

DAFTAR PUSTAKA

- Balasubramanya, R., & Selvarajan, S. K. 2020. Lumbar spine imaging. National Library of Medicine.
- Bener, A., Dafeeah, E. E., Alnaqbi, K., Falah, O., Aljuhaisi, T., Sadeeq, A., ... Schlogl, J. 2013. An epidemiologic analysis of low back pain in primary care: A hot humid country and global comparison. *J of Primary Care*, 4(3). <https://doi.org/10.1177/2150131913479385>
- Bento, T. P. F., Genebra, C. V. dos S., Maciel, N. M., Cornelio, G. P., Simeão, S. F. A. P., & Vitta, A. de. (2020). Low back pain and some associated factors: is there any difference between genders? *Braz J Phys Ther*, 24(1). <https://doi.org/10.1016/j.bjpt.2019.01.012>
- Caffard, T., Arrzani, A., Verna, B., & Tripathi, V. 2023. Association between severity of the cervical foraminal stenosis and paraspinal muscle parameters in patients undergoing anterior cervical discectomy and fusion. *J of Neurosurg Spine*, 40(3), 274–281. <https://doi.org/10.3171/2023.10.SPINE23658>
- Çavuş, G., & Çavuş, Y. 2021. Magnetic resonance imaging changes in multifidus and psoas muscles in patients with lumbar spinal stenosis. *The European Research Journal*, 7(4), 409-416.
- Chou, R. 2021. Low Back Pain. *BMJ clinical evidence*. <https://www.acpjournals.org/doi/pdf/10.7326/AITC202108170>
- Chen, M., Zhang, P., Lai, J., Li, S., Yu, W., Fan, S., & Teng, H. 2023. A correlation study of preoperative lumbar paraspinal muscle quality and L5-S1 lumbar foraminal stenosis degeneration after L4–5 TLIF. *J of Orthop Surg Res*, 18(1), 731.
- Colakoglu, B., & Alis, D. 2019. Evaluation of lumbar multifidus muscle in patients with lumbar disc herniation: are complex quantitative MRI measurements needed?. *J of Int Med Res*, 47(8), 3590-3600.
- Dafkou, K., Kellis, E., Ellinoudis, A., & Sahinis, C. 2021. Lumbar Multifidus Muscle Thickness During Graded Quadruped and Prone Exercises. *Int J of exercise science*, 14(7), 101–112.
- Dahlan, M Sopiudin. 2010. Besar Sampel dan Cara Pengambilan Sampel dalam Penelitian Kedokteran dan Kesehatan. Salemba Medika: Jakarta.
- Dahlan, M Sopiudin. 2014. Statistik Untuk Kedokteran dan Kesehatan (6th ed.). Epidemiologi Indonesia.

- DeSai, C., Reddy, V., & Agarwal, A. 2018. Anatomy, back, vertebral column. National Library of Medicine.
- de Souza, I. M. B., Merini, L. R., Ramos, L. A. V., Passaro, A. D. C., França, J. I. D., & Marques, A. P. 2021. Prevalence of low back pain and associated factors in older adults: Amazonia Brazilian community study. In *Healthcare* (Vol. 9, No. 5, p. 539). MDPI.
- do Nascimento, P. R. C., & Pena Costa, L. O. 2015. Low back pain prevalence in Brazil: A systematic review. *Cadernos de Saude Publica*. <https://doi.org/10.1590/0102-311X00046114>
- Esquirol, Y., Niezborala, M., Visentin, M., Leguevel, A., Gonzalez, I., & Marquié, J. C. 2017. Contribution of occupational factors to the incidence and persistence of chronic low back pain among workers: Results from the longitudinal VISAT study. *Occupational and Environmental Medicine*, 74(4). <https://doi.org/10.1136/oemed-2015-103443>
- Fisher, R. E., Smith, H. F., Kusumi, K., Tassone, E. E., Rawls, A., & Wilson-Rawls, J. 2012. Mutations in the Notch pathway alter the patterning of multifidus. *The Anatomical Record: Advances in Integrative Anatomy and Evolutionary Biology*, 295(1), 32-39.
- Freeman, M. D., Woodham, M. A., & Woodham, A. W. 2010. The role of the lumbar multifidus in chronic low back pain: a review. *Pm&r*, 2(2), 142-146.
- Frost, B. A., Camarero-Espinosa, S., & Foster, E. J. 2019. Materials for the spine: anatomy, problems, and solutions. *Materials*, 12(2), 253.
- Gibbs, D., McGahan, B. G., Ropper, A. E., & Xu, D. S. 2023. Back Pain: Differential Diagnosis and Management. *Neurologic Clinics*, 41(1), 61-76.
- Goubert, D., Van Oosterwijck, J., Meeus, M., & Danneels, L. 2016. Structural changes of lumbar muscles in non-specific low back pain. *Pain physician*, 19(7), E985-E999.
- Hacking C, Jones J, Baba Y, *et al.* 2023. Vertebra. Reference article, Radiopaedia.org. <https://doi.org/10.53347/rID-52546>
- Heuch, I., Heuch, I., Hagen, K., & Zwart, J. A. 2013. Body mass index as a risk factor for developing chronic low back pain: A follow-up in the nord-trøndelag health study. *Spine*, 38(2). <https://doi.org/10.1097/BRS.0b013e3182647af2>

