

PhysioNovo gebruikte literatuur:

Abrahamson D, Roberts SM, Wilson PD (1934) Relaxation of the pelvic joints in pregnancy. *Surg Gynecol Obstet.* 1934;58:595–613

Aldabe D, Milosavljevic S, Dawn Bussey M (2012) Is pregnancy related pelvic girdle pain associated with altered kinematic, kinetic and motor control of the pelvis? A systematic review *Eur Spine J.* 2012 Sep; 21(9): 1777–1787. doi: 10.1007/s00586-012-2401-1. PMID: PMC3459120. PMID: 22718046

Aminoff MJ, Daroff RB (2014) *Encyclopedia of the neurological sciences*, 2. Aufl. Elsevier, S 397

Ascani E, Bartolozzi P, Logroscino CA, Marchetti PG, Ponte A, Savini R, Travaglini F, Binazzi R, Di Silvestre M (1986) Natural history of untreated idiopathic scoliosis after skeletal maturity. *Spine (Phila Pa 1976).* 1986 Oct;11(8):784-9.

Assmus H (2002) Invited commentary on the article of M Stöhr: entrapment neuropathies - quality requirements for neurological and neurophysiological diagnosis]. *Handchir Mikrochir Plast Chir.* 2002 Sep;34(5):275-6; discussion 335-6

Assmus H (2000) Tendovaginitis stenosans: a frequent complication of carpal tunnel syndrome. *Nervenarzt.* 2000 Jun;71(6):474-6.

Barnhardt T, Stiehl JB (1996) Hip fusion in young adults. *Orthopedics*, 1996. 19(4): p. 303-6.

Balagué F, Pellisé F (2016) Adolescent idiopathic scoliosis and back pain. *Scoliosis and Spinal Disorders.* 11. 10.1186/s13013-016-0086-7.

Baron R, Tölle TR (2019) Deutscher Forschungsverbund Neuropathischer Schmerz (DFNS) – Pathophysiologie, Prävention und Therapie. http://www.neuro.med.tu-muenchen.de/dfns/uns/portrait.html#neuropathischer_Schmerz Zugriff: 12 Januar 2016

Bayam L, Ahmad MA, Naqui SZ, Chouhan A, Funk L (2011) Pain mapping for common shoulder disorders. *Am J Orthop (Belle Mead NJ).* 2011 Jul;40(7):353-8.

Bogduk N, Tynan W, Wilson AS (1980) The nerve supply to the human lumbar intervertebral discs. *J. Anat.* (1981), 132, 1, pp. 39-56
“Degenerative disc disease’ conveys to patients that they are disintegrating, which they are not. Moreover, disc degeneration, spondylosis and spinal Osteoarthrosis correlate poorly with pain and may be totally asymptomatic.”

Bogduk N, Windsor M, Inglis A (1988) The innervation of the cervical intervertebral discs. *Spine (Phila Pa 1976)* 13 (1): 2–8

Bogduk N, Twomy LT, von Schottker-Koniger T, Ferber-Busse B (2000) *Klinische Anatomie von Lendenwirbelsäule und Sakrum*, 3. Aufl. Springer, Berlin, Heidelberg

Bogduk N (2000) What's in a name? The labelling of back pain. *Medical Journal of Australia*. 2000;173(8):400–401. PainSci #56046.??

Boukal C (2012) Bandscheibenvorfälle: zu häufig operiert. *Forum Gesundheit*.
<https://www.forumgesundheit.at/cdscontent/?contentid=10007.689661>

Boos N, Rieder R, Schade V, Spratt K F, Semmer N, Aebi M (1995) The diagnostic accuracy of magnetic resonance imaging, work perception and psychosocial factors in identifying symptomatic disc herniations. *Spine*, 20, 2613-2625.

Borstad JD, Ludewig PM (2005) The effect of long versus short pectoralis minor resting length on scapular kinematics in healthy individuals. *J Orthop Sports Phys Ther*. 2005 Apr; 35(4):227-38.

Brinjikji W, Luetmer PH, Comstock B, Bresnahan BW, Chen LE, Deyo RA, Halabi S, Turner JA, Avins AL, James K, Wald JT, Kallmes DF, Jarvik (2015) Systematic literature review of imaging features of spinal degeneration in asymptomatic populations. *AJNR Am J Neuroradiol*. 2015 Apr;36(4):811-6. doi: 10.3174/ajnr.A4173. Epub 2014 Nov 27.

Brotz D, Weller M (2008) Diagnostik und Therapie bei Bandscheibenschaden: Neurologie, Physiotherapie und das McKenzie-Konzept, 3. Aufl. Thieme, Stuttgart, S 7

Buttagat V, Taepa N, Suwannived N, Rattanachan N (2016) Effects of scapular stabilization exercise on pain related parameters in patients with scapulocostal syndrome: A randomized controlled trial. *J Bodyw Mov Ther*. 2016 Jan;20(1):115-122. doi: 10.1016/j.jbmt.2015.07.036. PMID: 26891646. Epub 2015 Jul 26.

Buyruk HM, Stam HJ, Snijders CJ, Laméris JS, Holland WP, Stijnen TH (1999) Measurement of sacroiliac joint stiffness in peripartum pelvic pain patients with Doppler imaging of vibrations (DIV). *Eur J Obstet Gynecol Reprod Biol*. 1999 Apr;83(2):159-63.

