

## DAFTAR PUSTAKA

- Abdul Jabbar, K., Seah, W. T., Lau, L. K., Pang, B. W. J., Ng, D. H. M., Tan, Q. L. L., Chen, K. K., Mallya Ullal, J., Ng, T. P., & Wee, S. L. (2021). Fast gait spatiotemporal parameters in adults and association with muscle strength – The Yishun study. *Gait and Posture*, 85(December 2020), 217–223. <https://doi.org/10.1016/j.gaitpost.2021.01.001>
- Abdurrahman, E., Lowry, H., Sebayang, L., Ramadhan, F., Olahraga, S. T., Kesehatan, D., Guna, B., Jejak, R., Kunci, K., Kekuatan, L. ;, & Lari, ; (2022). Korelasi Frekuensi Dan Panjang Langkah Serta Kekuatan Tungkai Dengan Kemampuan Lari (Sprint). *Jurnal Olahraga Dan Kesehatan Indonesia (JOKI)*, 3(1), 66–73. <https://jurnal.stokbinaguna.ac.id/index.php/jok>
- Aboutorabi, A., Arazpour, M., Bahramizadeh, M., Hutchins, S. W., & Fadayevevan, R. (2016). The effect of aging on gait parameters in able-bodied older subjects: a literature review. *Aging Clinical and Experimental Research*, 28(3), 393–405. <https://doi.org/10.1007/s40520-015-0420-6>
- Addison, O., Drummond, M. J., Lastayo, P. C., Dibble, L. E., Wende, A. R., McClain, D. A., & Marcus, R. L. (2014). Intramuscular fat and inflammation differ in older adults: The impact of frailty and inactivity. *Journal of Nutrition, Health and Aging*, 18(5), 532–538. <https://doi.org/10.1007/s12603-014-0019-1>
- Anuar, R., Imani, D. R., & Norlinta, S. N. O. (2021). Pengaruh Latihan Fisik Terhadap Kebugaran Lansia Dalam Masa Pandemi Covid-19 : Narrative Review. *FISIO MU: Physiotherapy Evidences*, 2(2), 95–106. <https://doi.org/10.23917/fisiomu.v2i2.13978>
- Arifiati, R. F., Prasaja, P., & Kurniawan, H. (2024). Jalan Tendem Menurunkan Resiko Jatuh Lansia. *Jurnal Terapi Wicara Dan Bahasa*, 2(2), 666–676. <https://doi.org/10.59686/jtwb.v2i2.96>
- Beauchet, O., Allali, G., Sekhon, H., Verghese, J., Guilain, S., Steinmetz, J. P., Kressig, R. W., Barden, J. M., Szturm, T., Launay, C. P., Grenier, S., Bherer, L., Liu-Ambrose, T., Chester, V. L., Callisaya, M. L., Srikanth, V., Léonard, G., Cock, A. M. De, Sawa, R., ... Helbostad, J. L. (2017). Guidelines for assessment of gait and reference values for spatiotemporal gait parameters in older adults: The biomathics and canadian gait consortiums initiative. *Frontiers in Human Neuroscience*, 11(August). <https://doi.org/10.3389/fnhum.2017.00353>
- Boyer, K. A., Hayes, K. L., Umberger, B. R., Adamczyk, P. G., Bean, J. F., Brach, J. S., Clark, B. C., Clark, D. J., Ferrucci, L., Finley, J., Franz, J. R., Golightly, Y. M., Hortobágyi, T., Hunter, S., Narici, M., Nicklas, B., Roberts, T., Sawicki, G., Simonsick, E., & Kent, J. A. (2023). Age-related changes in gait biomechanics and their impact on the metabolic cost of walking: Report from a National Institute on Aging workshop. *Experimental Gerontology*, 173(October 2022). <https://doi.org/10.1016/j.exger.2023.112102>