- Hodges, P. W., & Danneels, L. 2019. Changes in structure and function of the back muscles in low back pain: different time points, observations, and mechanisms. *J of Orthop Sports Phys Ther*, 49(6), 464-476.
- IASP. 2021. The Global Burden of Low Back Pain. International Association for the Study of Pain. <https://www.iasp-pain.org/resources/fact-sheets/the-global-burden-of-low-back-pain/>
- Jeong, T. S., Ahn, Y., Lee, S. G., Kim, W. K., Son, S., & Kwon, J. H. 2017. Correlation between MRI grading system and surgical findings for lumbar foraminal stenosis. *J of Korean Neurosurg Soc*, 60(4). <https://doi.org/10.3340/jkns.2016.1010.004>
- Kalichman, L., Carmeli, E., & Been, E. 2017. The association between imaging parameters of the paraspinal muscles, spinal degeneration, and low back pain. *BioMed research international*.
- Kalichman, L., & Hunter, D. J. 2008. Diagnosis and conservative management of degenerative lumbar spondylolisthesis. *J of European Spine*, 17(3). <https://doi.org/10.1007/s00586-007-0543-3>
- Kerkhoff, A. C., Moreira, L. B., Fuchs, F. D., & Fuchs, S. C. 2012. Association between hypertension and musculoskeletal complaints: A population-based study. *J of Hypertension*, 30(11). <https://doi.org/10.1097/HJH.0b013e3283588268>
- Kliziene, I., Sipaviciene, S., Klizas, S., & Imbrasiene, D. 2015. Effects of core stability exercises on multifidus muscles in healthy women and women with chronic low-back pain. *J of back and musculoskeletal*, 28(4), 841-847.
- Knezevic, N. Candido, K. Vlaeyen, J. Zundert, J. Cohen, S. 2021. Low Back Pain. *The Lancet*. Volume 398 P78-92.
- Leclerc, A., Gourmelen, J., Chastang, J. F., Plouvier, S., Niedhammer, I., & Lanoë, J. L. 2009. Level of education and back pain in France: The role of demographic, lifestyle and physical work factors. *International Archives of Occupational and Environmental Health*, 82(5). <https://doi.org/10.1007/s00420-008-0375-4>
- Lee, H. I., Song, J., Lee, H. S., Kang, J. Y., Kim, M., & Ryu, J. S. 2011. Association between cross-sectional areas of lumbar muscles on magnetic resonance imaging and chronicity of low back pain. *Annals of Rehabilitation Medicine*, 35(6), 852-859.
- Mäki, T., Oura, P., Paananen, M. *et al*. 2019. Longitudinal Analysis of Paraspinal Muscle Cross-Sectional Area During Early Adulthood – A 10-Year Follow-

Up MRI Study. *Sci Rep* **9**, 19497. <https://doi.org/10.1038/s41598-019-56186-4>

