.W. (1996). The effects of pelvic movement on lumbar lordosis in the standing position. *The Journal of Orthopaedic and Sports Physical Therapy*, 24(3), 130-135.



- Li, S.; Patwardhan, A.G.; Amrouche, F.M.L.; Havey, R. y Meade, K.P. (1995). Limitations of the standard linear solid model of intervertebral discs subject to prolonged loading and low frequency vibration in axial compression. *Journal of Biomechanics*, 28(7), 779-790.
- Liemohn, W.P.; Sharpe, G.L. y Wasserman, J.F. (1994). Lumbosacral movement in the sit-and-reach and in Cailliet's protective-hamstring stretch. *Spine*, 19(18), 2127-2130.
- Liemohn, W. (2000) Amplitud de movimiento/flexibilidad. En: ACSM. *Manual de consulta para el control y la prescripción de ejercicio* (pp. 331-339). Barcelona: Paidotribo.
- Lin, R.M.; Jou, I.M. y Yu, C.Y. (1992). Lumbar lordosis: normal adults. *Journal of Formosan Medicine Association*, 91, 329-333.
- Lindgren, K.A.; Sihvonen, T.; Leino, E.; Pitkänen, M. y Manninen, H. (1993). Exercise therapy effects on functional radiographic findings and segmental electromyographic activity in lumbar spine instability. *Archives of Physical Medicine and Rehabilitation*, 74, 933-939.
- Lindsey, R. y Corbin, C.H. (1989). Questionable exercises – Some after alternatives. *JOPERD*, 60 (8), 26-32.
- Lipert, H. (1996). *Anatomía. Estructura y morfología del cuerpo humano*. Madrid: Marban.
- Lisón, J.F.; Monfort, M.; López, E. y Sarti, M.A. (1996a). Valoración experimental de la peligrosidad en la realización de ejercicios físicos. *Actas del III Congreso Nacional de Educación Física de Facultades de Educación y XIV de Escuelas Universitarias de Magisterio* (pp. 205-213), Guadalajara.
- Lisón, J.F.; Monfort, M. y Sarti, M.A. (1996b). Estudio de tres ejercicios para el fortalecimiento de la musculatura lumbar. *Archivos de Medicina del Deporte*, XIII (56), 427-432.
- Lisón, J.F.; Monfort, M. y Sarti, M.A. (1998). Entrenamiento isométrico de la musculatura lumbar. *Actas del VI Congreso Galego de Educación Física* (pp. 167-173). A Coruña: Servicio de Publicaciones de la Universidad de A Coruña.
- Lisón, J.F.; Monfort, M.; Vera, F.J.; Escribano, C. y Sarti, M.A. (1997). *Una alternativa para el fortalecimiento de la musculatura lumbar en la población escolar*. III Congreso de las Ciencias del Deporte, la Educación Física y la Recreación, Sección VI. Lleida (En CD-ROM).



- Lisón, J.F. y Sarti, M.A. (1998). Velocidad y rango de movimiento en el fortalecimiento de músculos posturales. Estudio preliminar. *Archivos de Medicina del Deporte*, 66, 291-298.
- Loebl, W. (1967). Measurement of spinal posture and range of spinal movement. *Ann Physical Medicine*, 7, 103-10.
- López, C. (1993). Alteraciones de la estática postural de la columna vertebral. *Archivos de Medicina del Deporte*, 10, 38, 181-187.
- López Miñarro, P.A. (2000). *Ejercicios desaconsejados en la Actividad Física. Detección y alternativas*. Barcelona: INDE.
- López Miñarro, P.A. y Rodríguez García, P.L. (2001). Ejercicios físicos desaconsejados para la columna vertebral y alternativas para su corrección. *Selección*, 10(1), 9-19.
- Lopez, F. y Lopez, C. (1995). Marco teórico práctico para la correcta ejecución del trabajo abdominal (I). *APUNTS Educación Física y Deportes*, 42, 36-45.
- López, T. (1991). Facilitación Neuromuscular Propioceptiva. *Sport y Medicina*, 12, 9-12.
- Lord, M.J.; Small, J.M.; Dinsay, J.M. y Watkins, R.G. (1997). Lumbar lordosis: effects of sitting and standing. *Spine*, 22(21), 2571-2574.
- Luke, A. y Micheli, L.J. (2000). Spondylolysis and Spondylolisthesis: principles in diagnosis and management. *International SportMedicine Journal*, 1(4) (www.esportsmed.com).
- Llanos, L.F. (1988). *Introducción a la biomecánica del aparato locomotor*. Madrid: Universidad complutense.
- Lluciá, J. (2001). *Musculación*. Barcelona: Martínez Roca.
- Macfarlane, P.A. (1993). Out with the sit-up, in with the curl-up!. *JOPERD*, Agosto, pp. 62-66.
- Macintosh, J.E.; Bogduk, N. y Pearcy, M.J. (1993a). The effects of flexion on the geometry and actions of the lumbar erector spinae. *Spine*, 18(7), 884-893.
- Macintosh, J.E.; Pearcy, M.J. y Bogduk, N. (1993b). The axial torque of the lumbar back muscles: torsion strength of the back muscles. *The Australian and New Zealand Journal of Surgery*, 63(3), 205-212.
- Magnusson, S.P.; Simonsen, E.B.; Aagaard, P.; Gleim, G.W.; McHugh, M.P. y Kjaer, M. (1995). Viscoelastic response to repeated static stretching in the



- human hamstring muscle. *Scandinavian Journal of Medicine and Science in Sports*, 5(6), 342-347.
- Magnusson, M.L.; Aleksiev, A.; Wilder, D.G.; Pope, M.H.; Spratt, K.; Lee, S.H.; Goel, V.K. y Weinstein, J.N. (1996). Unexpected load and asymmetric posture as etiologic factors in low back pain. *European Spine Journal*, 5(1), 23-35.
- Magnusson, S.P. (1998). Passive properties of human skeletal muscle during stretch maneuvers. A review. *Scandinavian Journal of Medicine and Science in Sports*, 8(2), 65-77.
- Magnusson, S.P.; Aagard, P.; Simonsen, E. y Bojsen-Moller, F. (1998). A biomechanical evaluation of cyclic and static stretch in human skeletal muscle. *International Journal of Sports Medicine*, 19(5), 310-316.
- Magnusson, S.P.; Aagaard, P. y Nielson, J.J. (2000). Passive energy return after repeated stretches of the hamstring muscle-tendon unit. *Medicine and Science in Sports and Exercise*, 32(6), 1160-1164.
- Mahoney, C. (1993). Health Related Exercise in Northern Ireland. *The Bulletin of Physical Education*, 29 (2), 21-24.
- Majkowski, G.R.; Jovag, B.W.; Taylor, B.T.; Taylor, M.S.; Allison, S.C.; Stetts, D.M. y Clayton, R.L. (1998). The effect of back belt use on isometric lifting force and fatigue of the lumbar paraspinal muscles. *Spine*, 23(19), 2104-2109.
- Mandell, R.D. (1986). *Historia cultural del deporte*. Barcelona: Ediciones Bellaterra.
- Mannion, A.F. (1999). Fibre type characteristics and function of the human paraspinal muscles: normal values and changes in association with low back pain. *Journal of Electromyographic and Kinesiology*, 9, 363-377.
- Mannion, A.F.; Connolly, B.; Wood, K. y Dolan, P. (1997). The use of surface EMG power spectral analysis in the evaluation of back muscle function. *Journal of Rehabilitation Research and Development*, 34(4), 427-439.
- Manno, R. (1981). *Fundamentos del entrenamiento deportivo*. Barcelona: Paidotribo.
- Manno, R. (1999). *El entrenamiento de la fuerza. Bases teóricas y prácticas*. Barcelona: INDE.
- Marcos Becerro, J.F. (1989). *El niño y el deporte*. Madrid: Rafael Santonja.
- Marcos Becerro, J.F. (1994). *Ejercicio, forma física y salud. Fuerza, resistencia y flexibilidad*. Madrid: Eurobook.