Celiktas M, Kose O, Turan A, Guler F, Ors C, Togrul E (2017) Conversion of hip fusion to total hip arthroplasty: clinical, radiological outcomes and complications in 40 hips. *Arch Orthop Trauma Surg*. 2017 Jan;137(1):119-127. doi: 10.1007/s00402-016-2597-3. Epub 2016 Nov 29.

Chenot JF, Greitemann B, Kladny B, Petzke F, Pflingsten M, Schorr SG (2017) Clinical practice guideline: Non-specific low back pain. *Dtsch Arztebl Int* 2017; 114: 883–90. DOI: 10.3238/arztebl.2017.0883

Cheung KM, Karppinen J, Chan D, Ho DW, Song YQ, Sham P, Cheah KS, Leong JC, Luk KD (2009) Prevalence and pattern of lumbar magnetic resonance imaging changes in a population study of one thousand forty-three individuals. *Spine (Phila Pa 1976)*. 2009 Apr 20;34(9):934-40. doi: 10.1097/BRS.0b013e3181a01b3f.

Chimenti PC, Drinkwater CJ, Li W, Lemay CA, Franklin PD, O'Keefe RJ (2016) Factors Associated With Early Improvement in Low Back Pain After Total Hip Arthroplasty: A Multi-Center Prospective Cohort Analyses. *J Arthroplasty*. 2016 Jan;31(1):176-9. doi: 10.1016/j.arth.2015.07.028.

Cibulka MT, Sinacore DR, Cromer GS, Delitto A (1998) Unilateral hip rotation range of motion asymmetry in patients with sacroiliac joint regional pain. *Spine (Phila Pa 1976)*. 1998 May 1; 23(9):1009-15.

Clabbers KM, Kelly JD, Bader D, Eager M, Imhauser C, Siegler S, Moyer RA (2007) Effect of posterior capsule tightness on glenohumeral translation in the late-cocking phase of pitching. *J Sport Rehabil*. 2007 Feb;16(1):41-9.

Clohisy JC, Knaus ER, Hunt DM, Leshner JM, Harris-Hayes M, Heidi Prather H (2009) Clinical Presentation of Patients with Symptomatic Anterior Hip Impingement. *Clin Orthop Relat Res*. 2009 Mar; 467(3): 638–644. Published online 2009 Jan 7. doi: 10.1007/s11999-008-0680-y. PMID: 19130160

Cohen SP, Mao J (2014) Neuropathic pain: mechanisms and their clinical implications. *Z BMJ* 2014; 348:f7656

Conduah AH, Baker CL, III, MD, Baker CL Jr. (2010) Clinical Management of Scapulothoracic Bursitis and the Snapping Scapula. *Sports Health*. 2010 Mar; 2(2): 147–155. doi: 10.1177/1941738109338359. PMID: 23015932

Culham E, Peat M (1993) Functional anatomy of the shoulder complex. *J Orthop Sports Phys Ther*. 1993 Jul; 18(1):342-50.

Culvenor AG, Øiestad BE, Hart HF, Stefanik JJ, Guermazi A, Crossley KM (2018) Prevalence of knee osteoarthritis features on magnetic resonance imaging in asymptomatic uninjured adults: a systematic review and meta-analysis. *Br J Sports Med*. 2019 Oct;53(20):1268-1278. doi: 10.1136/bjsports-2018-099257. Epub 2018 Jun 9.

Damen L, Buyruk HM, Güler-Uysal F, Lotgering FK, Snijders CJ, Stam HJ (2002) The prognostic value of asymmetric laxity of the sacroiliac joints in pregnancy-related pelvic pain. *Spine (Phila Pa 1976)*. 2002 Dec 15;27(24):2820-4.

DeAngelis JP, Hertz B, Wexler MT, Patel N, Walley KC, Harlow ER, Manoukian OS, Masoudi A, Vaziri A, Ramappa AJ, Nazarian A (2015) Posterior Capsular Plication Constrains the Glenohumeral Joint by Drawing the Humeral Head Closer to the Glenoid and Resisting Abduction *Orthop J Sports Med*. 2015 Aug; 3(8): 2325967115599347. Published online 2015 Aug 18. doi: 10.1177/2325967115599347 PMID: 26535390

Deutsch A, Altchek DW, Schwartz E, Otis JC, Warren RF (1996) Radiologic measurement of superior displacement of the humeral head in the impingement syndrome. *J Shoulder Elbow Surg*. 1996 May-Jun; 5(3):186-93.

Devin CJ, McCullough KA, Morris BJ, Yates AJ, Kang JD (2012) Hip-spine syndrome. *J Am Acad Orthop Surg*. 2012 Jul;20(7):434-42. doi:10.5435/JAAOS-20-07-434
Ellison JB, Rose SJ, Sahrman SA (1990) Patterns of hip rotation range of motion: a comparison between healthy subjects and patients with low back pain. *Phys Ther*. 1990 Sep; 70(9):537-41