- Mandell, J. C., Czuczman, G. J., Gaviola, G. C., Ghazikhanian, V., & Cho, C. H. 2017. The lumbar neural foramen and transforaminal epidural steroid injections: an anatomic review with key safety considerations in planning the percutaneous approach. *American J of Roentgenology*, 209(1), W26-W35.
- McHugh, M. L. 2012. Interrater reliability: the kappa statistic. *Biochemia Medica*, 22(3), 276–282.
- Miki, T., Fujita, N., Takashima, H., & Takebayashi, T. 2020. Associations between paraspinal muscle morphology, disc degeneration, and clinical features in patients with lumbar spinal stenosis. *Progress in Rehabilitation Medicine*, 5, 20200015.
- Mohd Isa, I. L., Teoh, S. L., Mohd Nor, N. H., & Mokhtar, S. A. 2022. Discogenic low back pain: anatomy, pathophysiology and treatments of intervertebral disc degeneration. *International J of Molecular*, 24(1), 208.
- Noonan, A. M., & Brown, S. H. 2021. Paraspinal muscle pathophysiology associated with low back pain and spine degenerative disorders. *JOR spine*, 4(3), e1171.
- O'Connell, N. E., Cook, C. E., Wand, B. M., & Ward, S. P. 2017. Clinical guidelines for low back pain: a critical review of consensus and inconsistencies across three major guidelines. *Best practice & research Clinical rheumatology*, 30(6), 968-980
- Orita, S., Inage, K., Eguchi, Y., Kubota, G., Aoki, Y., Nakamura, J., ... Ohtori, S. 2016. Lumbar foraminal stenosis, the hidden stenosis including at L5/S1. *European J of Orthopaedic Surgery and Traumatology*. <https://doi.org/10.1007/s00590-016-1806-7>
- Ota, Y., Connolly, M., Srinivasan, A., Kim, J., Capizzano, A. A., & Moritani, T. (2020). Mechanisms and origins of spinal pain: from molecules to anatomy, with diagnostic clues and imaging findings. *Radiographics*, 40(4), 1163-1181.
- Panta, O. B., Songmen, S., Maharjan, S., Subedi, K., Ansari, M. A., & Ghimire, R. K. (2015). Morphological Changes in Degenerative Disc Disease on Magnetic Resonance Imaging: Comparison Between Young and Elderly. *J of Nepal Health Research Council*.
- PERDOSSI. 2016. Panduan Praktis Klinis Neurologi. Perhimpunan Dokter

Spesialis Saraf Indonesia.

Pinheiro, R. C., Uchida, R. R., Mathias, L. A. da S. T., Perez, M. V., & Cordeiro, Q. 2014. Prevalence of depressive and anxiety symptoms in patients with chronic pain. *Jornal Brasileiro de Psiquiatria*, 63(3).

Policicchio, D., Boccaletti, R., Dipellegrini, G., Doda, A., Stangoni, A., & Veneziani, S. F. 2021. Pedicled multifidus muscle flap to treat inaccessible dural tear in spine surgery: Technical note and preliminary experience. *World Neurosurgery*, 145, 267-277.

Radswiki T, Veiga M, Hacking C, *et al.* 2023. Modic type endplate changes. Reference article, Radiopaedia.org. <https://doi.org/10.53347/rID-12146>

Rahmani, N., Kiani, A., Mohseni-Bandpei, M.A., Abdollahi, I., 2018. Multifidus muscle size in adolescents with and without back pain using ultrasonography. *J of Bodywork & Movement Therapies*. doi: 10.1016/j.jbmt.2017.05.016.

Ruiz-Fernández, C., Francisco, V., Pino, J., Mera, A., González-Gay, M. A., Gómez, R., ... Gualillo, O. 2019. Molecular relationships among obesity, inflammation and intervertebral disc degeneration: Are adipokines the common link? *Int J of Molecular Sciences*. <https://doi.org/10.3390/ijms20082030>

Sastroasmoro, S. Ismael, S. 2011. Dasar-dasar Metodologi Penelitian Klinis Edisi ke-4. Jakarta: Sagung Seto.

Seo J, Lee JW. 2023. Magnetic Resonance Imaging Grading Systems for Central Canal and Neural Foraminal Stenoses of the Lumbar and Cervical Spines With a Focus on the Lee Grading System. *Korean J Radiol*. Mar;24(3):224-234. <https://doi.org/10.3348/kjr.2022.0351>

Skalski M, Knipe H, El-Feky M, *et al.* 2020. Lumbar foraminal stenosis. Reference article, Radiopaedia.org. <https://doi.org/10.53347/rID-81619>

Silva, J. M., da Silva Alves Gomes, V. M., Barreto, T. D. N. P., de Souza Melo, T. M., Bezerra, L. M. R., Raposo, M. C. F., *et al.* 2023. Reference values for the cross-sectional area of the lumbar multifidus muscle in children. *J of back and musculoskeletal rehabilitation*, 36(1), 87–96. <https://doi.org/10.3233/BMR-210118>

Sions, J. M., Teyhen, D. S., & Hicks, G. E. 2017. Criterion validity of ultrasound imaging: assessment of multifidi cross-sectional area in older adults with and without chronic low back pain. *Journal of geriatric physical therapy*, 40(2), 74-79.