- Marras, W.; Davis, K.G.; Perguson, S.A.; Lucas, B.R. y Gupta, P. (2001). Spine loading characteristics of patients with low back pain compared with asymptomatic individuals. *Spine*, 26(23), 2566-2574.
- Marras, W.S.; Davis, K.G.; Heaney, C.A.; Maronotis, A.B. y Allread, W.G. (2000). The influence of psychosocial stress, gender, and personality on mechanical loading of the lumbar spine. *Spine*, 25, 3045-3054.
- Marras, W.S.; Davis, K.G. y Jorgensen, M. (2003). Gender influences on spine during complex lifting. *The Spine Journal*, 3, 93-99.
- Marras, W.S.; Davis, K.G.; Kirking, B.C. y Granata, K.P. (1999). Spine loading and trunk kinematics during team lifting. *Ergonomics*, 42(10), 1258-1273.
- Marras, W.S. y Granata, K.P. (1997). The development of an EMG-assisted model to assess spine loading during whole-body free dynamic lifting. *Journal of Electromyographic and Kinesiology*, 7(4), 259-268.
- Martín, P.; Sainz, D. y Rodeyra, J. (1987). Biomecánica del raquis cervical. *VII Jornadas de Fisioterapia*. Escuela universitaria de fisioterapia ONCE: Universidad Autónoma de Madrid.
- Martínez, I. (1997). Musculación y lesiones en la rodilla. *Selección*, 6(4), 219-227.
- Mathieu, P.A. y Fortin, M. (2000). EMG and kinematics of normal subjects performing trunk flexion/extensions freely in space. *Journal of Electromyographic and Kinesiology*, 10, 197-209.
- Mayer R.S.; Chen I.H.; Lavender S.A.; Trafimow J.H. y Andersson G.B. (1995). Variance in the measurement of sagittal lumbar spine range of motion among examiners, subjects, and instruments. *Spine*, 20(13), 1489-93.
- Mayer, J.M.; Graves, J.E.; Robertson, V.L.; Pierra, E.A.; Verna, J.L. y Ploutz-Snyder, L.L. (1999). Electromyographic activity of the lumbar extensor muscles: effect of angle and hand position during Roman chair exercise. *Archives of Physical Medicine and Rehabilitation*, 80(7), 751-755.
- Mayer, J.M.; Graves, J.E.; Udermann, B.E. y Ploutz-Snyder, L.L. (2002). Development of lumbar extension strength: effect of pelvic stabilization during resistance training. *Journal of Back and Musculoskeletal Rehabilitation*, 16, 25-31.
- Mayer, J.M.; Verna, J.L.; Manini, T.M.; Mooney, V. y Graves, J.E. (2002). Electromyographic activity of the trunk extensor muscles: effect of varying hip position and lumbar posture during Roman chair exercise. *Archives of Physical Medicine and Rehabilitation*, 83(11), 1543-1546.



- Mazzetti, S.A.; Kraemer, W.J.; Volek, J.S.; Duncan, N.D.; Ratamess, N.A.; Gómez, A.L.; Newton, R.U.; Häkkinen, K. y Fleck, S.J. (2000). The influence of direct supervision of resistance training on strength performance. *Medicine and Science in Sports and Exercise*, 32(6), 1175-1184.
- McCarroll, J.R.; Miller, J.M. y Ritter, M.A. (1986). Lumbar Spondylolysis and Spondylolisthesis in College football players. A prospective study. *The American Journal of Sports Medicine*, 14(5), 404-406.
- McGeorge, S. (1992). La seguridad como un factor de salud en las clases de Educación Física. En: J. Devís y C. Peiró (Coords). *Nuevas perspectivas curriculares en Educación Física: La salud y los juegos modificados* (pp. 57-76). Barcelona: INDE.
- McGill, S.M. (1988). Estimation of force and extensor moment contributions of the disc and ligaments at L4-L5. *Spine*, 13, 1395-1402.
- McGill, S.M. (1991). Kinetic potential of the lumbar trunk musculature about three orthogonal orthopaedic axes in extreme postures. *Spine*, 18/8, 809-815.
- McGill, S.M. (1992a). A myoelectrically based dynamic three-dimensional model to predict loads on lumbar spine tissues during lateral bending. *Journal of Biomechanics*, 25(4), 395-414.
- McGill, S.M. (1992b). The influence of lordosis on axial trunk torque and trunk muscle myoelectric activity. *Spine*, 17(10), 1187-1193.
- McGill, S.M. (1995). The mechanics of torso flexion: situps and standing dynamic flexion manoeuvres. *Clinical Biomechanics*, 10(4), 184-192.
- McGill, S.M. (1997a). The biomechanics of low back injury: implications on current practice in industry and the clinic. *Journal of Biomechanics*, 30(5), 465-475.
- McGill, S.M. (1997b). Distribution of tissue loads in the low back during a variety of daily and rehabilitation tasks. *Journal of Rehabilitation Research and Development*, 34(4), 448-458.
- McGill, S.M. (1999). Stability: from biomechanical concept to chiropractic practice. *Journal Canadian of Chiropractic Association*, 43(2), 75-88.
- McGill, S.M. (2001). Low back stability: from formal description to issues for performance and rehabilitation. *Exercise and Sport Sciences Reviews*, 29(1), 26-31.
- McGill, S.M. (2002). *Low back disorders. Evidence-Based prevention and rehabilitation*. Champaign: Human Kinetics.



- McGill, S.M. y Brown, S. (1992). Creep response of the lumbar spine to prolonged full flexion. *Clinical Biomechanics*, 7, 43-46.
- McGill, S.M. y Axler, C.T. (1996). Changes in spine height throughout 32 hours of bedrest. *Archives of Physical Medicine and Rehabilitation*, 77, 1071-1073.
- McGill, S.M.; Childs, A. y Liebenson, C. (1999). Endurance times for low back stabilization exercises: clinical targets for testing and training from a normal database. *Archives of Physical Medicine and Rehabilitation*, 80, 941-944.
- McGill, S.M.; Hughson, R.L. y Parks, K. (2000). Lumbar erector spinae oxygenation during prolonged contractions: implications for prolonged work. *Ergonomics*, 43(4), 486-493.
- McGill, S.M.; Juker, D. y Kroft, P. (1996). Quantitative intramuscular myoelectric activity of quadratus lumborum during a wide variety of tasks. *Clinical Biomechanics*, 11(3), 170-172, 1996.
- McGill, S.M. y Kippers, V. (1994). Transfer of loads between lumbar tissues during the flexion-relaxation phenomenon. *Spine*, 19(19), 2190-2196.
- McGill, S.M. y Norman, R.W. (1987). Effects of an anatomically detailed erector spinae model on L4/L5 disc compression and shear. *Journal of Biomechanics*, 20(6), 591-600.
- McGill, S.M. y Norman, R.W. (1992). Low back biomechanics in industry - Prevention of injury. En: M.D. Grabiner (Ed.). *Current issues in Biomechanics* (pp. 69-120). Champaign: Human Kinetics.
- McGill, S.M.; Norman, R.W. y Sharratt, M.T. (1990). The effect of an abdominal belt on trunk muscle activity and intra-abdominal pressure during squat lifts. *Ergonomics*, 33(2), 147-160.
- McGill, S.M.; Seguin, J. y Bennett, G. (1994). Passive stiffness of the lumbar torso in flexion, extension, lateral bending, and axial rotation. Effect of belt wearing and breath holding. *Spine*, 19(6), 696-704.
- McGorry, R. y Hsiang, S. (2000). A method for dynamic measurement of lumbar lordosis. *Journal of Spinal Disorders*, 13(2), 118-123.
- McHugh, M.P.; Magnusson, S.P.; Gleim, G.W. y Nicholas, J.A. (1992). Viscoelastic stress relaxation in human skeletal muscle. *Medicine and Science in Sports and Exercise*, 24(12), 1375-1382.
- McNally, D.S.; Shackelford, I.; Mulholland, R.C. y Goodship, A.E. (1994). A new technique to measure the internal mechanical behavior of intervertebral discs in vivo. *Trans Orthopaedic Research Society*, 19, 735.