- Endo K, Yukata K, Yasui N (2004) Influence of age on scapulo-thoracic orientation. *Clin Biomech (Bristol, Avon)*. 2004 Dec; 19(10):1009-13.
- Eneqvist T, Nemes S, Brisby H, Fritzell P, Garellick G, Rolfson O (2017) Lumbar surgery prior to total hip arthroplasty is associated with worse patient-reported outcomes. *Bone Joint J*. 2017 Jun;99-B(6):759-765. doi: 10.1302/0301-620X.99B6.BJJ-2016-0577.R2.
- Finley MA, Lee RY (2003) Effect of sitting posture on 3-dimensional scapular kinematics measured by skin-mounted electromagnetic tracking sensors. *Arch Phys Med Rehabil*. 2003 Apr;84(4):563-8. PMID: 12690596 DOI: 10.1053/apmr.2003.50087
- Flatow EL, Soslowky LJ, Ticker JB, Pawluk RJ, Hepler M, Ark J, Mow VC, Bigliani LU (1994) Excursion of the rotator cuff under the acromion. Patterns of subacromial contact. *Am J Sports Med*. 1994 Nov-Dec; 22(6):779-88.
- Frank JM, Harris JD, Erickson BJ, Slikker W 3rd, Bush-Joseph CA, Salata MJ, Nho SJ (2015) Prevalence of Femoroacetabular Impingement Imaging Findings in Asymptomatic Volunteers: A Systematic Review. *Arthroscopy*. 2015 Jun;31(6):1199-204. doi: 10.1016/j.arthro.2014.11.042. Epub 2015 Jan 28.
- Geraedts P (2018) *Physiotherapeutisches Training bei Rückenschmerzen – Motorische Befunderhebung und Behandlung*. Springer Verlag Berlin
- Gerber C, Galantay RV, Hersche O (1998) The pattern of pain produced by irritation of the acromioclavicular joint and the subacromial space. *J Shoulder Elbow Surg*. 1998 Jul-Aug;7(4):352-5.
- Girish G, Lobo LG, Jacobson JA, Morag Y, Miller B, Jamadar DA (2011) Ultrasound of the shoulder: asymptomatic findings in men. *AJR Am J Roentgenol*. 2011 Oct;197(4):W713-9. doi: 10.2214/AJR.11.6971.
- Gombatto SP, Collins DR, Sahrman SA, Engsborg JR, Van Dillen L.R (2006) Gender differences in pattern of hip and lumbopelvic rotation in people with low back pain. *Clin Biomech (Bristol, Avon)*, 2006. 21(3): p. 263-71.
- Griegel-Morris P, Larson K, Mueller-Klaus K, Oatis CA. (1992) Incidence of common postural abnormalities in the cervical, shoulder, and thoracic regions and their association with pain in two age groups of healthy subjects. *Phys Ther*. 1992 Jun;72(6):425-31. DOI: 10.1093/ptj/72.6.425
- Gumina S, Di Giorgio G, Postacchini F, Postacchini R (2008) Subacromial space in adult patients with thoracic hyperkyphosis and in healthy volunteers. *La Chirurgia degli organi di movimento*. 91. 93-6. 10.1007/s12306-007-0016-1.
- Harryman DT, Sidles JA, Clark JM, McQuade KJ, Gibb TD, Matsen FA (1990) Translation of the humeral head on the glenoid with passive glenohumeral motion. *J Bone Joint Surg Am*. 1990 Oct;72(9):1334-43.
- Hecht S (2012) *Evaluation einer multimodalen Präventivintervention: Die Neue Rückenschule*. Dissertation, technische Universität Chemnitz, i.Br.

Helenius I, Diarbakerli E, Grauers A, Lastikka M, Oksanen H, Pajulo O, Löyttyniemi E, Manner T, Gerdhem P, Helenius L (2019) Back Pain and Quality of Life After Surgical Treatment for Adolescent Idiopathic Scoliosis at 5-Year Follow-up: Comparison with Healthy Controls and Patients with Untreated Idiopathic Scoliosis. *J Bone Joint Surg Am* 2019;101:1460–6. <https://doi.org/10.2106/JBJS.18.01370>

Hering HE (1884) Über positive Nachschwankung des Nervenstromes nach elektrischer Reizung. In: S.-B. Akad. Wiss., Wien, math.-naturw. Classe, 89, 137-158;

Hering HE (1884) Ueber Schwankungen des Nervenstromes infolge unipolarer Reizung beim Tetanisieren. In: S.-B. Akad. Wiss., Wien, math.-naturw. Classe, 89, 219-237)

Hickey D, Solvig V, Cavalheri V, Harrold M, Mckenna L (2017) Scapular dyskinesis increases the risk of future shoulder pain by 43% in asymptomatic athletes: a systematic review and meta-analysis. *Br J Sports Med*. 2018 Jan;52(2):102-110. doi: 10.1136/bjsports-2017-097559. Epub 2017 Jul 22.

Hicks GE, Sions JM, Velasco TO (2017) Hip Symptoms, Physical Performance, and Health Status in Older Adults With Chronic Low Back Pain: A Preliminary Investigation. *Arch Phys Med Rehabil*. 2018 Jul;99(7):1273-1278. doi: 10.1016/j.apmr.2017.10.006. Epub 2017 Oct 27.

Hinterwimmer S, Von Eisenhart-Rothe R, Siebert M, Putz R, Eckstein F, Vogl T, Graichen H. (2003) Influence of adducting and abducting muscle forces on the subacromial space width. *Med Sci Sports Exerc*. 2003 Dec;35(12):2055-9. PMID: 14652502 DOI: 10.1249/01.MSS.0000099089.49700.53

Hodges PW, Richardson CA (1996) Inefficient muscular stabilization of the lumbar spine associated with low back pain. A motor control evaluation of transversus abdominis. *Spine (Phila Pa 1976)*. 1996 Nov 15;21(22):2640-50.

