

## DAFTAR PUSTAKA

- Afandi, G. E., & Rahman, I. (2021). Penatalaksanaan Fisioterapi pada Kasus Bell's Palsy Sinistra dengan Modalitas Infra Red dan Massage di RSUD Cikalang Wetan Kabupaten Bandung Barat. *Excellent Midwifery Journal*, 4(2), 44–49.
- Almeer, G., Azzopardi, C., Kho, J., Gupta, H., James, S. L., & Botchu, R. (2020). Anatomy and pathology of facet joint. *Journal of Orthopaedics*, 22(March), 109–117. <https://doi.org/10.1016/j.jor.2020.03.058>
- Annisa Khalifatul Husna, & Nungki Marliyani. (2024). Manajemen Fisioterapi Dengan Short Wave Diathermy (SWD) Dan Terapi Latihan Pada Kasus Post Closed Reduction Shoulder E.C Fracture Tuberculum Majus Os. Humerus. *Jurnal Anestesi*, 2(3), 13–22. <https://doi.org/10.59680/anestesi.v2i3.1078>
- Apriliana, R., & Rakasiwi, A. M. (2020). Physiotherapy Management in Cervical Root Syndrome With Traction Modalities, Transcutaneus Electrical Nerve Stimulation (Tens), and Training Therapy in the Hospital in the District of Pekalongan.
- Arief, E., & Nurul, H. (2023). Kombinasi Ultrasound Dan Mc Kenzie Exercise Meningkatkan Fleksibilitas Lumbar Pada Pasien Nyeri Punggung Bawah Miogenik. *Kieraha Medical Jurnal*, 5, 35–39. <https://ejournal.unkhair.ac.id/index.php/kmj>
- Arkan, A., & Wulandari, I. D. (2022). Penatalaksanaan Fisioterapi Pada Hernia Nucleus Pulposus (HNP) Lumbar Dengan Modalitas Shortwave Diathermy (SWD), Traksi Dan MC. Kenie Exercise DI RSUD Bendan Kota Pekalongan Azinudin. *Braz Dent J.*, 33(1), 1–12.
- Dailey, D. L., Vance, C. G. T., Rakel, B. A., Zimmerman, M. B., Embree, J., Merriwether, E. N., Geasland, K. M., Chimenti, R., Williams, J. M., Golchha, M., Crofford, L. J., & Sluka, K. A. (2020). Transcutaneous Electrical Nerve Stimulation Reduces Movement-Evoked Pain and Fatigue: A Randomized, Controlled Trial. *Arthritis and Rheumatology*, 72(5), 824–836. <https://doi.org/10.1002/art.41170>
- De Cicco, F. L., & Camino Willhuber, G. O. (2023). Nucleus Pulposus Herniation. StatPearls Publishing, Treasure Island (FL). <http://europepmc.org/books/NBK542307>
- Dinata, I. G. S., & Yasa, A. A. G. W. P. (2021). The Overview of Spinal Cord Injury. *Ganesha Medicine*, 1(2), 103. <https://doi.org/10.23887/gm.v1i2.39735>
- Drake, R. L., Vogi, A. W., & Michell, A. W. M. (2019). Sistem Kardiovaskuler. In *Gray Dasar-Dasar Anatomi Edisi ke-2*.