- Medina, M. (1992). *Biomecánica lumbar. Conceptos actuales*. Universidad de Oviedo.
- Mellin, G. (1986). Measurement of thoracolumbar posture and mobility with a Myrin inclinometer. *Spine*, 11, 759-762.
- Mellin, G. (1987). Correlation of spinal mobility with degree the degree of chronic low back pain after correction for age and anthropometric factors. *Spine*, 12, 464-468.
- Mellin, G. (1988). Correlation of hip mobility with degree of back pain and lumbar spine mobility in chronic low-back pain patients. *Spine*, 13(6), 668-670.
- Mellin, G. y Poussa, M. (1992). Spinal mobility and posture in 8- to 16-years old children. *Journal Orthopedic Research*, 10, 2, 211-216.
- Meredith, M. D. (1988). Activity or fitness: Is the process or the product more important for public health? *Quest*, 40, 180-186.
- Messier, S.P. y Dill, M.E. (1985). Alterations in strength and maximal oxygen uptake consequent to Nautilus circuit weight training. *Research Quarterly for Exercise and Sport*, 56(4), 345-351.
- Milne, R. A. y Mierau, D. R. (1979). Hamstring distensibility in the general population: relationship to pelvic and back stresses. *Journal of Manipulative and Physiological Therapeutics*, 2 (3), 146-150.
- Minkler, S. y Patterson, P. (1994). The validity of the modified sit-and-reach test in college-age students. *Research Quarterly for Exercise and Sport*, 65(2), 189-192.
- Miralles, R.C. y Puig, M. (1998). Columna vertebral. En: R.C. Miralles (Ed.). *Biomecánica clínica del aparato locomotor*. Barcelona: Masson.
- Miyamoto, K.; Linuma, N.; Maeda, M.; Wada, E. y Shimizu, K. (1999). Effects of abdominal belts on intra-abdominal pressure, intra-muscular pressure in the erector spinae muscles and myoelectrical activities of trunk muscles. *Clinical Biomechanics*, 14, 79-87.
- Moeller, J.L. (1996a). Contraindications to athletic participation: spinal, systemic, dermatologic, paired-organ, and other issues. *The Physician and Sportsmedicine*, 24(9).
- (http://www.physsportsmed.com/issues/sep_96/moeller.htm)
- Moeller, J.L. (1996b). Contraindications to athletic participation: cardiac, respiratory, and central nervous system conditions. *The Physician and Sportsmedicine*, 24(8).



- (http://www.physsportsmed.com/issues/1996/08_96/moeller.htm).
- Moffatt, R.J. y Cucuzzo, N. (2000). Conceptos de fuerza para la prescripción de ejercicio. En: American College of Sports Medicine. *Manual de consulta para el control y la prescripción de ejercicio* (pp. 341-347). Barcelona: Paidotribo.
- Monfort, M. (2000). La estabilización del tronco como fin para la práctica de la actividad física saludable. En: *Educación Física y salud. Actas del II Congreso Internacional de Educación Física* (pp. 625-633). Jerez: FETE-UGT Cádiz.
- Monfort, M. y Sarti, M.A. (1998). Musculatura del tronco: función y desarrollo. En: F. Ruiz y P.L. Rodríguez (Coords.). *Educación Física, deporte y salud* (pp. 269-286). Murcia: Área de Didáctica de la Expresión Corporal.
- Monfort, M.; Sarti, M.A. y Sanchis, C. (1997). *Actividad eléctrica del músculo recto mayor del abdomen en ejercicios abdominales*. APUNTS Medicina Deportiva, XXXII, 279-290.
- Monroche, A. (1997). Articulaciones, prevención y seguimiento médico del deportista. *Archivos de Medicina del Deporte*, XIV, 59, 229-230.
- Montoliú, J.; Martínez-Almagro, A.; Roch, S.; Alcañiz, M. y Peris, G. (1994). Disco intervertebral y deporte. *Archivos de Medicina del Deporte*, 42, 145-151.
- Mookerjee, S.; Dixon, C.; Ratamess, N. y Rushton, D. (1999). EMG analysis of elbow flexor activity during biceps curl exercise. *Medicine and Science in Sports and Exercise*, 31(5)Suppl, S116.
- Moore, M. A. y Hutton, R. S. (1980). Electromyographic investigation of muscle stretching techniques. *Medicine and Science in Sport and Exercise*, 12, 5, 322-339.
- Moreland, M.S.; Pope, M.H. y Armstrong, G.W.D. (1981). Moire fring topography and spinal deformity. *Proceeding of an International Symposium*. Vermont: Pergamon Press.
- Moreno, J.A. y Rodríguez, P.L. (1995). *Contenidos teóricos en Educación Física*. Murcia: DM.
- Moreno, J.A.; Rodríguez, P.L. (1996). Los estiramientos en educación física. En: A. Díaz (Ed.). *El deporte en educación primaria* (pp. 191-214). Barcelona: DM-PPU.
- Morin, G. (1974). *Fisiología del Sistema Nervioso Central*. Barcelona: Toray-Masson.



- Morini, S. y Ciccarelli, A. (1998). Anatomia funzionale e valutazione isocinetica della muscolatura del tronco. *Medicina dello Sport*, 51, 85-90.
- Morrow, J.R. y Gill, D.L. (1995). Physical Activity, Fitness and Health: Introduction. *Quest*, 47 (3), 201-202.
- Moseley, G.L.; Hodges, P.W. y Gandevia, S.C. (2002). Deep and superficial fibers of the lumbar multifidus muscle are differentially active during voluntary arm movements. *Spine*, 27(2), E29-E36.
- Mueller, G.; Morlock, M.M.; Vollmer, M.D.; Honl, M.; Hille, E. y Scheneider, E. (1998). Intramuscular pressure in the erector spinae and intra-abdominal pressure related to posture and load. *Spine*, 23(23), 2580-2590.
- Mundt, D.J.; Kelsey, J.L.; Golden, A.L.; Panjabi, M.M.; Pastides, H.; Berg, A.T.; Sklar, J. y Hosea, T. (1993a). An epidemiologic study of sports and weight lifting as possible risk factors for herniated lumbar and cervical discs. *The American Journal of Sports Medicine*, 21(6), 854-860.
- Mundt, D.J.; Kelsey, J.L.; Golden, A.L.; Pastides, H.; Berg, A.T.; Sklar, J.; Hosea, T. y Panjabi, M.M. (1993b). An epidemiologic study of non occupational lifting as a risk factor for herniated lumbar intervertebral disc. The Northeast Collaborative Group on low back pain. *Spine*, 18(5), 595-602.
- Munuera, L. (1996). *Introducción a la Traumatología y Cirugía Ortopédica*. Madrid: Interamericana-McGraw-Hill.
- Murphy, D.F.; Connolly, D.A.J. y Beynnon, B.D. (2002). Risk factors for lower extremity injury: a review of the literature. *British Journal of Sports Medicine*, 37, 13-29.
- Nachemson, A. (1976). The load on lumbar disks in different positions of the body. *Clinical Orthopaedic*, 45, 107-112.
- Nadler, S.F.; Malanga, G.A.; Bartoli, L.A.; Feinberg, J.H.; Prybicien, M. y Deprince, M. (2002). Hip muscle imbalance and low back pain in athletes: influence of core strengthening. *Medicine and Science in Sports and Exercise*, 34(1), 9-16.
- Natarajan, R.N. y Andersson, G.B.J. (1999). The influence of lumbar disc height and cross-sectional area on the mechanical response of the disc to physiologic loading. *Spine*, 24(18), 1873-1881.
- Netter, F. (1991). *Sistema Nervioso: anatomía y fisiología*. Barcelona: Salvat.
- Ng, J.K.; Kippers, V.; Richardson, C.A. y Parnianpour, M. (2001). Range of motion and lordosis of the lumbar spine: reliability of measurement and normative values. *Spine*, 26(1), 53-60.



- Nieman, D.C. (1990). Individualized exercise prescription. En: D.C. Nieman (Coord.). *Fitness and Sports Medicine. An introduction* (pp. 183-218). California: Bull Publishing Company.
- Ninos, J.C.; Irrgang, J.J.; Burdett, R. y Weiss, J.R. (1997). Electromyographic analysis of the squat performed in self-selected lower extremity neutral rotation and 30° of lower extremity turn-out from the self-selected neutral position. *The Journal of Orthopaedic and Sports Physical Therapy*, 25(5), 307-315.
- Nissan, M.; Bar-Ilan, K.; Luger, E.J.; Steinberg, E.L.; Brown, S. y Dekel, S. (1999). The normal, healthy low back: some functional parameters. *Journal of Back and Musculoskeletal Rehabilitation*, 12(1), 1-5.
- Noonan, T.J.; Best, T.M.; Seaber, A.V y Garrett W.E. (1993). Thermal effects on skeletal muscle tensile behaviour. *American Journal of Sports Medicine*, 21(4), 517-522.
- Noonan, T.J. y Garrett, W.E. (1999). Muscle strain injury: diagnosis and treatment. *The Journal of the American Academy of Orthopaedic Surgeons*, 7(4), 262-269.
- Norman, R.; Wells, P.; Neumann, P.; Frank, J.; Shannon, H. y Kerr, M. (1998). A comparison of peak vs. cumulative physical work exposure risk factors for the reporting of low back pain in the automotive industry. *Clinical Biomechanics*, 13, 561-573.
- Norris, C.M. (1993). Abdominal muscle training in sport. *British Journal of Sports Medicine*, 27(1), 19-27.
- Norris, C.M. (1998). *Entrenamiento abdominal*. Madrid: Tutor.
- Nourbakhsh, M.R.; Moussavi, S.J. y Salavati, M. (2001). Effects of lifestyle and work-related physical activity on the degree of lumbar lordosis and chronic low back pain in a middle east population. *Journal of Spinal Disorders*, 14(4), 283-292.
- O'Sullivan, P.B.; Grahamslaw, K.M.; Kendell, M.M.; Lapenskie, S.C.; Möller, N.E. y Richards, K.V. (2001). The effect of different standing and sitting postures on trunk muscle activity in a pain free population. *4th Interdisciplinary World Congress on Low Back & Pelvic Pain* (pp. 180-183), Montreal.
- O'Sullivan, P.B.; Twomey, L. y Allison, G.T. (1998). Altered abdominal muscle recruitment in patients with chronic back pain following a specific exercise intervention. *The Journal of Orthopaedic and Sports Physical Therapy*, 27(2), 114-124.