Hopkins JT (2002) Within and between session reliability of the peak quadriceps H-reflex. *Med Sci Sports Exerc* 34: 118

Hopkins JT, Ingersoll CD (2000) Arthrogenic muscle inhibition: a limiting factor in joint rehabilitation. *J Sport Rehabil* 9: 135–159

Horre T (2008) Einfluss von Gelenkdysfunktion auf die Muskelfunktion. *Manuelle Therapie* 12: 60–71

Hurley MV, Jones DW, Newham DJ (1994) Arthrogenic quadriceps inhibition and rehabilitation of patients with extensile traumatic knee injuries. *Clin Sci* 86: 305–310

Jensen MC, Brant-Zawadzki MN, Obuchowski N, Modic MT, Malkasian D, Ross JS (1994) Magnetic resonance imaging of the lumbar spine in people without back pain. *N Engl J Med*. 1994 Jul 14;331(2):69-73. DOI: 10.1056/NEJM199407143310201. PMID: 8208267

Jeon NY, Chon SC (2018) Effect of glenohumeral stabilization exercises combined with scapular stabilization on shoulder function in patients with shoulder pain: A randomized controlled experimenter-blinded study. *J Back Musculoskelet Rehabil.* 2018; 31(2):259-265. doi: 10.3233/BMR-169612. PMID: 29278869

Johnson G, Bogduk N, Nowitzke A, House D (2009) Anatomy and actions of the trapezius muscle. *Clin Biomech (Bristol, Avon).* 1994 Jan; 9(1):44-50.

Jung R (1953) Allgemeine Neurophysiologie. In: Neurologie (1953) erster Teil bearbeitet von R.Brun, O.Gagel, F.Hiller, H.Jantz, R.Jung, F.Laubenthal, F.LÜthy, T.Riechert, B.Schulz. 1953

Kahn C (2002) Use of triamcinolone hexacetonide for the treatment of osteoarthritis of the hip: comment on the letter by Margules. *Arthritis Rheum.* 2002 Sep;46(9):2546-7; author reply 2547. PMID: 12355514. DOI: 10.1002/art.10430

Kandel ER, Schwarz JH, Jessel ZM (2000) Principles of neural science, 4. Aufl. McGraw-Hill

Kang JI, Choi HH, Jeong DK, Choi H, Moon YJ, Park JS (2018) Effect of scapular stabilization exercise on neck alignment and muscle activity in patients with forward head posture. *J Phys Ther Sci.* 2018 Jun;30(6):804-808. doi: 10.1589/jpts.30.804. PMID: 29950768 PMCID: PMC6016298

~~Kankaanpää M, Taimela S, Airaksinen O, Hänninen O (1999) The Efficacy of active rehabilitation in chronic low back pain. Effect on pain intensity, self-experienced disability, and lumbar fatigability. *Spine (Phila Pa 1976)* 24(10): 1034-42~~

Kapandji IA (2006) Funktionelle Anatomie der Gelenke: schematisierte und kommentierte Zeichnungen zur menschlichen Biomechanik. Georg Thieme, Stuttgart 2006, Kap. Einfluss der Körperpositionen auf die Verbindungen des Beckengürtels, S. 62 ff.

Karol LA, Halliday SE, Gourineni P (2000) Gait and function after intra-articular arthrodesis of the hip in adolescents. *J Bone Joint Surg Am,* 2000. 82(4): p. 561-9.

Kebaetse M, McClure P, Pratt NA (1999) Thoracic position effect on shoulder range of motion, strength, and three-dimensional scapular kinematics. *Arch Phys Med Rehabil.* 1999 Aug; 80(8):945-50.

Keller K, Engelhardt M (2017) AMI – Konsequenzen für die Rehabilitation. *Manuelle Therapie* 21 (2): 62–65

Kim C, Nevitt MC, Niu J, Clancy MM, Lane NE, Link TM, Vlad S, Tolstykh I, Jungmann PM, Felson DT, Guermazi A (2015) Association of hip pain with radiographic evidence of hip osteoarthritis: diagnostic test study. *BMJ.* 2015 Dec 2;351:h5983. doi: 10.1136/bmj.h5983.

Kjaer P, Leboeuf-Yde C, Korsholm L, Sorensen JS, Bendix T (2005) Magnetic resonance imaging and low back pain in adults: a diagnostic imaging study of 40-year-old men and women. *Spine (Phila Pa 1976).* 2005 May 15;30(10):1173-80. DOI:10.1097/01.brs.0000162396.97739.76. PMID: 15897832

Krom de MC, Knipschild PG, Kester AD, Spaans F. Efficacy of provocative tests for diagnosis of carpal tunnel syndrome. *Lancet*. 1990 Feb 17;335(8686):393-5.

Kuhlman KA, Hennessey WJ (1997) Sensitivity and specificity of carpal tunnel syndrome signs. *Am J Phys Med Rehabil*. 1997 Nov-Dec;76(6):451-7.

Labriola JE, Lee TQ, Debski RE, McMahon PJ (2005) Stability and instability of the glenohumeral joint: The role of shoulder muscles, Jr, MD Orthopaedic.
doi:10.1016/j.jse.2004.09.014

Lavignolle B, Vital JM, Senegas J, Destandau J, Toson B, Bouyx P, Morlier P, Delorme G, Calabet A (1983) An approach to the functional anatomy of the sacroiliac joints in vivo. *Anat Clin*. 1983;5(3):169-76.

Lee SW, Kim SY (2015) Comparison of chronic low-back pain patients hip range of motion with lumbar instability. *J Phys Ther Sci*, 2015. 27(2): p. 349-51.