- Cahyaningrum, E. D. (2021). Gambaran Kekuatan Otot Pada Lansia Di Rojinhom Yoichi Kokuba Yonabaru Okinawa Jepang. *Jurnal Ilmiah Kesehatan Keperawatan*, 17(1), 77. <https://doi.org/10.26753/jikk.v17i1.528>

- Camargo, M. R., Barela, J. A., Nozabiel, A. J. L., Mantovani, A. M., Martinelli, A. R., & Fregonesi, C. E. P. T. (2015). Balance and ankle muscle strength predict spatiotemporal gait parameters in individuals with diabetic peripheral neuropathy. *Diabetes and Metabolic Syndrome: Clinical Research and Reviews*, 9(2), 79–84. <https://doi.org/10.1016/j.dsx.2015.02.004>
- Choirunnisa, L., & Pudjiyanto, M. (2023). Pengaruh Senam Osteoporosis Terhadap Kekuatan Otot Quadriceps Dan Keseimbangan Pada Lansia. *Physio Journal*, 3(1), 41–48. <https://doi.org/10.30787/phyjou.v3i1.972>
- Collins, B. C., Laakkonen, E. K., & Lowe, D. A. (2019). Aging of the musculoskeletal system: How the loss of estrogen impacts muscle strength. *Bone*, 123(March), 137–144. <https://doi.org/10.1016/j.bone.2019.03.033>
- Cossana, A., Sena, I., & Vitalistyawati, L. (2020). *LEBAR LANGKAH MEMENGARUHI KESEIMBANGAN DINAMIS LANSIA SAAT JALAN MENANJAK*. 8(2), 102–114.
- Cruz-Jimenez, M. (2017). Normal Changes in Gait and Mobility Problems in the Elderly. *Physical Medicine and Rehabilitation Clinics of North America*, 28(4), 713–725. <https://doi.org/10.1016/j.pmr.2017.06.005>
- Damayanti, N., Dewi, A., Sugiritama, W., & Muliarta, I. (2021). *FAKTOR YANG MEMPENGARUHI KECEPATAN LARI PADA PEMAIN BASKET SMA*. 9(1), 6–12.
- Dewanti, N. K. A. S., Saraswati, P. A. S., & Adiputra, L. M. S. I. H. (2021). Hubungan Kualitas Tidur Terhadap Stabilitas Postural dan Gaya Berjalan pada Lansia. *Indonesian Journal of Physiotherapy Research and Education*, 2(1), 5–12.
- Fauziah, R. N., Setiawan, & Witdiawati. (2019). Intervensi Perawat Dalam Penatalaksanaan Resiko Jatuh Pada Lansia di Satuan Pelayanan RSLU Garut. *Jurnal Keperawatan BSI*, 7(2), 1–10. <http://ejournal.bsi.ac.id/ejurnal/index.php/jk>
- Fitria Takahepis, N., Suprapti, F., & Priyo Hastono, S. (2021). Efektivitas Buerger Allen exercise Terhadap Peningkatan Aktivitas Fungsional Extremitas Bawah pada Lansia di BPLU Senja Cerah Manado. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 4(1), 23–29. <https://doi.org/10.56338/mppki.v4i1.1387>
- Fitriani, S. N., & Ranti, R. A. (2023). Pengaruh Senam Yoga terhadap Kekuatan Otot Ekstremitas Bawah pada Lansia di Panti Sosial Tresna Werdha Budi Mulia 2. *Journal JOUBAHS*, 03(02), 123–129.