- Öhlen, G.; Spangfort, E. y Tingvall, C. (1989). Measurement of spinal sagittal configuration and mobility with Debrunner's Kyphometer. *Spine*, 14, 6, 847-850.
- Ongaro, L. y Fugazza, M. (1991). Potenciar... estirando. *Sport y Medicina*, 12, 18-20.
- Ortiz, V. (1996). Entrenamiento de fuerza para la salud. *APUNTS Educación Física y Deportes*, 46, 94-99.
- Osternig, L.R.; Robertson, R.N.; Troxel, R.K. y Hansen, P. (1990). Differential responses to proprioceptive neuromuscular facilitation (PNF) stretch techniques. *Medicine and Science in Sports and Exercise*, 22(1), 106-111.
- Paajanen, H.; Requintalo, M.; Kuusela, T.; Dahlstrom, S. y Kormano, M. (1989). Magnetic resonance study of disc degeneration in young low-back pain patients. *Spine*, 14, 982-985.
- Paajanen, H.; Erkintalo, M.; Parkkola, R.; Salminen, J. y Kormano, M. (1997). Age dependent correlation of low back pain and lumbar disc regeneration. *Archives of Orthopaedic and Trauma Surgery*, 116(1-2), 106-107.
- Pamblanco, M.A. (2000). Ejercicio alternativo sobre banco romano para el desarrollo de la musculatura postural. En: *Educación Física y salud. Actas del II Congreso Internacional de Educación Física* (pp. 673-682). Jerez: FETE-UGT Cádiz.
- Pamela, J.; Salisbury, W.; Richard, W. y Porter, M. (1987). Measurement of lumbar sagittal mobility a comparison of methods. *Spine*, 12(2): 190-193.
- Panjabi, M.M. (1985). *The human spine: story of its Biomechanical Functions. Biomechanics IX-A*, 219-223, Champaign: Human Kinetics.
- Panjabi, M.M. (1992). The stabilizing system of the spine. Part II. Neutral zone and instability hypothesis. *Journal of Spinal Disorders*, 5(4), 397.
- Paquet, N.; Malouin, F.; Richards, C.; Dionne, J. y Comeau, F. (1991). Validity and reliability of a new electrogoniometer for the measurement of sagittal dorsolumbar movements. *Spine*, 16 (5), 516-519.
- Parkkola, R. y Kormano, M. (1992). Lumbar disc and back muscle degeneration on MRI: correlation to age and body mass. *Journal of Spinal Disorders*, 5(1), 86-92.
- Parkkola, R.; Kujala, U. y Rytökoski, U. (1992). Response of the trunk muscles to training assessed by magnetic resonance imaging and muscle strength. *European Journal of Applied Physiology*, 65, 383-387.



- Pastor, A. (2000). Estudio del morfotipo sagital de la columna y de la extensibilidad de la musculatura isquiosural de jóvenes nadadores de élite españoles. *Tesis Doctoral*. Universidad de Murcia.
- Pate, R.R. (1988). The Evolving Definition of Physical Fitness. *Quest*, 40, 174-179.
- Pate, R.R.; Pratt, M.; Blair, S.N.; Haskell, W.L.; Macera, C.A.; Bouchard, C.; Buchner, D.; Ettinger, W.; Heath, G.W.; King, A.C.; Kriska, A.; Leon, A.S.; Marcus, B.H.; Morris, J.; Paffenbarger, R.S.; Patrick, K.; Pollock, M.L.; Rippe, J.M.; Sallis, J. y Wilmore, J.H. (1995). Physical activity and public health: a recommendation from the centers for disease control and prevention and the American College of Sports Medicine. *JAMA*, 273(5), 402-407.
- Pearl, B. (1990). *Tratado general de la musculación*. Barcelona: Paidotribo.
- Pedersen, A.M. y Hasson, S.M. (1996). Comparison of electromyographic activity of the quadriceps during two knee extension movement patterns. *The Journal of Orthopaedic & Sports Physical Therapy*, 23(1), 65.
- Peiró, C. (1991). Educación Física y salud: Realización correcta y segura de los ejercicios físicos. *Perspectivas*, 8, 14-17.
- Pérez, C.; Herrero, F. y Santonja, F. (1997). Ejercicios para el desarrollo de la fuerza. *Selección*, 6(4), 64-77.
- Plowman, S. (1992). Physical Activity, Physical Fitness, and low back pain. *Exercise and Sport Sciences Reviews*, 20, 221-239.
- Pollock, M.L.; Feigenbaum, M.S. y Brechue, W.F. (1995). Exercise prescription for physical fitness. *Quest*, 47(3), 320-337.
- Pollock, M.L.; Leggett, S.H.; Graves, J.E.; Jones, A.; Fulton, M. y Cirulli, J. (1989). Effect of resistance training on lumbar extension strength. *The American Journal of Sports Medicine*, 17(5), 624-628.
- Pope, M.H.; Wilder, D.G. y Magnusson, M. (1999). A review of studies on seated whole body vibration and low back pain. *Proceedings of the Institution of Mechanical Engineers*, 213(6), 435-446.
- Pope, R.P.; Herbert, R.D. y Kirwan, J.D. (1998a). Effects of flexibility and stretching on injury risk in army recruits. *Australian Journal of Physiotherapy*, 44, 165-172.
- Pope, M.H.; Magnusson, M. y Wilder, D. (1998b). Low back pain and whole body vibration. *Clinical Orthopaedics and Related Research*, 354, 241-248.



- Pope, R.P.; Herbert, R.D.; Kirwan, J.D. y Graham, B.J. (2000). A randomised trial of preexercise stretching for prevention of lower limb injury. *Medicine and Science in Sports and Exercise*, 32(2), 271-277.
- Porta J. (1987). El desarrollo de las capacidades físicas. La flexibilidad. *APUNTS Educación Física*, 7-8, 10-19.
- Porter, R.W.; Adams, M.A. y Hutton, W.C. (1989). Physical activity and the strength of the lumbar spine. *Spine*, 14, 201-203.
- Potvin, J.R. (1992). The influence of fatigue on hypothesized mechanisms of injury to the low back during repetitive lifting. *Tesis Doctoral*. Universidad de Waterloo.
- Potvin, J.R.; McGill, S.M. y Norman, R.W. (1991). Trunk muscle and lumbar ligament contributions to dynamic lifts with varying degrees of trunk flexion. *Spine*, 16(9), 1099-1107.
- Potvin, J.R. y Norman, R.W. (1993). Quantification of erector spinae muscle fatigue during prolonged, dynamic lifting tasks. *European Journal of Applied Physiology*, 67, 554-562.
- Potvin, J.R.; Norman, R.W. y McGill, S.M. (1996). Mechanically corrected EMG for the continuous estimation of erector spinae muscle loading during repetitive lifting. *European Journal of Applied Physiology*, 74, 119-132.
- Potvin, J.R. y O'Brien, P.R. (1998). Trunk muscle co-contraction increases during fatiguing, isometric, lateral bend exertions: possible implications for spine stability. *Spine*, 23(7), 774-780.
- Quenneville, M.J.J. y Sidney, K. (1992). Fitness Testing and Counselling in Health Promotion. *Canadian Journal of Sport Science*, 17 (3), 194-198.
- Quint, U.; Wilke, H.; Shirazi-Adl, A.; Pamianpour, M.; Löer, F. y Claes, L.E. (1998). Importance of the intersegmental trunk muscles for the stability of the lumbar spine. *Spine*, 23, 1937-1945.
- Radebold, A.; Cholewicki, J. y Panjabi, M.M. (1998). Muscle recruitment patterns associated with increased intra-abdominal pressure and lumbar spine stability. *North American Congress on Biomechanics*. Waterloo, 14-18 Agosto.
- Radebold, A.; Cholewicki, J.; Panjabi, M.M. y Patel, T.C. (2000). Muscle response pattern to sudden trunk loading in healthy individuals and in patients with chronic low back pain. *Spine*, 25(8), 947-954.
- Radebold, A.; Cholewicki, J.; Polzhofer, G.K. y Greene, H.S. (2001). Impaired postural control of the lumbar spine is associated with delayed muscle



