

## DAFTAR PUSTAKA

- Abdurrahman Al Hakim Sampurna Putra S, R. (2021). Nilai Sensitivitas, Spesivitas, Positive, Predictive Value dan Negative Predictive Value Sphygnomamoter Digital Pada Skrining Hipertensi. *Jurnal Kedokteran Universitas Palangka Raya*, 9(1), 1210–1218. <https://doi.org/10.37304/jkupr.v9i1.2859>
- Agbaje, A. O. (2023). Arterial stiffness preceding metabolic syndrome in 3,862 adolescents: A mediation and temporal causal longitudinal birth cohort study. *American Journal of Physiology-Heart and Circulatory Physiology*, 324(6), H905–H911. <https://doi.org/10.1152/ajpheart.00126.2023>
- Alghamdi, Y. A., Al-Shahrani, F. S., Alanazi, S. S., Alshammari, F. A., Alkhudair, A. M., & Jatoi, N.-A. (2021). The Association of Blood Glucose Levels and Arterial Stiffness (Cardio-Ankle Vascular Index) in Patients With Type 2 Diabetes Mellitus. *Cureus*. <https://doi.org/10.7759/cureus.20408>
- Alvarez, S., Coffey, R., & Algotar, A. M. (2024). Prediabetes. Dalam *StatPearls*. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK459332/>
- American Diabetes Association. (2021). 2. Classification and Diagnosis of Diabetes: *Standards of Medical Care in Diabetes—2021*. *Diabetes Care*, 44(Supplement\_1), S15–S33. <https://doi.org/10.2337/dc21-S002>
- Aroor, A. R., Jia, G., & Sowers, J. R. (2018). Cellular mechanisms underlying obesity-induced arterial stiffness. *American Journal of Physiology-*

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

*Regulatory, Integrative and Comparative Physiology*, 314(3), R387–R398.

<https://doi.org/10.1152/ajpregu.00235.2016>

Bawazier, L. A., Buntaran, S., Sianipar, W., & Kekalih, A. (2019). Blood Pressure Profile of Young Adults at the Faculty of Medicine Universitas Indonesia. *Acta Med Indones*, 51(1).

Boutouyrie, P., Chowienczyk, P., Humphrey, J. D., & Mitchell, G. F. (2021). Arterial Stiffness and Cardiovascular Risk in Hypertension. *Circulation Research*, 128(7), 864–886.  
<https://doi.org/10.1161/CIRCRESAHA.121.318061>

Budoff, M. J., Alpert, B., Chirinos, J. A., Fernhall, B., Hamburg, N., Kario, K., Kullo, I., Matsushita, K., Miyoshi, T., Tanaka, H., Townsend, R., & Valensi, P. (2022). Clinical Applications Measuring Arterial Stiffness: An Expert Consensus for the Application of Cardio-Ankle Vascular Index. *American Journal of Hypertension*, 35(5), 441–453.  
<https://doi.org/10.1093/ajh/hpab178>

Bull, F. C., Maslin, T. S., & Armstrong, T. (2009). Global Physical Activity Questionnaire (GPAQ): Nine Country Reliability and Validity Study. *Journal of Physical Activity and Health*, 6(6), 790–804.  
<https://doi.org/10.1123/jpah.6.6.790>

Chobanian, A. V., Bakris, G. L., Black, H. R., Cushman, W. C., Green, L. A., Izzo, J. L., Jones, D. W., Materson, B. J., Oparil, S., Wright, J. T., Roccella, E. J., & the National High Blood Pressure Education Program Coordinating Committee. (2003). Seventh Report of the Joint National Committee on