Lefèvre-Colau MM, Nguyen C, Palazzo C, Srour F, Paris G, Vuillemin V, Poiraudreau S, Roby-Brami A, Roren A (2018)
Kinematic patterns in normal and degenerative shoulders. Part II: Review of 3-D scapular kinematic patterns in patients with shoulder pain, and clinical implications. *Ann Phys Rehabil Med*. 2018 Jan; 61(1):46-53. Doi: 10.1016/j.rehab.2017.09.002. Epub 2017 Oct 5.

Lephart SM, Fu FH (2000) Proprioception and neuromuscular control in joint stability, Human Kinetics Pittsburgh USA.

Leshner JM, Dreyfuss P, Hager N, Kaplan M, Furman M (2008) Hip joint pain referral patterns: a descriptive study. *Pain Med*. 2008 Jan-Feb;9(1):22-5. doi: 10.1111/j.1526-4637.2006.00153.x.

Lentell G, Kruse M, Chock B, Wilson K, Iwamoto M, Martin R (2002) Dimensions of the cervical neural foramina in resting and retracted positions using magnetic resonance imaging. *J Orthop Sports Phys Ther*. 2002 Aug;32(8):380-90. Doi: 10.2519/jospt.2002.32.8.380

Lewis JS, Wright C, Green A (2005) Subacromial impingement syndrome: the effect of changing posture on shoulder range of movement. *J Orthop Sports Phys Ther*. 2005 Feb;35(2):72-87. PMID: 15773565 DOI: 10.2519/jospt.2005.35.2.72

Lin JJ, Hanten WP, Olson SL, Roddey TS, Soto-quijano DA, Lim HK, Sherwood AM (2005) Functional activity characteristics of individuals with shoulder dysfunctions. *J Electromyogr Kinesiol*. 2005 Dec; 15(6):576-86.

Linge van B (1989) De zin van een rontgenfoto (Der Sinn eines Rontgenbildes). *The Practitioner*, December 1989

Ludewig PM, Cook TM (2000) Alterations in shoulder kinematics and associated muscle activity in people with symptoms of shoulder impingement. *Phys Ther*. 2000 Mar; 80(3):276-91.

Ludewig PM, Cook TM (2002) Translations of the humerus in persons with shoulder impingement symptoms. *J Orthop Sports Phys Ther.* 2002 Jun;32(6):248-59.

Ludewig PM, Phadke V, Braman JP, Hassett DR, Cieminski CJ, LaPrade RF (2009) Motion of the shoulder complex during multiplanar humeral elevation. *J Bone Joint Surg Am.* 2009 Feb; 91(2):378-89.

Ludewig PM, Reynolds JF (2009) The association of scapular kinematics and glenohumeral joint pathologies. *J Orthop Sports Phys Ther.* 2009 Feb;39(2):90-104. doi: 10.2519/jospt.2009.2808

Lukasiewicz AC, McClure P, Michener L, Pratt N, Sennett B (1999) Comparison of 3-dimensional scapular position and orientation between subjects with and without shoulder impingement. *J Orthop Sports Phys Ther.* 1999 Oct;29(10):574-83; discussion 584-6. PMID: 10560066 DOI: 10.2519/jospt.1999.29.10.574

Luomajoki H, Kool J, de Bruin ED, Airaksinen O (2008) Movement control tests of the low back; evaluation of the difference between patients with low back pain and healthy controls. *BMC Musculoskelet Disord.* 2008 Dec 24;9:170. doi: 10.1186/1471-2474-9-170. DOI: 10.1186/1471-2474-9-170. PMID: 19108735. PMCID: PMC2635372

Luomajoki H, Kool J, de Bruin E-D, Airaksinen O (2010) Improvement in low back movement control, decreased pain and disability, resulting from specific exercise intervention. *BMC Sports Sci Med Rehabil* (2010) 2: 11. <https://doi.org/10.1186/1758-2555-2-11>

Magnetic resonance imaging of the lumbar spine in people without back pain. *N Engl J Med.* 1994 Jul 14;331(2):69-73. DOI: 10.1056/NEJM199407143310201. PMID: 8208267

Mai J, Paxinos G (Hrsg) (2012) , *The Human Nervous System, 3rd Edition*, Academic Press (Elsevier), London UK, Waltham USA, San Diego USA.

Mainka T, Hoffken O, Maier C, Enax-Krumova EK (2015) Erweiterte Diagnostik neuropathischer Schmerzen erfasst kleine Nervenfasern. *InFo Neurologie & Psychiatrie* 11: 46–56. doi: 10.1007/s15005-015-1382-0

Makofsky H, Panicker S, Abbruzzese J et al. Immediate Effect of Grade IV Inferior Hip Joint Mobilization on Hip Abductor Torque: A Pilot Study. *J Manual Manip Ther.* 2007;15(2): 103-111. Doi: <https://doi.org/10.1179/106698107790819927>

Mannion AF, Pulkovski N, Gubler D, Gorelick M, O'Riordan D, Loupas T, Schenk P, Gerber H, Sprott H (2008) Muscle thickness changes during abdominal hollowing: an assessment of between-day measurement error in controls and patients with chronic low back pain. *Eur Spine J.* 2008 Apr;17(4):494-501. doi: 10.1007/s00586-008-0589-x. Epub 2008 Jan 15.

McQuade KJ, Borstad J, de Oliveira AS (2016) Critical and Theoretical Perspective on Scapular Stabilization: What Does It Really Mean, and Are We on the Right Track? *Phys Ther.* 2016 Aug;96(8):1162-9. doi: 10.2522/ptj.20140230. Epub 2016 Feb 4.