- response times in patients with chronic idiopathic low back pain. *Spine*, 26(7), 724-730.
- Rafacz, W. y McGill, S.M. (1996). Wearing an abdominal belt increases diastolic blood pressure. *Journal of Occupational and Environmental Medicine*, 38(9), 925-927.
- Rauramaa, R. y Leon, A.S. (1996). Physical activity and risk of cardiovascular disease in middle-aged individuals. *Sports Medicine*, 22(2), 65-69.
- Reeves, R.K.; Laskowski, E.R. y Smith, J. (1998). Weight training injuries: part 2: Diagnosing and managing chronic conditions. *The Physician and Sportsmedicine*, 26(3), 54.
- Reis, J.; Flegel, M. y Kennedy, C. (1996). An assessment of lower back pain in young adults: implications for college health education. *Journal of American College Health*, 44(6), 289-293.
- Reynolds, M.G. (1975). Measurement of spinal mobility: a comparison of three methods. *Rheumatology and Rehabilitation*, 14, 180-185.
- Richardson, I.W. (1972). *Physics for biology and medicine*. Londres: Wiley-Interscience.
- Richardson, J.K.; Chung, T.; Schultz, J.S. y Hurvitz, E. (1997). A familial predisposition toward lumbar disc injury. *Spine*, 22(13), 1487-1492.
- Roberts, J.M. y Wilson, K. (1999). Effect of stretching duration on active and passive range of motion in the lower extremity. *British Journal of Sports Medicine*, 33(4), 259-263.
- Rodenburg, J.B.; Steenbeek, D.; Schiereck, P. y Bar, P.R. (1994). Warm-up, stretching and massage diminish harmful effects on eccentric exercise. *International Journal of Sports Medicine*, 15(7), 414-419.
- Rodríguez, F.A. (1995). Prescripción de ejercicio para la salud (y II). Pérdida de peso y condición músculoesquelética. *APUNTS Educación Física y Deportes*, 40, 83-92.
- Rodríguez, P. L. y Moreno, J. A. (1997a). Justificación de la continuidad en el trabajo de estiramiento muscular para la consecución de mejoras en los índices de movilidad articular. *APUNTS de Educación Física y Deportes*, 48, 54-61.
- Rodríguez, P. L. y Moreno, J. A. (1997b). Fundamentos en el desarrollo de los estiramientos. *Archivos de Medicina del Deporte*, XIV, 57, 37-43.
- Rodríguez, P.L. (1998). *Educación Física y salud del escolar: programa para la mejora de la extensibilidad isquiosural y del raquis en el plano sagital*. Tesis Doctoral. Universidad de Granada.



- Rodríguez, P.L. (2000). La higiene postural en Educación Física. Propuesta de aplicación de un programa escolar. En: *Educación Física y salud. Actas del segundo Congreso Internacional de Educación Física* (pp. 255-286). Jerez: FETE-UGT Cádiz.
- Rodríguez, P.L. (2002). Prescripción de ejercicio físico para el acondicionamiento muscular. *Selección*, 11(4), 191-201.
- Rodríguez, P.L. y Casimiro, A.J. (2000). Papel del especialista en actividades físicas como promotor de salud y calidad de vida. En: C. Águila, A.J. Casimiro y A. Sicilia (Coords.). *Salidas profesionales y promoción en el ámbito de la Actividad Física y el Deporte* (pp. 211-242). Almería: Servicio de publicaciones de la Universidad de Almería.
- Rodríguez, P.L. y Santonja, F. (2000). Los estiramientos en la práctica físico-deportiva. *Selección*, 4, 11-25.
- Rodríguez, P.L. y Santonja, F. (2001). Repercusiones posturales con los estiramientos en flexión de tronco y las pruebas de distancia dedos-planta y distancia dedos-suelo. *APUNTS Educación Física y Deportes*, 65, 64-70.
- Rodríguez, P.L.; Santonja, F. y Delgado, M. (1999). Evolución de las molestias raquídeas en diferentes posturas tras la aplicación de un programa de higiene postural y cinesiterapia en escolares. En: P. Saénz, J. Tierra y M. Díaz (Coords.). *Actas del XVII Congreso Nacional de Educación Física* (pp. 1067-1076). Málaga: Instituto Andaluz del Deporte.
- Rodríguez, P.L.; Santonja, F.; Delgado, M.; Canteras, M.; Fernández, J. y Balsalobre, J. (1998). Modificaciones de las sensaciones de molestias y dolores raquídeos en escolares tras la aplicación de un programa de mejora postural. En: A. García, F. Ruiz y A.J. Casimiro (Coords.). *La enseñanza de la Educación Física y el deporte escolar. Actas del II Congreso Internacional* (pp. 418-422). Almería: Instituto Andaluz del Deporte.
- Rodríguez, P.L. y Yuste, J.L. (2001). Prescripción de ejercicio físico para el acondicionamiento muscular. En: A. Díaz y E. Segarra (Coords.). *Actas del 2º congreso Internacional de Educación Física y Diversidad* (pp. 363-378). Murcia: Consejería de Educación y Universidades.
- Rohlmann, A.; Neller, S.; Claes, L.; Bergmann, G. y Wilke, H. (2001). Influence of a follower load on intradiscal pressure and intersegmental rotation of the lumbar spine. *Spine*, 26(24), E557-E561.



- Rossi, F. y Dragoni, S. (1990). Lumbar Spondylolysis: occurrence in competitive athletes. Updated achievements in a series of 390 cases. *The Journal of Sports Medicine and Physical Fitness*, 30, 450-452.
- Rothman, R y Simeone, F. (1989). *La columna vertebral*. Buenos Aires: Panamericana.
- Roy, S.H.; De Luca, C.J.; Snyder-Mackler, L.; Emley, M.S.; Crenshaw, R.L. y Lyons, J.P. (1990). Fatigue, recovery, and low back pain in varsity rowers. *Medicine and Science in Sports and Exercise*, 22(4), 463-469.
- Rozenblat, M. (1998). Gymnastique et traumatologie. *Cinésiologie*, 182(37), 205-209.
- Russell, P.; Weld, A.; Pearcy, M.J.; Hogg, R. y Unsworth, A. (1992). Variation in lumbar spine mobility measured over a 24 hour period. *British Journal of Rheumatology*, 31(5), 329-332.
- Sady, S. P.; Wortman, M. y Blanke, D. (1982). Flexibility training: Ballistic, static or proprioceptive neuromuscular facilitation. *Archives of Physical Medicine and Rehabilitation*, 63, 6, 261-263.
- Safran, M.R.; Garrett, W.E.; Seaber, A.V.; Glisson, R.R. y Ribbeck, B.M. (1988). The role of warm-up in muscular injury prevention. *The American Journal of Sports Medicine*, 16(2), 123-128.
- Safran, M.R.; Seaber, A.V. y Garrett, W.E. (1989). Warm-up and muscular injury prevention. An update. *Sports Medicine*, 8(4), 239-249.
- Samaniego, V. y Devís, J. (2003). La promoción de la actividad física relacionada con la salud. La perspectiva de proceso y de resultado. *Revista Internacional de Medicina de las Ciencias de la Actividad Física y del Deporte*, 9, (http://cdeporte.rediris.es/revista/revista9/artmotivacion.html).
- Samo, D.G.; Chen, S.C.; Crampton, A.R.; Chen, E.H.; Conrad, K.M.; Egan, L. y Mitton, J. (1997). Validity of three lumbar sagittal motion measurement methods: surface inclinometers compared with radiographs. *Journal of Occupational and Environmental Medicine*, 39(3), 209-216.
- Sánchez, J. (1997). Relación de las lesiones del hombro con el entrenamiento y la fuerza. *Selección*, 6(4), 110-118.
- Sánchez, R.O. (1992). *Medicina del ejercicio físico y del deporte para la atención a la salud*. Madrid: Díaz de Santos.
- Santaguida, L. y McGill, S.M. (1995). The psoas major muscle: a three-dimensional mechanical modeling study with respect to the spine based on MRI measurement. *Journal of Biomechanics*, 28(3), 339-345.