- Durahim, D., Qisty, A., Saadiyah, S., Halimah, A., & Suharto, S. (2023). Penatalaksanaan Fisioterapi Pada Gangguan Fungsional Lumbal Akibat Hernia Nucleus Pulposus (Hnp) Di Wilayah Tamalanrea Makassar. *Media Fisioterapi Politeknik Kesehatan Makassar*, 14(2), 27. <https://doi.org/10.32382/mf.v14i2.3150>
- Efobi, U., Belmondo, T., Orkoh, E., Atata, S. N., Akinyemi, O., & Beecroft, I. (2019). Environmental pollution policy of small businesses in Nigeria and Ghana: extent and impact. *Environmental Science and Pollution Research*, 26(3), 2882–2897. <https://doi.org/10.1007/s11356-018-3817-x>
- Ghorbani, F., Kamyab, M., Azadinia, F., & Ahmadi, A. (2020). Research Paper: The Reliability and Concurrent Validity of Digital Inclinometer, Smartphone Applications, and the Cervical Range of Motion Device for Measuring the Cervical Range of Motion. *Iranian Rehabilitation Journal*, 18(4), 405–417. <https://doi.org/10.32598/irj.18.4.927.1>
- Harris, J. (2024). What exactly is a nuchal ligament and who exactly has one? *Vertebrate Anatomy Morphology Palaeontology*, 12, 59–80. <https://doi.org/10.18435/vamp29405>
- Hasmar, W., & Sari, I. P. (2022). Efektifitas Chin Tuck Exercise Terhadap Peningkatan Aktivitas Fungsional Cervical Pada Pembatik. *Quality : Jurnal Kesehatan*, 16(2), 96–101. <https://doi.org/10.36082/qjk.v16i2.829>
- Hasvik, E., Haugen, A. J., & Grøvle, L. (2022). Symptom descriptors and patterns in lumbar radicular pain caused by disc herniation. *BMJ Open*, 12(12), e065500. <https://doi.org/10.1136/bmjopen-2022-065500>
- Hong, C. G., & Nam, W. D. (2022). Reliability and Diagnostic Accuracy of Standard Dermatomes and Myotomes for Determining the Pathologic Level in Surgically Verified Patients With Cervical Radiculopathy. *Neurospine*, 19(4), 1006–1012. <https://doi.org/10.14245/ns.2244194.097>
- Irfan, N., & Perdana, S. S. (2021). Case Report: the Provision of Intervention TENS and Neuro Mobilization in Patients with Cervical Root Syndrome (CRS) Naufal Irfan, Suryo Saputra Perdana. *Physical Therapy*, 4.
- Irvan, M., & Sulistyani. (2024). Tatalaksana Komperhensif Pada Kasus Hernia Nucleus Pulposus (HNP). *Proceeding of Thalamus 2024*, 664–675.
- Jalil, R., Ainun, N., Muallin, M., Amir, W. A. A., Salim, M., & Grace, P. (2024). Optimisasi Proses Pembuatan Tulang Belakang Dari Bahan Gabus. *Jurnal Pepadu*, 5(2), 312–319. <https://doi.org/10.29303/pepadu.v5i2.4415>
- Kazeminasab, S., Nejadghaderi, S. A., Amiri, P., Pourfathi, H., Araj-Khodaei, M., Sullman, M. J. M., Kolahi, A. A., & Safiri, S. (2022). Neck pain: global epidemiology, trends and risk factors. *BMC Musculoskeletal Disorders*, 23(1),

- 1–13. <https://doi.org/10.1186/s12891-021-04957-4>
- Kementerian Kesehatan Republik Indonesia. (2015). Peraturan Menteri Kesehatan Republik Indonesia Nomor 65 Tahun 2015 Tentang Standar Pelayanan Fisioterapi. *Kementerian Kesehatan Republik Indonesia*, 16(2), 39–55.
- Kenyon, K., & Jonathan. (2018). The Physiotherapist's Pocket Book. In *Journal of Physics A: Mathematical and Theoretical* (Vol. 44, Issue 8). <https://doi.org/10.1088/1751-8113/44/8/085201>
- Labibah, D. I. (2022). Efektivitas instrumen numeric rating scale dan visual analog scale pada pasien post operasi sectio caesarea: literature review. *Jurnal Universitas Aisyiyah Yogyakarta*, 11(1), 12.
- Lasalutu, A. M., & Wardhani, R. R. (2023). Pengaruh theraband exercise terhadap penurunan nyeri dan peningkatan aktivitas fungsional osteoarthritis knee pada lansia: narrative review. *Journal Physical Therapy UNISA*, 3(1), 24–32. <https://doi.org/10.31101/jitu.2660>
- Liang, L., & Cui, X. (2019). The effectiveness of exercise on cervical radiculopathy: A protocol for systematic review and meta-analysis. *Medicine (United States)*, 98(35), 6–8. <https://doi.org/10.1097/MD.00000000000016975>
- Liza Berlinia, & Ichwanuddin Ichwanuddin. (2024). Hernia Nukleus Pulposus. *Termometer: Jurnal Ilmiah Ilmu Kesehatan Dan Kedokteran*, 2(3), 175–197. <https://doi.org/10.55606/termometer.v2i3.4119>
- Lowe, R. (2023). *Kemp Test*. Physiopedia. [https://www.physio-pedia.com/Kemp\\_Test](https://www.physio-pedia.com/Kemp_Test)
- Maksum, M., & Hanriko, R. (2019). Hernia Nukleus Pulposus Servikalis. *Jurnal Medula Unila*, 6(1), 77–82.
- McDonald, J. F. (2021). Calibration of a monocentric city model with mixed land use and congestion. *Regional Science and Urban Economics*, 39(1), 90–96. <https://doi.org/10.1016/j.regsciurbeco.2008.06.005>
- Mustafa, P. S. (2023). Pertumbuhan dan Perkembangan Otot, Tendon, Ligamen, Tulang, Sendi, Axis dalam Gerak serta Upaya untuk Pengoptimalan Kualitas Gerak pada Peserta Didik: Sebuah Tinjauan. *Medika: Jurnal Ilmiah Kesehatan*, 3(2), 1–14. <https://doi.org/10.69503/medika.v3i2.588>
- Nadeak, B. (2020). Penegakan Diagnosis dan Penanggulangan Cervicalys Herniated Nucleus Pulposus. *Pro-Life*, 7(1), 1–12. <https://doi.org/10.33541/jpvol6iss2pp102>
- Natashia, K., & Makkiyah, F. A. (2023). Faktor-Faktor yang Mempengaruhi Keluhan Nyeri Leher Non- Spesifik pada Orang Dewasa Usia Produktif.