Meacham K, Shepherd A, Mohapatra DP, Haroutounian S (2017) Neuropathic Pain: Central vs. Peripheral Mechanisms Z. Curr Pain Headache Rep 2017; 21:28

Messner T (2010) LEidlinie versus Leitlinie, Interpretation am Beispiel des unspezifischen akut-subakuten lumbalen Rückenschmerzes. PT Zeitschrift für Physiotherapeuten 62: 6-20

Müller G (2011) Medizinische Grundlagen. In A. Flothow, H.-D. Kempf, U. Kuhnt, G. Lehmann (Hrsg.), KddR-Manual Neue Rückenschule (S. 10-22). München: Elsevier GmbH.

Mondelli M, Passero S, Giannini F (2001) Provocative tests in different stages of carpal tunnel syndrome. Clin Neurol Neurosurg. 2001 Oct;103(3):178-83.

Nadler SF, Malanga GA, DePrince M, Stitik TP, Feinberg JH (2000) The relationship between lower extremity injury, low back pain, and hip muscle strength in male and female collegiate athletes. Clin J Sport Med. Apr;10(2):89-97.

Naish J en Syndercombe Court D (2015) Medical Sciences, Saunders Elsevier 2. Aufl.

Nakamura J, Konno K, Orita S, Hagiwara S, Shigemura T, Nakajima T, Suzuki T, Akagi R, Ohtori S (2016) Distribution of hip pain in patients with idiopathic osteonecrosis of the femoral head. Mod Rheumatol. 2017 May;27(3):503-507. doi: 10.1080/14397595.2016.1209830. Epub 2016 Jul 26.

Nakashima H, Yukawa Y, Suda K, Yamagata M, Ueta T, Kato F (2015) Abnormal findings on magnetic resonance images of the cervical spines in 1211 asymptomatic subjects. Spine (Phila Pa 1976). 2015 Mar 15;40(6):392-8. doi: 10.1097/BRS.0000000000000775.

Nourbakhsh MR, Arab AM. Relationship between mechanical factors and incidence of low back pain. J Orthop Sports Phys Ther. 2002 Sep;32(9):447-60.

NVI 2017 Kurzfassung, 2. Auflage. Version 1. Träger: Bundesärztekammer, Kassenärztliche Bundesvereinigung, Arbeitsgemeinschaft der Wissenschaften medizinischen Fachgesellschaften,
<https://www.leitlinien.de/mdb/downloads/nvl/kreuzschmerz/kreuzschmerz-2aufl-vers1-kurz.pdf>)

Offierski CM, McNab I (1983) Hip-spine syndrome. Spine (Phila Pa 1976). 1983 Apr;8(3):316-21.

Oonk HHN (1988) Osteo- en Arthro-Kinematika. Henric Graaff van Ijssel, Mildert, Nederweert (NL), S 40–50

Joseph O'Neil, MD, Elizabeth McDonald, BA, Talia Chapman, MD, David Casper, MD, Rachel Shakked, MD, David Pedowitz, MD, MS (2017) Anterior Talofibular Ligament Abnormalities on Routine Magnetic Resonance Imaging of the Ankle. Foot & Ankle Orthopaedics. Volume: 2 issue: 3 <https://doi.org/10.1177/2473011417S000311>

O'Sullivan P (2005) Diagnosis and classification of chronic low back pain disorders: maladaptive movement and motor control impairments as underlying mechanism. *Man Ther.* 2005 Nov;10(4):242-55. Epub 2005 Sep 9. PMID: 16154380 DOI: 10.1016/j.math.2005.07.001

Palmgren T, Grönblad M, Virri J, Käpä E, Karaharju E (1999) An immunohistochemical study of nerve structures in the annulus fibrosus of human normal lumbar intervertebral discs. *Spine (Phila Pa 1976)*. 1999 Oct 15;24(20):2075-9.

Palmieri RM, Ingersoll CD, Hoffman MA (2004) The Hoffmann Reflex: Methodologic Considerations and Applications for Use in Sports Medicine and Athletic Training Research: *J Athl Train.* 2004 Jul-Sep; 39(3): 268–277. PMID: 16558683

Panjabi MM, White AA (2001) *Biomechanics in the Musculoskeletal System*. Churchill Livingstone, Philadelphia, 123-125.

Park KN, Kwon OY, Yi CH, Cynn HS, Weon JH, Kim TH, Choi HS (2016) Effects of Motor Control Exercise Vs Muscle Stretching Exercise on Reducing Compensatory Lumbopelvic Motions and Low Back Pain: A Randomized Trial. *J Manipulative Physiol Ther.* 2016. 39(8): p. 576-585. doi: 10.1016/j.jmpt.2016.07.006.

Phadke V, Camargo P, Ludewig P (2009) Scapular and rotator cuff muscle activity during arm elevation: A review of normal function and alterations with shoulder impingement. *Rev Bras Fisioter.* 2009 Feb 1; 13(1):1-9.

Piazzolla A, Solarino G, Bizzoca D, Montemurro V, Berjano P, Lamartina C, Martini C, Moretti B (2018) Spinopelvic parameter changes and low back pain improvement due to femoral neck anteversion in patients with severe unilateral primary hip osteoarthritis undergoing total hip replacement. *Eur Spine J.* 2018 Jan;27(1):125-134. doi: 10.1007/s00586-017-5033-7. Epub 2017 Mar 16.