- Santonja, F. (1990). Alteraciones axiales sagitales del raquis. Estudio de la población deportista universitaria de Murcia. *Trabajo fin de especialidad*. Escuela Profesional de Medicina de la Educación Física y el Deporte. Universidad Complutense de Madrid.
- Santonja, F. (1992). Reconocimiento del aparato locomotor durante la edad escolar. En: F. Santonja y I. Martínez. (Coords.). *Valoración médica deportiva del escolar* (pp. 259-277). Murcia: Secretariado de publicaciones de la Universidad de Murcia.
- Santonja, F. (1993). Exploración clínica y radiográfica del raquis sagital. Sus correlaciones (premio SOCUMOT-91). Murcia: Secretariado de publicaciones e intercambio científico.
- Santonja, F. (1996). Las desviaciones sagitales del raquis y su relación con la práctica deportiva. En: V. Ferrer, L. Martínez y F. Santonja (Coords.). *Escolar: Medicina y Deporte* (pp. 251-268). Albacete: Diputación Provincial de Albacete.
- Santonja, F. (1997). Musculación en las desalineaciones del raquis. *Selección*, 6(4), 205-218.
- Santonja, F.; Ferrer, V. y Martínez, I. (1995). Exploración clínica del síndrome de isquiosurales cortos. *Selección*, 4(2), 81-91.
- Santonja, F. (1992). Reconocimiento del aparato locomotor durante la edad escolar. En: Santonja, F. y Martínez, I. (Coords.). *Valoración médica deportiva del escolar* (pp. 259-277). Murcia: Secretariado de publicaciones de la Universidad de Murcia.
- Santonja, F. y Martínez, I. (1995). Raquis y deporte: ¿cuál sí y cuándo?. *Selección*, 4(1), 28-38.
- Santonja, F. y Martínez, I. (1992a). Síndrome de acortamiento de la musculatura isquiosural. En: Santonja, F. y Martínez, I. (Coords.). *Valoración médica deportiva del escolar* (pp. 246-258). Murcia: Secretariado de publicaciones de la Universidad de Murcia.
- Santonja, F. y Martínez, J. (1992b). Clínica y exploración de las alteraciones axiales del raquis y pelvis. En: F. Santonja y I. Martínez. (Coords.). *Valoración Médico-deportiva del escolar* (pp. 207-221). Murcia: Secretariado de publicaciones de la Universidad de Murcia.
- Santonja, F.; Pastor, A.y Ferrer, V. (1997). Aspectos médicos de la musculación. Editorial. *Selección*, 6(4), 13-14.
- Santonja, F.; Pastor, A. y Serna, L. (2000). Valoración radiográfica de las desalineaciones sagitales del raquis. *Selección*, 9(4), 216-229.



- Sañudo, J.R.; Rodríguez, A. y Domenech, J.M. (1985). Anatomía y embriología de la columna vertebral. En R. Viladot y O. Cohi (1992). *Ortesis y prótesis del aparato locomotor* (pp. 13-27). Barcelona: Masson.
- Sarti, M.A.; Lisón, J.F.; Monfort, M. y Fuster, M.A. (1997). Flexion relaxation phenomenon in the erector spinae muscle. *European Journal of Anatomy*, 1, 52.
- Sarti, M.A.; Lisón, J.F.; Monfort, M. y Fuster, M.A. (2001a). Response of the lumbar-relaxation phenomenon relative to the lumbar motion to load and speed. *Spine*, 26(18), E421-E426.
- Sarti, M.A.; Monfort, M. y Bosh, A.H. (2001b). Fortalecimiento de la musculatura abdominal como objetivo en la preparación físico-deportiva. En: V. Carratalá, J.F. Guzmán y M.A. Fuster (Coords.). *Nuevas aportaciones al estudio de la actividad física y el deporte. II Congreso de Ciencias de la Actividad Física y el Deporte* (pp. 359). Valencia: Universidad de Valencia.
- Sarti, M.A.; Monfort, M. y Fuster, M.A. (1996a). Intensidad de la contracción del músculo recto mayor del abdomen. Estudio electromiográfico. *Archivos de medicina del deporte*, volumen XIII, 56, 441-446.
- Sarti, M.A.; Monfort, M.; Sanchís, C. y Aparicio, L. (1996b). Anatomía funcional del músculo rectus abdominis. Estudio electromiográfico. *Archivo Español de Morfología*, 1, 143-149.
- Saur, P.M.; Ensink, F.M.; Frese, K.; Seeger, D. y Hildebrandt, J. (1996). Lumbar range of motion: reliability and validity of the inclinometer technique in the clinical measurement of trunk flexibility. *Spine*, 21(1), 1332-1338.
- Schwartz, R.S. y Hirth, V.A. (1995). The effects of endurance and resistance training on blood pressure. *International Journal of Obesity and Related Metabolic Disorders*, 19(suppl. 4), S52-S57.
- Scott, M. (1989). Back support mechanisms during manual lifting. *Physical Therapy*, 69(1), 52-45.
- Serna, L.; Santonja, F. y Pastor, A. (1996). Exploración clínica del plano sagital del raquis. *Selección*, 5(2), 36-50.
- Sharpe, G.; Liemohn, W. y Snodgrass, L. (1988). Exercise prescription and the low back-kinesiological factors. *JOPERD*, Noviembre-Diciembre, 74-77.
- Shellock, F.G. y Prentice, W.E. (1985). Warming-up and stretching for improved physical performance and prevention of sports related injuries. *Sports Medicine*, 2(4), 267-278.



- Shields, R.K. y Givens, D. (1997). An electromyographic comparison of abdominal muscle synergies during curl and double straight leg lowering exercises with control of the pelvic position. *Spine*, 22, 1873-1879.
- Shirado, O.; Ito, T.; Kaneda, K. y Strax, T. (1995a). Flexion-relaxation phenomenon in the back muscles. *American Journal of Physical Medicine and Rehabilitation*, 74, 139-144.
- Shirado, O.; Ito, T.; Kaneda, K. y Strax, T.E. (1995b). Electromyographic analysis of four techniques for isometric trunk muscle exercises. *Archives of Physical Medicine and Rehabilitation*, 76, 225-229.
- Shirazi-Adl, A.; Ahmed, A.M. y Shrivastava, S.C. (1986). A finite element study of a lumbar motion segment subjected to pure sagittal plane moments. *Journal of Biomechanics*, 19(4), 331-350.
- Shrier, I. (1999). Stretching before exercise does not reduce the risk of local muscle injury: a critical review of the clinical and basic science literature. *Clinical Journal of Sport Medicine*, 9(4), 221-227.
- Sihvonen, T. (1997). Flexion relaxation of the hamstring muscles during lumbar-pelvic rhythm. *Archives of Physical Medicine and Rehabilitation*, 78, 486-490.
- Sihvonen, T.; Partanen, J.; Hänninen, O. y Soimakallio, S. (1991). Electric behavior of low back muscles during lumbar pelvic rhythm in low back pain patients and healthy controls. *Archives of Physical Medicine and Rehabilitation*, 72, 1080-1087.
- Simunic, I.; Broom, D. y Robertson, P. (2001). Biomechanical factors influencing nuclear disruption of the intervertebral disc. *Spine*, 26(11), 1223-1230.
- Sjölie, A.N. y Ljunggren, A.E. (2001). The significance of high lumbar mobility and low lumbar strength for current and future low back pain in adolescents. *Spine*, 26(23), 2629-2636.
- Smith, C.A. (1994). The warm-up procedure: to stretch or not to stretch. A brief review. *Journal of Orthopaedic and Sports Physical Therapy*, 19(1), 12-17.
- Smith, L.L.; Brunetz, M.H.; Chenier, T.C.; McCammon, M.R.; Houmard, J.A.; Franklin, M.E. y Israel, R.G. (1993). The effects of static and ballistic stretching on delayed onset muscle soreness and creatine kinase. *Research Quarterly for Exercise and Sports*, 64(1), 103-107.
- Smrcina, C.M. (1991). Stress fractures in athletes. *The Nursing Clinics of North America*, 26(1), 159-166.