- Fukuchi, C. A., Fukuchi, R. K., & Duarte, M. (2019). Effects of walking speed on gait biomechanics in healthy participants: A systematic review and meta-analysis. *Systematic Reviews*, 8(1), 1–11. <https://doi.org/10.1186/s13643-019-1063-z>
- Ghani, H. A., Alghwiri, A. A., Hisham, H., & Manaf, H. (2023). Lower Limb Muscle Fatigue Alters Spatiotemporal Gait Parameters and Turning Difficulty Characteristics in Parkinson's Disease. *Annals of Rehabilitation Medicine*, 47(4), 282–290. <https://doi.org/10.5535/arm.23067>

- Gimunová, M., Sebera, M., Kasović, M., Svobodová, L., & Vespalec, T. (2022). Spatio-Temporal Gait Parameters in Association with Medications and Risk of Falls in the Elderly. *Clinical Interventions in Aging*, 17(May), 873–883. <https://doi.org/10.2147/CIA.S363479>
- Hauptman, N., 2018. The Average Walking Stride Length. [Online] Available at: <https://livehealthy.chron.com/average-walking-stride-length-7494.htm>
- Hollman, J., McDade, E., & Petersen, R. (2011). Normative Spatiotemporal Gait Parameters in Older Adults. *Gait Posture*, 34(1), 111–118. <https://doi.org/10.1016/j.gaitpost.2011.03.024>. Normative
- Jahn, K., Zwergal, A., & Schniepp, R. (2010). Gangstörungen im alter - Klassifikation, diagnostik und therapie aus neurologischer sicht. *Deutsches Arzteblatt*, 107(17), 306–316. <https://doi.org/10.3238/arztebl.2010.0306>
- Kanko, R. M., Laende, E. K., Strutzenberger, G., Brown, M., Selbie, W. S., DePaul, V., Scott, S. H., & Deluzio, K. J. (2021). Assessment of spatiotemporal gait parameters using a deep learning algorithm-based markerless motion capture system. *Journal of Biomechanics*, 122, 110414. <https://doi.org/10.1016/j.jbiomech.2021.110414>
- Karba, S. K., Permadi, A. W., & Parwata, I. M. Y. (2024). Hubungan Aktivitas Fisik Terhadap Vo2Max Pada Lanjut Usia. *Healthy Tadulako Journal (Jurnal Kesehatan Tadulako)*, 10(1), 89–95. <https://doi.org/10.22487/htj.v10i1.1001>
- Kim, S. M., Kim, D. H., Yang, Y., Ha, S. W., & Han, J. H. (2018). Gait Patterns in Parkinson's Disease with or without Cognitive Impairment. *Dementia and Neurocognitive Disorders*, 17(2), 57. <https://doi.org/10.12779/dnd.2018.17.2.57>
- Lau, L. K., Wee, S. L., Pang, W. J. B., Chen, K. K., Jabbar, K. A., Yap, P. L. K., Mallya, J. U., Ng, D. H. M., Tan, Q. L. L., Seah, W. T., & Ng, T. P. (2020). Reference values of gait speed and gait spatiotemporal parameters for a south east asian population: The yishun study. *Clinical Interventions in Aging*, 15, 1753–1765. <https://doi.org/10.2147/CIA.S270407>
- Lein, D. H., Alotaibi, M., Almutairi, M., & Singh, H. (2022). Normative Reference Values and Validity for the 30-Second Chair-Stand Test in Healthy Young Adults. *International Journal of Sports Physical Therapy*, 17(5), 907–914. <https://doi.org/10.26603/001c.36432>
- Levine, D., Richards, J. D., & Whittle, M. W. (2012). Whittle's Gait Analysis. 5<sup>th</sup> ed. Elsevier
- Lintin, G. B., & Miranti. (2019). Hubungan Penurunan Kekuatan Otot dan Massa Otot dengan Proses Penuaan pada Individu. *Jurnal Kesehatan Tadulako*, 5(1), 1–62.
- Longobucco, Y., Krumpoch, S., Lauretani, F., Angileri, V., Sieber, C., Marzetti, E., Calvani, R., Cherubini, A., Landi, F., Bernabei, R., Freiburger, E., & Maggio, M. (2022). Gait characteristics in community-dwelling older persons with low skeletal muscle mass and low physical performance. *Aging Clinical and Experimental Research*, 34(7), 1563–1571. <https://doi.org/10.1007/s40520->

- Lupa, A. M., Hariyanto, T., & Ardyani, V. M. (2017). Perbedaan Tingkat Keseimbangan Tubuh Antara Lansia Laki-Laki dan Perempuan. *Nursing News*, 2(1), 454–461.