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *Hypertension*, 42(6), 1206–1252. <https://doi.org/10.1161/01.HYP.0000107251.49515.c2>
- Devora, A. (2023). *Pengaruh Latihan Relaksasi Napas Dalam Terhadap Tingkat Stres dan Tekanan Darah Mahasiswa Fakultas Kedokteran Universitas Pembangunan Nasional Veteran Jakarta 2022*.
- DuPont, J. J., Kenney, R. M., Patel, A. R., & Jaffe, I. Z. (2019). Sex differences in mechanisms of arterial stiffness. *British Journal of Pharmacology*, 176(21), 4208–4225. <https://doi.org/10.1111/bph.14624>
- Erman, I., Damanik, H. D., & Sya'diyah, S. (2021). Hubungan Merokok dengan Kejadian Hipertensi di Puskesmas Kampus Palembang. *JKM: Jurnal Keperawatan Merdeka*, 1(1), 54–61. <https://doi.org/10.36086/jkm.v1i1.983>
- Fuhr, J. C., Ramos, M. E. K., Piovesan, F., Renner, L. D. O., & Siqueira, L. D. O. (2022). Relationship of advanced glycation end-products in hypertension in diabetic patients: A systematic review. *Brazilian Journal of Nephrology*, 44(4), 557–572. <https://doi.org/10.1590/2175-8239-jbn-2022-0006en>
- Ghamari, M. (2018). A review on wearable photoplethysmography sensors and their potential future applications in health care. *International Journal of Biosensors & Bioelectronics*, 4(4). <https://doi.org/10.15406/ijbsbe.2018.04.00125>
- Grillo, Salvi, Coruzzi, Salvi, & Parati. (2019). Sodium Intake and Hypertension. *Nutrients*, 11(9), 1970. <https://doi.org/10.3390/nu11091970>

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Hahad, O., Schmitt, V. H., Arnold, N., Keller, K., Prochaska, J. H., Wild, P. S., Schulz, A., Lackner, K. J., Pfeiffer, N., Schmidtman, I., Michal, M., Schattenberg, J. M., Tüscher, O., Daiber, A., & Münzel, T. (2023). Chronic cigarette smoking is associated with increased arterial stiffness in men and women: Evidence from a large population-based cohort. *Clinical Research in Cardiology*, *112*(2), 270–284. <https://doi.org/10.1007/s00392-022-02092-1>
- Hardiman, R. M., & Siregar, F. M. (2022). Prevalensi dan faktor risiko prehipertensi dan hipertensi pada mahasiswa tingkat akhir Fakultas Kedokteran Universitas Riau. *Jurnal Kedokteran Syiah Kuala*, *22*(1). <https://doi.org/10.24815/jks.v22i1.21257>
- Holm, H., Kennbäck, C., Laucyte-Cibulskiene, A., Nilsson, P. M., & Jujic, A. (2024). The impact of prediabetes and diabetes on endothelial function in a large population-based cohort. *Blood Pressure*, *33*(1), 2298309. <https://doi.org/10.1080/08037051.2023.2298309>
- Hrabak-Paar, M., Kircher, A., Al Sayari, S., Kopp, S., Santini, F., Schmieder, R. E., Kachenoura, N., Yates, D., Langenickel, T., Bremerich, J., & Heye, T. (2020). Variability of MRI Aortic Stiffness Measurements in a Multicenter Clinical Trial Setting: Intraobserver, Interobserver, and Intracenter Variability of Pulse Wave Velocity and Aortic Strain Measurement. *Radiology: Cardiothoracic Imaging*, *2*(2), e190090. <https://doi.org/10.1148/ryct.2020190090>

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Hwang, C.-L., Muchira, J., Hibner, B. A., Phillips, S. A., & Piano, M. R. (2022). Alcohol Consumption: A New Risk Factor for Arterial Stiffness? *Cardiovascular Toxicology*, 22(3), 236–245. <https://doi.org/10.1007/s12012-022-09728-8>
- Ikonomidis, I., & Thymis, J. (2023). The vicious circle of arterial elasticity, blood pressure, glycemia, and renal function. *Hypertension Research*, 46(6), 1599–1602. <https://doi.org/10.1038/s41440-023-01262-6>
- Istiana, D., Purqoti, D. N. S., Musmuliadin, M., Rispawati, B. H., Romadhonika, F., & Dingle, K. (2022). The Relationship between Physical Activity and the Incidence of Hypertension at the Work Area of the Ampenan Health Center. *STRADA Jurnal Ilmiah Kesehatan*, 11(1), 45–50. <https://doi.org/10.30994/sjik.v11i1.884>
- Jeyashree, P., Dilara, K., Maruthy, K., & Dhamodhini, K. (2024). Comparison of Arterial Stiffness among Prehypertensive and Normotensive Subjects using Photo Pulse Plethysmography: A Pilot Study. *journal of clinical and diagnostic research*. <https://doi.org/10.7860/JCDR/2024/67377.19131>
- Jug, J., & Prkacin, I. (2023). Arterial Stiffness in Prehypertensive patients with Prediabetes—A Pilot Study. *Journal of Hypertension*, 41(Suppl 3), e278. <https://doi.org/10.1097/01.hjh.0000941884.90100.31>
- Kacker, S., & Saboo, N. (2018). Prediabetes: Pathogenesis and Adverse Outcomes. *International Journal of Medical Research Professionals*, 1–7. <https://doi.org/10.21276/ijmrp.2018.4.2.001>