- Snook, S.H.; Webster, B.S.; McGorry, R.W.; Fogleman, M.T. y McCann, K.B. (1998). The reduction of chronic non-specific low back pain through the control of early morning lumbar flexion: a randomized controlled trial. *Spine*, 23, 2601-2607.
- Snook, S.H.; Webster, B.S. y McGorry, R.W. (2002). The reduction of chronic, nonspecific low back pain through the control of early morning lumbar flexion: 3 year follow up. *Journal of Occupational Rehabilitation*, 12(1), 13-19.
- Soler, T. y Calderón, C. (2000). The prevalence of Spondylolysis in the Spanish Elite Athlete. *The American Journal of Sports Medicine*, 28(1), 57-62.
- Solomonko, V. (1988). Assouplissement et mise en train du sportif grâce au "stretching". *Annales de Kinésithérapie*, 15, 1-2, 45-48.
- Solomonow, M.; Zhou, B.; Harris, M.; Lu, Y. y Baratta, R.V. (1998). The ligamento-muscular stabilizing system of the spine. *Spine*, 23(23), 2552-2562.
- Solomonow, M.; Zhou, B.; Barratta, R.V.; Lu, Y. y Harris, M. (1999). Biomechanics on increased exposure to lumbar injury caused by cyclic loading: part 1. Loss of reflexive muscular stabilization. *Spine*, 24(23), 2426-2441.
- Solomonow, M.; Zhou, B.; Baratta, R.V.; Zhu, M. y Lu, Y. (2002). Neuromuscular disorders associated with static lumbar flexion: a feline model. *Journal of Electromyography and Kinesiology*, 12, 81-90.
- Sölderborn, S. A. (1982). *Le stretchind du sportif: entraînement à la mobilité musculaire*. Paris: Chiron.
- Sorhagen, O. y Harms-Ringdahl, K. (1995). Influence of weight and frequency on thigh and lower trunk motion during repetitive lifting employing stoop and squat techniques. *Clinical Biomechanics*, 10(3), 122-127.
- Sparto, P.J. y Parnianpour, M. (1998). Estimation of trunk muscle forces and spinal loads during fatiguing repetitive trunk exertions. *Spine*, 23, 2563-2573.
- Spring, H. (1988). Qu'apporte l'stretching? *Annales de Kinésithérapie*, 15, 1-2, 41-43.
- Stamford, B. (1984). Flexibility and stretching. *The Physician and Sportsmedicine*, 12, 2, 171.
- Stamford, B. (1998). Weight training basics part 2: a sample program. *The Physician and Sportsmedicine*, 26(3), 91-92.



- Standaert, C.J. y Herring, S.A. (2000). Spondylolysis: a critical review. *British Journal of Sports Medicine*, 34, 415-422.
- Starkey, D.B.; Pollock, M.L.; Ishida, Y.; Welsch, M.A.; Brechue, W.F.; Graves, J.E. y Feigenbaum, M.S. (1996). Effect of resistance training volumen on strength and muscle thickness. *Medicine and Science in Sports and Exercise*, 28(10), 1311-1320.
- Stewart, I.B. y Sleivert, G.G. (1998). The effect of warm-up intensity on range of motion and anaerobic performance. *Journal of Orthopaedic and Sports Physical Therapy*, 27(2), 154-161.
- Stokes, I.A.; Gardner-Morse, M.; Henry, S.M. y Badger, G.J. (2000). Decrease in trunk muscular response to perturbation with preactivation of lumbar spinal musculature. *Spine*, 25(15), 1957-1964.
- Stokes, I.A.F.; Gardner-Morse, M. y Norton, D. (1998). Preactivation of lumbar spinal musculature decreases trunk flexibility and muscular response perturbation. *North American Congress on Biomechanics*. Waterloo, 14-18 Agosto.
- Stone, M.H.; Fleck, S.J.; Triplett, N.T. y Kraemer, W.J. (1991). Health and performance related potential of resistance training. *Sports Medicine*, 11(4), 210-231.
- Storer, T.W. (2001). Exercise in chronic pulmonary disease: resistance exercise prescription. *Medicine and Science in Sports and Exercise*, 33(suppl. 7), S680-S692.
- Straker, L. y Duncan, P. (2000). Psychophysical and psychosocial comparison of squat and stoop lifting by young females. *Australian Journal of Physiotherapy*, 46(1), 27-32.
- Strickler, T.; Malone, T. y Garrett, W.E. (1990). The effects of passive warming on muscle injury. *The American Journal of Sports Medicine*, 18(2), 141-145.
- Stubbs, M.; Harris, M.; Solomonow, M.; Zhou, B.; Lu, Y. y Baratta, R.V. (1998). Ligamento-muscular protective reflex in the lumbar spine of the feline. *Journal of Electromyographic and Kinesiology*, 8, 197-204.
- Sullivan, M.K.; DeJulia, J.J. y Worrell, T.W. (1992). Effect of pelvic position and stretching method on hamstring muscle flexibility. *Medicine and Science in Sports and Exercise*, 24(12), 1383-1389.
- Tanaka, N.; An, H.S.; Lim, T.H.; Fujiwara, A.; Jeon, C.H. y Haughton, V.M. (2001). The relationship between disc degeneration and flexibility of the lumbar spine. *The Spine Journal*, 1, 47-56.



- Tercedor, P. (1995). Higiene postural. Educación de la postura y prevención de las anomalías en el contexto escolar. *Habilidad motriz*, 6, 44-49.
- Tercedor, P. (1998). *Estudio sobre la relación entre actividad física habitual y condición física-salud en una población escolar de 10 años de edad*. Tesis doctoral. Universidad de Granada.
- Tercedor, P.; Delgado, M. (1998). El sedentarismo en los escolares: estudio de población de 5º curso de educación primaria. En: A. García, F. Ruiz y A.J. Casimiro (Coords.). *La enseñanza de la Educación Física y el Deporte escolar. Actas II Congreso Internacional* (pp. 277-280). Almería: Instituto Andaluz del Deporte.
- Tercedor. P. (2001). *Actividad física, condición física y salud*. Sevilla: Wanceulen.
- Tesh, K.M.; Dunn, J.S. y Evans, J.H. (1987). The abdominal muscles and vertebral stability. *Spine*, 12, 501-508.
- Thompson, C.W. y Floyd, R.T. (1996). *Manual de kinesiología estructural*. Barcelona: Paidotribo.
- Torre, E. (1998). La actividad físico-deportiva extraescolar y su interrelación con el área de Educación Física en el alumnado de Enseñanzas Medias. *Tesis Doctoral*. Universidad de Granada.
- Torres, J.; Rivera, E. y Trigueros, C. (1999). Pensamientos, creencias y conocimientos sobre el término fitness. Una propuesta didáctica. En: F. Salinas (Coord.). *La actividad física y su práctica orientada hacia la salud* (pp. 261-267). Granada: CSI-CSIF.
- Toussaint, H.M.; De Winter, A.F.; De Haas, Y.; De Looze, M.P.; Van Dieën, J.H. y Kingma, I. (1995). Flexion relaxation during lifting: implications for torque production by muscle activity and tissue strain at the lumbo-sacral joint. *Journal of Biomechanics*, 28(2), 199-210.
- Trafimow, J.H.; Schipplein, O.D.; Novak, G.J. y Andersson, G.B. (1993). The effects of quadriceps fatigue on the technique of lifting. *Spine*, 18(3), 364-367.
- Tribastone, F. (1991). *Compendio de Gimnasia Correctiva*. Barcelona: Paidotribo.
- Tsuboi, T.; Satou, T.; Egawa, K.; Izumi, Y. y Miyazaki, M. (1994). Spectral analysis of electromyogram in lumbar muscles: fatigue induced endurance contraction. *European Journal of Applied Physiology and Occupational Physiology*, 69(4), 361-366.