Postacchini F (1999) *Lumbar disc herniation*. Springer, Wien

Prather H, Cheng A, Steger-May K, Maheshwari V, Van Dillen L (2017) Hip and Lumbar Spine Physical Examination Findings in People Presenting With Low Back Pain, With or Without Lower Extremity Pain. *J Orthop Sports Phys Ther.* 2017. 47(3): p. 163-172.

Prather H, van Dillen L (2019) A narrative review of the links between the hip and the lumbar spine (hip spine syndrome) as they relate to clinical decision making for patients with lumbopelvic pain. *PM R.* 2019 May 10. doi: 10.1002/pmrj.12187. PMID: 31074168

Prather H, Cheng A, Steger-May K, Maheshwari V, Van Dillen L (2018) Association of Hip Radiograph Findings With Pain and Function in Patients Presenting With Low Back Pain. *PM R.* 2018. 10(1): p. 11-18.

Pulkovski N, Mannion AF, Caporaso F, Toma V, Gubler D, Helbling D, Sprott H (2012) Ultrasound assessment of transversus abdominis muscle contraction ratio during abdominal hollowing: a useful tool to distinguish between patients with chronic low back pain and

healthy controls? *Eur Spine J*. 2012 Aug;21 Suppl 6:S750-9. doi: 10.1007/s00586-011-1707-8. Epub 2011 Mar 31.

Pun S, Kumar D, Lane NE (2015) Femoroacetabular Impingement. *Arthritis Rheumatol*. 2015 Jan; 67(1): 17–27. doi: 10.1002/art.38887. PMID: 25308887. NIHMSID: NIHMS631203. PMID: 25308887

Purves D, Augustine GJ, Fitzpatrick D, Hall WC, LaMantia A-S, McNamara JO, White LE (Eds.) (2007) *Neuroscience (Fourth Edition)*. Sunderland, MA: Sinauer Associates,

Redmond JM, Gupta A, Hammarstedt JE, Stake CE, Domb BG (2014) The hip-spine syndrome: how does back pain impact the indications and outcomes of hip arthroscopy? *Arthroscopy*. 2014 Jul;30(7):872-81. doi: 10.1016/j.arthro.2014.02.033.

Reiman MP, Weisbach PC, Glynn PE (2009) The Hip's Influence on Low Back Pain: A Distal Link to a Proximal Problem. *Journal of Sport Rehabilitation*. 18, 24-32 *Human Kinetics*

Sadeghisani M, Manshadi FD, Kalantari KK, Rahimi A, Namnik N, Karimi MT, Oskouei AE (2015) Correlation between Hip Rotation Range-of-Motion Impairment and Low Back Pain. A Literature Review. *Ortop Traumatol Rehabil*. 2015 Oct;17(5):455-62. doi: 10.5604/15093492.1186813.

Sahrmann SA (2002) Does postural assessment contribute to patient care? *J Orthop Sports Phys Ther*, 2002. 32(8): p. 376-9.

Sandkühler J (2001) Schmerzgedächtnis: Entstehung, Vermeidung und Löschung. *Dtsch Arztebl* 2001; Dt *Ärztebl* 2001; 98 (42): A-2725 - 2340 (Heft 41)

Schlenker BA (2003) Validierung einer quantifizierenden in vivo Darstellung der subchondralen Mineralisierung des Tibiaplateaus. Dissertation, Ludwig-Maximilians-Universität München

Scholtes SA, Gombatto SP, Linda R, Van Dillen LR (2009) Differences in lumbopelvic motion between people with and people without low back pain during two lower limb movement tests. *Clin Biomech (Bristol, Avon)*. 2009 Jan; 24(1): 7–12. doi: 10.1016/j.clinbiomech.2008.09.008

Scholtes SA, Norton BJ, Lang CE, Van Dillen LR. The effect of within-session instruction on lumbopelvic motion during a lower limb movement in people with and people without low back pain. *Manual Therapy*. 2010 doi: 10.1016/j.math.2010.05.003.

Shiravi S, Letafatkar A, Bertozzi L, Pillastrini P, Khaleghi Tazji M (2019) Efficacy of Abdominal Control Feedback and Scapula Stabilization Exercises in Participants With Forward Head, Round Shoulder Postures and Neck Movement Impairment. *Sports Health*. 2019 Apr 23:1941738119835223. doi: 10.1177/1941738119835223. PMID: 31013190

Strian F (1996) *Schmerz: Ursachen – Symptomen – Therapien*. München: Beck, 1996 (Beck'sche Reihe; 2036: C.H.Beck Wissen

Tomaszewski KA, Saganiak K, Gładysz T, Walocha JA (2014) The biology behind the human intervertebral disc and its endplates *Folia Morphol.* Vol. 74, No. 2, pp. 157–168 DOI: 10.5603/FM.2015.0026.

Trijffel E van, Anderegg Q, Bossuyt PM, Lucas C. (2005) Inter-examiner reliability of passive assessment of intervertebral motion in the cervical and lumbar spine: a systematic review. *Man Ther.* 2005 Nov;10(4):256-69. Epub 2005 Jul 1. DOI: 10.1016/j.math.2005.04.008 PMID: 15994114

Tulder van MW, Hayden JA, Malmivaara A, Koes B W (2005) Exercise therapy for treatment of non-specific low back pain (2005) *Cochrane Database of Systematic Reviews*, (3). DOI: 10.1002/14651858.CD000335.pub2

Tulder van MW, Kroes B, Malmivaara A (2006) Outcome of non-invasive treatment modalities on back pain: an evidence-based review. *Eur Spine J* 15(Suppl 1): S64 S81. Doi: 10.1007/s00586-005-1084-6

Tulder van MW, Malmivaara A, Esmail R, Koes B. (2000) Exercise therapy for low back pain: a systematic review within the framework of the cochrane collaboration back review group. *Spine (Phila Pa 1976)*. 2000 Nov 1;25(21):2784-96.