- McAllister, L. S., & Palombaro, K. M. (2020). Modified 30-Second Sit-to-Stand Test: Reliability and Validity in Older Adults Unable to Complete Traditional Sit-to-Stand Testing. *Journal of Geriatric Physical Therapy*, 43(3), 153–158. <https://doi.org/10.1519/JPT.0000000000000227>
- Meurisse, G. M., Bastien, G. J., & Schepens, B. (2019). Effect of age and speed on the step-to-step transition phase during walking. *Journal of Biomechanics*, 83(xxxx), 253–259. <https://doi.org/10.1016/j.jbiomech.2018.12.001>
- Millor, N., Lecumberri, P., Gómez, M., Martínez-Ramírez, A., & Izquierdo, M. (2013). An evaluation of the 30-s chair stand test in older adults: Frailty detection based on kinematic parameters from a single inertial unit. *Journal of NeuroEngineering and Rehabilitation*, 10(1), 1–9. <https://doi.org/10.1186/1743-0003-10-86>
- Muladi, A. (2022). Pengaruh Balance Exercise Terhadap Tingkat Keseimbangan Postural Dalam Menurunkan Resiko Jatuh Pada Lansia. *Intan Husada : Jurnal Ilmiah Keperawatan*, 10(02), 145–154. <https://doi.org/10.52236/ih.v10i2.248>
- Muñoz-Bermejo, L., Adsuar, J. C., Mendoza-Muñoz, M., Barrios-Fernández, S., Garcia-Gordillo, M. A., Pérez-Gómez, J., & Carlos-Vivas, J. (2021). Test-retest reliability of five times sit to stand test (Ftsst) in adults: A systematic review and meta-analysis. *Biology*, 10(6), 1–10. <https://doi.org/10.3390/biology10060510>
- Mustafa, D. G., Thanaya, S. A. P., Adiputra, L. M. S. H., & Saraswati, N. L. P. G. K. (2022). Hubungan Antara Kekuatan Otot Tungkai Bawah Dengan Risiko Jatuh Pada Lanjut Usia Di Desa Dauh Puri Klod, Denpasar Barat. *Majalah Ilmiah Fisioterapi Indonesia*, 10(1), 22. <https://doi.org/10.24843/mifi.2022.v10.i01.p05>
- Njoto, E. N. (2023). Sarkopenia pada Lanjut Usia: Patogenesis, Diagnosis dan Tata Laksana. *Jurnal Penyakit Dalam Indonesia*, 10(3). <https://doi.org/10.7454/jpdi.v10i3.1444>
- Nurhalimah, & Munawarah, M. (2020). Hubungan antara panjang langkah dengan keseimbangan dinamis pada pasien lanjut usia dengan kondisi knee osteoarthritis (OA) grade II. *Jurnal Ilmiah Fisioterapi*, 20(1), 32–39.
- Orihuela-Espejo, A., Álvarez-Salvago, F., Martínez-Amat, A., Boquete-Pumar, C., De Diego-Moreno, M., García-Sillero, M., Aibar-Almazán, A., & Jiménez-García, J. D. (2022). Associations between Muscle Strength, Physical Performance and Cognitive Impairment with Fear of Falling among Older Adults Aged ≥ 60 Years: A Cross-Sectional Study. In *International Journal of Environmental Research and Public Health* (Vol. 19, Issue 17). <https://doi.org/10.3390/ijerph191710504>
- Penelitian, J., Morfis, P., Gkaraveli, M., Kedokteran, D., Kesehatan, S. I., Nasional, U., Pendidikan, S., Olahraga, I., & Nasional, U. (2021). Pengaruh penuaan terhadap parameter gaya berjalan biomekanik pada lansia sehat dan risiko terjatuh. *September 2020*, 59–64.