- Tsuzuku, S.; Shimokata, H.; Ikegami, Y.; Yabe, K. y Wasnich, R.D. (2001). Effects of high versus low intensity resistance training on bone mineral density in young males. *Calcified Tissue International*, 68(6), 342-347.
- Tveit, P.; Daggfeldt, K.; Hetland, S. y Thorstensson, A. (1994). Erector spinae lever arm length variations with changes in spinal curvature. *Spine*, 19(2), 199-204.
- Van Dieën, J.H.; Hoozemans, M.J.M. y Toussaint, H.M. (1999). Stoop or squat: a review of biomechanical studies on lifting technique. *Clinical Biomechanics*, 14, 685-696.
- Van Dieën, J.H.; Van der Burg, P.; Raaijmakers, T.A. y Toussaint, H.M. (1998). Effects of repetitive lifting on kinematics: inadequate anticipatory control or adaptive changes?. *Journal of Motor Behavior*, 30, 20-32.
- Van Mechelen, W.V.; Hlobil, H.; Kemper, H.C.G.; Voorn, W.J. y Jongh, H.R. (1993). Prevention of running injuries by warm-up, cool-down, and stretching exercises. *The American Journal of Sports Medicine*, 21(5), 711-719.
- Ventura, N. (1986). Las desviaciones de la columna vertebral. *Medicina Integral*, 8, 10, 461-467.
- Vera, F.J.; Grenier, S.G. y McGill, S.M. (2000). Abdominal muscle response during curl-ups on both stable and labile surfaces. *Physical Therapy*, 80(6), 564-569.
- Vera, F.J. y Sarti, M.A. (1999). Manipulación social en la actividad físico-deportiva. *La revistilla*, 2, 25-29.
- Videman, T. y Battie, M.C. (2001). The influence of occupation on lumbar degeneration. *4th Interdisciplinary World Congress on Low Back & Pelvic Pain* (pp. 64-72). Montreal.
- Villarroya, A.; Nerín, S.; Marín, M.; Moros, T. y Marco, C. (1999). Cargas excesivas y mecanismos de lesión deportiva. *Archivos de Medicina del Deporte*, XVI (70), 173-179.
- Vucetic, N. y Svensson, O. (1996). Physical signs in lumbar disc hernia. *Clinical Orthopaedics and Related Research*, 333, 192-201.
- Vujnovich, A. L. y Dawson, N. J. (1991). The effect of therapeutic muscle stretch on neural processing. *The Journal of Orthopaedic and Sport Physical Therapy*, 20, 3, 145-153.
- Waddell, G.; Somerville, D.; Henderson, I. y Newton M. (1992). Objective clinical evaluation of physical impairment in chronic low back pain. *Spine*, 17, 617-628.



- Warden, S.J.; Wajswelner, H. y Bennell, K.L. (1999). Comparison of Abshaper and conventionally performed abdominal exercises using surface electromyography. *Medicine and Science in Sports and Exercise*, 31(11), 1656-1664.
- Watson, P.J.; Booker, C.K.; Main, C.J. y Chen, A.C.N. (1997). Surface electromyography in the identification of chronic low back pain patients: the development of the flexion relaxation ratio. *Clinical Biomechanics*, 12(3), 165-171.
- Weckerle K. (1988). Stretching. *Revista de entrenamiento deportivo*, 2(1), 25-28.
- Weckerle, K. (1989). Los músculos isquiotibiales. *Revista de entrenamiento deportivo*, 3, 1, 14-19.
- Weineck J. (1988). *Entrenamiento óptimo*. Barcelona: Hispano Europea.
- Weiss, L y Creep, R.O. (1982). *Histología*. Barcelona: El Ateneo.
- Welbergen, E.; Kemper, H.C.; Knibbe, J.J.; Toussaint, H.M. y Clysen, L. (1991). Efficiency and effectiveness of stoop and squat lifting at different frequencies. *Ergonomics*, 34(5), 613-624.
- Welsch, M.A.; Pollock, M.L.; Brechue, W.F. y Graves, J.E. (1994). Using the exercise test to develop the exercise prescription in health and disease. *Primary care*, 21(3), 589-609.
- Werner, G.T. y Nelles, M. (1996). *La mejor guía para mantener su espalda joven*. Barcelona: Integral.
- Westcott, W.L.; Winett, R.A.; Anderson, E.S.; Wojcik, J.R.; Loud, R.L.; Cleggett, E. y Glover, S. (2001). Effects of regular and slow speed resistance training on muscle strength. *Journal of Sports Medicine and Physical Fitness*, 41(2), 154-158.
- Wetzel, F.T. y Donelson, R. (2003). The role of repeated end-range/pain response assessment in the management of symptomatic lumbar discs. *The Spine Journal*, 3, 146-154.
- Wheater, P.R.; Burkitt, H.G. y Daniel V.G. (1984). *Histología funcional*. Barcelona: Jims.
- Wilder, D.G. (1993). The biomechanics of vibration and low back pain. *American Journal of Industrial Medicine*, 23(4), 577-588.
- Wilder, D.G.; Aleksiev, A.R.; Magnusson, M.L.; Pope, M.H.; Spratt, K.F. y Goel, V.K. (1996). Muscular response to sudden load. A tool to evaluate fatigue and rehabilitation. *Spine*, 21(22), 2628-2639.



- Wilder, D.G. y Pope, M.H. (1996). Epidemiological and aetiological aspects of low back pain in vibration environments - an update. *Clinical Biomechanics*, 11(2), 61-73.
- Wilke, H.J.; Neef, P.; Caimi, M.; Hoogland, T. y Claes, L.E. (1999). New in vivo measurements of pressures in the intervertebral disc in daily life. *Spine*, 24(8), 755-762.
- Wilke, H.J.; Neef, P.; Hinz, B.; Seidel, H. y Claes, L.E. (2001). Intradiscal pressure together with anthropometric data - a data set for the validation of models. *Clinical Biomechanics*, 1, S111-S126.
- Wilke, H.J.; Wolf, S.; Claes, L.E.; Arand, M. y Wiesend, A. (1995). Stability increase of the lumbar spine with different muscle groups. A biomechanical in vitro study. *Spine*, 20(2), 192-198.
- Williford, H.N.; East, J.B.; Smith, F.H. y Burry, L.A. (1986). Evaluation of warm-up for improvement in flexibility. *American Journal of Sports Medicine*, 14(4), 316-319.
- Willner, S. (1981). Spinal pantograph: a non invasive technique for describing kyphosis and lordosis in the thoracolumbar spine. *Acta Orthopaedica Scandinavica*, 52, 525-529.
- Winett, R.A. y Carpinelli, R.N. (2001). Potential health related benefits of resistance training. *Preventive Medicine*, 33(5), 503-513.
- Wirhed, R. (1996). Anatomía deportiva. En: J. Ahonen, T. Lahtinen, M. Sandstróm, G. Pogliani y R. Wirhed (Coords.). *Kinesiología y anatomía aplicada a la actividad física*. Barcelona: Paidotribo.
- Wisleder, D. y Zatsiorsky, V. (1998). Estimation of additive muscle force during axial spine compression with surface EMG. *North American Congress on Biomechanics*. Waterloo, 14-18 Agosto.
- Wretenberg, P.; Feng, Y. y Arborelius, U.P. (1996). High-and low-bar squatting techniques during weight-training. *Medicine and Science in Sports and Exercise*, 28(2), 218-224.
- Ybáñez, D.; Monfort, M.; López, E.; Lisón, J.F. y Sarti, M.A. (1999). Flexión activa de cadera e intensidad de contracción del rectus abdominis en dos ejercicios de fortalecimiento abdominal. *Revista de la Sociedad Valenciana de Reumatología*, 1(4), 18.
- Yingling, V.R.; Callaghan, J.P. y McGill, S.M. (1997). Dynamic loading affects the mechanical properties and failure site of porcine spines. *Clinical Biomechanics*, 12(5), 301-305.



- Yingling, V.R. y McGill, S.M. (1999a). Mechanical properties and failure mechanics of the spine under posterior shear load: Observations from a porcine model. *Journal of Spinal Disorders*, 12 (6), 501-508.
- Yingling, V.R. y McGill, S.M. (1999b). Anterior shear of spinal motion segments. Kinematics, kinetics, and resultant injuries observed in a porcine model. *Spine*, 24(18), 1882-1889.
- Yingling, V.R.; Callaghan, J.P. y McGill, S.M. (1999c). The porcine cervical spine as a model of the human lumbar spine: an anatomical, geometric and functional comparison. *Journal of Spinal Disorders*, 12(5), 415-423.
- Yoganandan, N.; Ray, G.; Pintar, F.A.; Myklebust, J.B. y Sances, A. (1989). Stiffness and strain energy criteria to evaluate the threshold of injury to an intervertebral joint. *Journal of Biomechanics*, 22(2), 135-142.
- Youdas, J.W.; Garrett, T.R.; Harmsen, S.; Suman, V.J. y Carey, J.R. (1996). Lumbar lordosis and pelvic inclination of asymptomatic adults. *Physical Therapy*, 76(10), 1066-1081.
- Young, J.L.; Press, J.M. y Herring, S.A. (1997). The disc at risk in athletes: perspectives on operative and nonoperative care. *Medicine and Science in Sports and Exercise*, 29(7)suppl, 222-232.
- Zander, T.; Rohlmann, A.; Calisse, J. y Bergmann, G. (2001). Estimation of muscle forces in the lumbar spine during upper-body inclination. *Clinical Biomechanics*, 16(Suppl.), S73-S80.
- Zink, A.J.; Whiting, W.C.; Vincent, W.J. y McLaine, A.J. (2001). The effects of a weight belt on trunk and leg muscle activity and joint kinematics during the squat exercise. *Journal of Strength and Conditioning Research*, 15(2), 235-240.