*Ikraith-Humaniora*, 8(1), 136–146.

- Neli Anggraini, N. A., Gemaal, Q. A., Izzuddin, D. A., Setiawan, M. A., & Wijaya, H. H. (2024). Evaluasi Postural Program Penanganan Disease Hernia Nukleus Pulusos Di Ifit Indonesia Jakarta Pusat. *Jambura Health and Sport Journal*, 6(2), 75–86. <https://doi.org/10.37311/jhsj.v6i2.26530>
- Nugrahaeni, A. (2020). Pengantar Anatomi Fisiologi Manusia. In *Healthy* (pp. 212–213).
- Paley, C. A., Wittkopf, P. G., Jones, G., & Johnson, M. I. (2021). Does tens reduce the intensity of acute and chronic pain? A comprehensive appraisal of the characteristics and outcomes of 169 reviews and 49 meta-analyses. *Medicina (Lithuania)*, 57(10). <https://doi.org/10.3390/medicina57101060>
- Putra, I. P. M., Nugraha, M. H. S., Tianing, N. W., & Primayanti, I. D. A. I. D. (2020). Uji Validitas Dan Reliabilitas Adaptasi Lintas Budaya Kuesioner Neck Disability Index Versi Indonesia Pada Mechanical Neck Pain. *Majalah Ilmiah Fisioterapi Indonesia*, 6(3), 34. <https://doi.org/10.24843/mifi.2020.v08.i03.p01>
- Putri, F. N., Naufal, A. F., & Yunanto, S. (2023). Manajemen Fisioterapi Pada Kasus Cervical Root Syndrome. *Academic Physiotherapy Conference Proceeding*, 272–279.
- Rahmawati, W., Proboyekti, D., & Sasi Kusumawati. (2024). Manajemen Fisioterapi Pada Cervical Root Syndrome (Crs) Dengan Transcutaneous Electrical Nerve Stimulation (Tens) Dan Terapi Latihan. In *Physio Journal* (Vol. 4, Issue 1, pp. 27–37). <https://doi.org/10.30787/phyjou.v4i1.1439>
- Rakasiwi, A. M., & Apriliana, R. (2021). Physiotherapy Intervention On Cervical Root Syndrome with Traction Modalities Transcutaneous Electrical Nerve Stimulation (TENS) and Exercise Therapy To Improve Functional Activity. *Jurnal Kesehatan*, 9(2), 94–100.
- Roche, C. (2020). *Cervical Spine*. Medical Radiology. [https://doi.org/10.1007/978-3-540-68897-6\\_6](https://doi.org/10.1007/978-3-540-68897-6_6)
- Rusmayanti, M. Y., & Kurniawan, S. N. (2023). Hnp Lumbalis. *JPHV (Journal of Pain, Vertigo and Headache)*, 4(1), 7–11. <https://doi.org/10.21776/ub.jphv.2023.004.01.2>
- Salsabila, A., Rosella Komala, D., & Widya Pradana, N. (2023). Management Fisioterapi Pada Stroke Hemoragik Hemiparese *Dextra Comorbid Hipertensi Dengan Modalitas Terapi Latihan*. *Tahun*, 4(1), 2746–1246. <https://doi.org/10.47841/semnasadpi.v4i1.89>
- Sapra, A., Malik, A., & Bhandari, P. (2025). Vital Sign Assessment. In *StatPearls*. <http://www.ncbi.nlm.nih.gov/pubmed/11867973>