- Smriti Jagdhari, B., Mukta, M., Golhar Saket, A., & Golhar, A. V. 2017. Therapeutic evaluation of cervical dysfunction in patients with myofascial pain dysfunction syndrome: A prospective study. *J of Contemporary Dental Practice*, 18(7). <https://doi.org/10.5005/jp-journals-10024-2092>
- Sobański, D., Staszkiwicz, R., Stachura, M., Gadzieliński, M., & Grabarek, B. O. 2023. Presentation, Diagnosis, and Management of Lower Back Pain Associated with Spinal Stenosis: A Narrative Review. *Medical Science Monitor: International Medical J of Experimental*, 29, e939237-1.
- Stewart M, Deng F, Knipe H, et al. 2022. Intervertebral foramen. Reference article, Radiopaedia.org. <https://doi.org/10.53347/rID-54836>
- Urits, I., Burshtein, A., Sharma, M., Testa, L., Gold, P. A., Orhurhu, V., ... & Kaye, A. D. 2019. Low back pain, a comprehensive review: pathophysiology, diagnosis, and treatment. *Current pain and headache reports*, 23, 1-10.
- Urquhart, D. M., Kurniadi, I., Triangto, K., Wang, Y., Wluka, A. E., O'Sullivan, R., ... Cicuttini, F. M. 2014. Obesity is associated with reduced disc height in the lumbar spine but not at the lumbosacral junction. *Spine*, 39(16). <https://doi.org/10.1097/BRS.0000000000000411>
- Wang, K., Deng, Z., Chen, X., Shao, J., Qiu, L., Jiang, C., & Niu, W. 2023. The Role of Multifidus in the Biomechanics of Lumbar Spine: A Musculoskeletal Modeling Study. *Bioengineering*, 10(1). <https://doi.org/10.3390/bioengineering10010067>
- Waxenbaum, J. A., Reddy, V., & Futterman, B. 2017. Anatomy, back, thoracic vertebrae. National Library of Medicine.
- Weiner, D. K., Sakamoto, S., Perera, S., & Breuer, P. 2006. Chronic low back pain in older adults: Prevalence, reliability, and validity of physical examination findings. *J of the American Geriatrics Society*. <https://doi.org/10.1111/j.1532-5415.2005.00534.x>
- Weinstein, J. N., Lurie, J. D., Tosteson, T. D., Zhao, W., Blood, E. A., Tosteson, A. N., ... Hu, S. S. 2009. Surgical Compared with Nonoperative Treatment for Lumbar Degenerative Spondylolisthesis. *J of Bone Volume*, 91(6). <https://doi.org/10.2106/jbjs.h.00913>
- WHO. 2023. Low Back Pain. <https://www.who.int/news-room/fact-sheets/detail/low-back-pain#:~:text=Low%20back%20pain%20can%20be,sleep%2C%20low%20mood%20and%20distress>.
- Xia, G., Li, X., Shang, Y., Fu, B., Jiang, F., Liu, H., & Qiao, Y. 2021. Correlation

between severity of spinal stenosis and multifidus atrophy in degenerative lumbar spinal stenosis. *BMC Musculoskeletal Disorders*, 22(1), 536.

Yee J, Hacking C, Bell D, *et al.* 2023. Transversospinalis muscle group. Reference article, Radiopaedia.org. <https://doi.org/10.53347/rID-45296>

Yoshihara, H. 2012. Sacroiliac joint pain after lumbar/lumbosacral fusion: Current knowledge. *European Spine Journal*. <https://doi.org/10.1007/s00586-012-2350-8>

Yun, J. H., & Lee, D. G. 2023. Physical Functional Ability and Quantitative Assessment of the Multifidus Muscle of the Lumbar Spine in the Elderly. *Diagnostics*, 13(14). <https://doi.org/10.3390/diagnostics13142423>

Zhao, G., Wang, H., Wang, L., Ibrahim, Y., Wan, Y., Sun, J., ... Liu, X. 2023. The Biomechanical Effects of Different Bag-Carrying Styles on Lumbar Spine and Paraspinal Muscles: A Combined Musculoskeletal and Finite Element Study. *Orthopaedic Surgery*, 15(1). <https://doi.org/10.1111/os.13573>