Tulder van MW, Ostelo R, Vlaeyen JW, Linton SJ, Morley SJ, Assendelft WJ (2000) Behavioral treatment for chronic low back pain: a systematic review within the framework of the Cochrane Back Review Group. *Spine (Phila Pa 1976)*. 2000 Oct 15;25(20):2688-99.
Tulder van MW, Ostelo R, Vlaeyen JWS, Linton SJ, Morley SJ, Assendelft WJJ (1999). Behavioral treatment for chronic back pain. In: Tulder Mwvan, Koes BW, Assendelft WJJ, Bouter LM (Eds.): *The effectiveness of conservative treatment of acute and chronic low back pain.* EMGO Institute Amsterdam, pp.223–56

Vad VB, Bhat AL, Basrai D, Gebeh A, Aspergren DD, Andrews JR (2004) Low back pain in professional golfers: the role of associated hip and low back range-of-motion deficits. *Am J Sports Med.* 2004 Mar; 32(2):494-7. PMID:14977679. doi:10.1177/0363546503261729

Vad VB, Gebeh A, Dines D, Altchek D, Norris B (2003) Hip and shoulder internal rotation range of motion deficits in professional tennis players. *J Sci Med Sport.* 2003 Mar; 6(1):71-5

Van Dillen LR, Bloom NJ, Gombatto SP, Susco TM (2008) Hip Rotation Range of Motion in People With and Without Low Back Pain Who Participate in Rotation-Related Sports. *Phys Ther Sport.* May; 9(2): 72–81. doi:10.1016/j.ptsp.2008.01.002

Van Dillen LR, Gombatto SP, Collins DR, Engsberg JR, Sahrman SA (2007) Symmetry of timing of hip and lumbopelvic rotation motion in 2 different subgroups of people with low back pain. *Arch Phys Med Rehabil*, 2007.

Vleeming A, Schuenke MD, Masi AT, Carreiro JE, Danneels L, Willard FH (2012) The sacroiliac joint: an overview of its anatomy, function and potential clinical implications *J Anat.* 2012 Dec; 221(6): 537–567. doi: 10.1111/j.1469-7580.2012.01564.x. PMID: 22994881

Vleeming A, Stoeckart R (2007) The role of the pelvic girdle in coupling the spine and the legs: a cinical-anatomical perspective on pelvic stability. In: Vleeming A, Mooney V, Stoeckart R, editors. *Movement, Stability and Lumbopelvic Pain: Integration and Research*. Edinburgh: Churchill Livingstone; 2007. pp. 113–137.

Vogt MT, Rubin D, Valentin RS, Palermo L, Donaldson WF, Nevitt M, Cauley JA. Lumbar olisthesis and lower back symptoms in elderly white women. *The Study of Osteoporotic Fractures*. *Spine (Phila Pa 1976)*. 1998 Dec 1;23(23):2640-7.

Waddell G (1998) *The Back Pain Revolution*, Churchill Livingstone, United Kingdom 1998

Weinberg DS, Gebhart JJ, Liu RW (2017) Hip-spine syndrome: A cadaveric analysis between osteoarthritis of the lumbar spine and hip joints. *Orthop Traumatol Surg Res*. 2017 Sep;103(5):651-656. doi: 10.1016/j.otsr.2017.05.010. Epub 2017 May 31.

Weinstein SL, Zavala DC, Ponseti IV (1981) Idiopathic scoliosis: long-term follow-up and prognosis in untreated patients. *J Bone Joint Surg Am*. 1981 Jun;63(5):702-12.

Weinstein SL, Dolan LA, Spratt KF, Peterson KK, Spoonamore MJ, Ponseti IV (2003) Health and function of patients with untreated idiopathic scoliosis: a 50-year natural history study. *JAMA*. 2003 Feb 5; 289(5):559-67.

Weng W, Wu H, Wu M, Zhu Y, Qiu Y, Wang W (2016) The effect of total hip arthroplasty on sagittal spinal-pelvic-leg alignment and low back pain in patients with severe hip osteoarthritis. *Eur Spine J*, 2016. 25(11): p. 3608-3614.

Werner CM, Blumenthal S, Curt A, Gerber C (2006) Subacromial pressures in vivo and effects of selective experimental suprascapular nerve block. *J Shoulder Elbow Surg*. 2006 May-Jun; 15(3):319-23.

Yanai T, Fuss FK, Fukunaga T (2006) In vivo measurements of subacromial impingement: substantial compression develops in abduction with large internal rotation. *Clin Biomech (Bristol, Avon)*. 2006 Aug; 21(7):692-700.

Yang L, Yang C, Pang X, Li D, Yang H, Zhang X, Yang Y, Peng B (2017) Mechanoreceptors in diseased cervical intervertebral disc and Vertigo. *Spine* 42 (8): 540–546. doi: 10.1097/BRS.0000000000001801

Yerys S, Makofsky H, Byrd C, Pennachio J, Cinkay J. Effect of Mobilization of the Anterior Hip Capsule on Gluteus Maximus Strength. *J Manual Manip Ther*, 2002;10(4):218-224. Doi: <https://doi.org/10.1179/106698102790819085>