- Savlovskis, J., & Raits, kristaps. (2021). *Nuchal, Supraspinal & Interspinal Ligaments. Anatomy Standard Biomechanics of the Spine.* <https://www.anatomystandard.com/ossa-et-juncturae/columna-vertebralis/ligg-inter-et-supraspinalia.html>
- Solitaire, S., Lintong, F., & Rumampuk, J. (2019). Gambaran hasil pengukuran tekanan darah antara posisi duduk, posisi berdiri dan posisi berbaring pada siswa kelas xi ipa sma kristen 1 tomohon. *Jurnal Medik Dan Rehabilitasi (JMR)*, 1(3), 1–4.
- Sudaryanto, Rahmat Nugraha, Hasibah, T. erawan/ A. aimal syaqshana. (2024). *Kombinasi Transcutaneus Electrical Nerve Stimulation dan Integrated Neuromuscular Inhibition Technique untuk Menurunkan Nyeri dan Meningkatkan Kemampuan Fungsional Pasien dengan Hernia Nukleus Pulposus Lumbal Sudaryanto.* 15(3), 308–311. [https://doi.org/http://dx.doi.org/10.33846/sf15229 Kombinasi](https://doi.org/http://dx.doi.org/10.33846/sf15229)
- Sun, N., Jiang, C., & Liu, Y. (2024). Surgical options for ossification of the posterior longitudinal ligament of the cervical spine: a narrative review. *Journal of Orthopaedic Surgery and Research*, 19(1), 707. <https://doi.org/10.1186/s13018-024-05215-8>
- Then, Z., & Biakto, K. T. (2020). Pendekatan Diagnostik Nyeri Leher. *Cermin Dunia Kedokteran*, 47(9), 487. <https://doi.org/10.55175/cdk.v47i9.908>
- Turetsky, L. (2024). *7 Specific Upper Back Stretches For Back Pain Relief.* <https://backintelligence.com/upper-back-stretches/>
- Udayana, P. G. A. P., Parwata, I. M. Y., & Yasa, I. M. A. (2023). Pengaruh Isometric Neck Exercise Terhadap Daya Tahan Deep Cervical Flexor Muscle Pada Game Streamer. *PhysioHS (Physiotherapy Health Science)*, 6(2), 92–100.
- Vetiani, A., Wijianto, W., & Pristianto, A. (2022). Program Fisioterapi Untuk Mengatasi Keluhan Pada Cervical Root Syndrome. *Physiotherapy Health Science (PhysioHS)*, 4(1), 1–6. [https://yankes.kemkes.go.id/view\\_artikel/1905/cervical-root-syndrome\(CRS\)](https://yankes.kemkes.go.id/view_artikel/1905/cervical-root-syndrome(CRS))
- Walizai, T. (2024). Ligamentum flavum. Radiopaedia.Org. <https://doi.org/10.53347/rid-36588>
- Wang, T. (2022). Validity of The Spurling Test in The Diagnosis of Cervical Radiculopathy: A Systematic Review. *Research Square*, 1–9.
- Widyasari, O. R., & Wulandari, I. D. (2020). Penatalaksanaan Fisioterapi Pada Hernia Nucleus Pulposus (Hnp) Dengan Modalitas Traksi Dan Mc. Kenzie

Exercise Di Rso Prof Dr. R. Soeharso Surakarta. *Pena Jurnal Ilmu Pengetahuan Dan Teknologi*, 34(1), 46. <https://doi.org/10.31941/jurnalpena.v34i1.999>

Wihantoro, W., Haryadi, A., & Ferdian, A. (2021). Pengukuran laju pernapasan (respiration rate, RR) berbasis beda suhu pernapasan. *Jurnal Teras Fisika*, 4(2), 213. <https://doi.org/10.20884/1.jtf.2021.4.2.4780>

Yoon, W. W., & Koch, J. (2021). Herniated discs: when is surgery necessary? *EFORT Open Reviews*, 6(6), 526–530. <https://doi.org/10.1302/2058-5241.6.210020>

Zaman, A. F., Wahyuni, W., & Israwan, W. (2021). Physiotherapy Management For Cervical Root Syndrome: A Case Study. *Academic Physiotherapy Conference Proceeding*.

Zhang, J., Zhou, Q., Yan, Y., Ren, J., Wei, S., Zhu, H., & Song, Z. (2022). Efficacy and safety of percutaneous endoscopic cervical discectomy for cervical disc herniation: a systematic review and meta-analysis. *Journal of Orthopaedic Surgery and Research*, 17(1), 1–13. <https://doi.org/10.1186/s13018-022-03365-1>

Zuhri, S., & Rustanti, M. (2021). Different Effectiveness of Dry Needle with Laser After Myofascial Release Added on Complaints of Myogenous Back Pain. *Jurnal Ilmu Dan Teknologi Kesehatan*, 8(2), 174–181. <https://doi.org/10.32668/jitek.v8i2.500>

Zuzilla, Yoshandi, T. M., & Hulmansyah, D. (2021). Comparison of Anatomical Information of Columna Vertebrae Cervical in 15 To 20-Degree Right Posterior Oblique Projection. *Medical Imaging and Radiation Protection Research (MIROR) Journal*, 1(1), 8–12. <https://doi.org/10.54973/miror.v1i1.74>