- Ranti, R. A., Upe, A. A., Muhammadiyah, U., Hamka, P., Muhammadiyah, U., & Hamka, P. (2021). Analisis Hubungan Keseimbangan, Kekuatan Otot, Fleksibilitas Dan Faktor Lain Terhadap Risiko Jatuh Pada Lansia Di PSTW Budi Mulia 4 Jakarta. *Journal of Baja Health Science*, 1(1), 84–95. <https://ejournal.lppm-unbaja.ac.id/index.php/adkes/article/view/1176/686>
- Rasyiqah, F. (2019). Fungsi Kognitif Dengan Tingkat Resiko Jatuh Lansia Di Banda Aceh. *Idea Nursing Journal*, 10(2), 40–46.
- Rovendra, E., & Wulan Sari, N. (2022). Penyuluhan Dan Pemeriksaan Pola Jalan Pada Lansia Di Lapangan Wirabaraja Kota Bukittinggi. *Empowering Society Journal*, 3(1), 59–65.
- Rusjini, S. M. (2022). Manfaat Perangkat Elektronik Pada Gaya Berjalan dan Pengkajian Resiko Jatuh. *Journal of Innovation Research and Knowledge*, 1(8).
- Safarina, L., Triawati, A., Sesanelvira, M., & Suharjiman, S. (2023). Analisis Keterkaitan Panjang dan Lebar Langkah dengan Kecepatan Berjalan. *Journal of Telenursing (JOTING)*, 5(2), 3754–3762. <https://doi.org/10.31539/joting.v5i2.7924>
- Salamung, N., & Elmiyanti, N. (2021). Keperawatan Gerontik. 2021, 1–112.
- Salzman, B. (2011). Gait and balance disorders in older adults. *American Family Physician*, 82(1), 61–68.
- Sapti, A. (2018). Perkembangan Usia Mempengaruhi Kekuatan Otot Punggung Pada Orang Dewasa Usia 40-60 Tahun. *Gaster*, 16(1), 1. <https://doi.org/10.30787/gaster.v16i1.237>
- Sari, N. P. W. P., Manungkalit, M., Mare, A. C. B., & Sat, Y. M. M. S. (2023). Latihan Jalan Kaki untuk Meningkatkan Vitalitas Lansia. *BERDAYA: Jurnal Pendidikan Dan Pengabdian Kepada Masyarakat*, 6(1), 11–24. <https://doi.org/10.36407/berdaya.v6i1.1060>
- Savitri, E. P. D., & Herwana, E. (2020). Aktivitas berjalan meningkatkan bone mineral density pada perempuan pascamenopause. *Jurnal Biomedika Dan Kesehatan*, 3(3), 119–125. <https://doi.org/10.18051/jbiomedkes.2020.v3.119-125>
- Sawada, S., Ozaki, H., Natsume, T., Deng, P., Yoshihara, T., Nakagata, T., Osawa, T., Ishihara, Y., Kitada, T., Kimura, K., Sato, N., Machida, S., & Naito, H. (2021). The 30-s chair stand test can be a useful tool for screening sarcopenia in elderly Japanese participants. *BMC Musculoskeletal Disorders*, 22(1), 1–6. <https://doi.org/10.1186/s12891-021-04524-x>
- Sihombing, I., Wangko, S., & Kalangi, S. J. R. (2013). Peran Estrogen Pada Remodeling Tulang. *Jurnal Biomedik (Jbm)*, 4(3). <https://doi.org/10.35790/jbm.4.3.2012.1210>
- Slaght, J., Sénéchal, M., Hrubeniuk, T. J., Mayo, A., & Bouchard, D. R. (2017). Walking Cadence to Exercise at Moderate Intensity for Adults: A Systematic Review. *Journal of Sports Medicine*, 2017, 1–12. <https://doi.org/10.1155/2017/4641203>

- Stotz, A., Hamacher, D., & Zech, A. (2023). Relationship between Muscle Strength and Gait Parameters in Healthy Older Women and Men. *International Journal of Environmental Research and Public Health*, 20(7). <https://doi.org/10.3390/ijerph20075362>
- Sunantara, A. A. A. W., Mayun, I. G. N., & Suadnyana, I. A. A. (2022). Hubungan Kekuatan Otot Tungkai Dengan Kemampuan Fungsional Pada Lansia Di Banjar Jasan, Sebatu, Tegalalang, Gianyar. *Indonesian Journal of Physiotherapy Research and Education IJOPRE*, 3(1), 26–32.
- Suyanto, D. H., Paskaria, C., & Gunawan, D. (2021). Perbandingan Kekuatan Otot Dan Massa Otot Antara Wanita Lansia Aktif Dan Tidak Aktif Berolahraga. *Jurnal Ilmu Faal Olahraga Indonesia*, 4(1), 9. <https://doi.org/10.51671/jifo.v4i1.88>
- Utami, R. F., Syah, I., Kesehatan, F., Fort, U., & Bukittinggi, D. K. (2022). Analisis Faktor Yang Mempengaruhi Keseimbangan Lansia. *Jurnal Endurance*, 7(1), 23–30. <https://doi.org/10.22216/jen.v7i1.712>
- van Bloemendaal, M., Beelen, A., Kleissen, R. F. M., Geurts, A. C. H., Nollet, F., & Bus, S. A. (2019). Concurrent validity and reliability of a low-cost gait analysis system for assessment of spatiotemporal gait parameters. *Journal of Rehabilitation Medicine*, 51(6), 456–463. <https://doi.org/10.2340/16501977-2559>
- Vina Devi Kurniawati, & Widarti, R. (2023). Pengaruh Latihan Bodyweight Squat Terhadap Kekuatan Otot Tungkai Pada Lansia Wanita. *Physio Journal*, 3(2), 56–61. <https://doi.org/10.30787/phyjou.v3i2.971>
- Vitalistyawati, L. P. A., Sabakodi, U. G., & Darmawijaya, I. (2022). Hubungan Postur Kifosis Terhadap Keseimbangan Dinamis Pada Lanjut Usia. *Journal*, 2(4), 1047–1054.
- Widiyantari, A., Putra, I., Wahyuni, N., & Antari, N. (2023). *GAIT PATTERN DENGAN RISK OF FALLING PADA LANSIA DI DESA ADAT JIMBARAN*. 11, 81–85.
- windi wijayani. (2022). 6700. *Keseimbangan Dinamis Dengan Kecepatan Berjalan Pada Lansia Di Banjar Celuk Buruan Gianjar*, 2(5), 2097–2104.
- Wolff, C., Steinheimer, P., Warmerdam, E., Dahmen, T., Slusallek, P., Schlinkmann, C., Chen, F., Orth, M., Pohlemann, T., & Ganse, B. (2023). Effects of age, body height, body weight, body mass index and handgrip strength on the trajectory of the plantar pressure stance-phase curve of the gait cycle. *Frontiers in Bioengineering and Biotechnology*, 11(February), 1–9. <https://doi.org/10.3389/fbioe.2023.1110099>
- Yamaguchi, T., & Masani, K. (2019). Effects of age-related changes in step length and step width on the required coefficient of friction during straight walking. *Gait and Posture*, 69(December 2018), 195–201. <https://doi.org/10.1016/j.gaitpost.2019.02.005>
- Yuliadarwati, N. M., Agustina, M., Rahmanto, S., Susanti, S., & Septyorini. (2020). Gambaran Aktivitas Fisik Berkorelasi Dengan. *Jurnal Sport Science*, 4681, 107–112.

Yuliana, W., & Setyawati, E. I. E. (2021). Gambaran Tingkat Kemandirian Lansia Dalam Melakukan Activity of Daily Living (Adl). *JPK: Jurnal Penelitian Kesehatan*, 11(2), 1–7. <https://doi.org/10.54040/jpk.v11i2.219>