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Karimpour, P., May, J. M., & Kyriacou, P. A. (2023). Photoplethysmography for the Assessment of Arterial Stiffness. *Sensors*, 23(24), 9882. <https://doi.org/10.3390/s23249882>
- Kc, K., Katwal, S., Yadav, G. K., Adhikari, A., Thapa, R. K., Jha, S. K., Sharma, A., Rijal, T., Giri, S., & Khadka, S. (2023). Family history of hypertension and its relation to other variables in hypertensive patients: A cross-sectional study from a tertiary care hospital. *International Journal of Surgery: Global Health*, 6(5). <https://doi.org/10.1097/GH9.0000000000000235>
- Kim, H.-L. (2023). Arterial stiffness and hypertension. *Clinical Hypertension*, 29(1), 31. <https://doi.org/10.1186/s40885-023-00258-1>
- Kobayashi, R., Sato, K., Sakazaki, M., Nagai, Y., Iwanuma, S., Ohashi, N., & Hashiguchi, T. (2021). *Cardiology Journal*, 28(3), 446–452. <https://doi.org/10.5603/CJ.a2019.0108>
- Lacolley, P., Regnault, V., & Laurent, S. (2020). Mechanisms of Arterial Stiffening: From Mechanotransduction to Epigenetics. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 40(5), 1055–1062. <https://doi.org/10.1161/ATVBAHA.119.313129>
- Lamprou, S., Koletsos, N., Mintziori, G., Anyfanti, P., Trakatelli, C., Kotsis, V., Gkaliagkousi, E., & Triantafyllou, A. (2023). Microvascular and Endothelial Dysfunction in Prediabetes. *Life*, 13(3), 644. <https://doi.org/10.3390/life13030644>
- Lan, Y., Liu, H., Liu, J., Zhao, H., & Wang, H. (2019). Gender Difference of the Relationship between Arterial Stiffness and Blood Pressure Variability in

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Participants in Prehypertension. *International Journal of Hypertension*, 2019, 1–7. <https://doi.org/10.1155/2019/7457385>
- Laurent, S., & Boutouyrie, P. (2022). Arterial stiffness and pulsatile hemodynamics in systemic hypertension. Dalam *Textbook of Arterial Stiffness and Pulsatile Hemodynamics in Health and Disease* (hlm. 445–455). Elsevier. <https://doi.org/10.1016/B978-0-323-91391-1.00029-7>
- Li, C.-H., Lu, F.-H., Yang, Y.-C., Wu, J.-S., & Chang, C.-J. (2019). Increased Arterial Stiffness in Prediabetic Subjects Recognized by Hemoglobin A1c with Postprandial Glucose but Not Fasting Glucose Levels. *Journal of Clinical Medicine*, 8(5), 603. <https://doi.org/10.3390/jcm8050603>
- Li, X., Chattopadhyay, K., Chen, X., Li, J., Xu, M., Chen, X., & Li, L. (2023). Association Between Physical Activity and Arterial Stiffness in Patients with Type 2 Diabetes in Ningbo, China: A Cross-Sectional Study. *Diabetes, Metabolic Syndrome and Obesity, Volume 16*, 4133–4141. <https://doi.org/10.2147/DMSO.S438344>
- Liang, X., Li, D., Wang, Z., Cheng, Y., Mou, K., Ye, C., Duan, Y., & Yang, Y. (2024). Aortic Stiffness Measured by Carotid Femoral-Pulse Wave Velocity at Different Stages of Normal Glucose, Prediabetes, and Diabetes Mellitus: A Systematic Review and Meta-Analysis. *Reviews in Cardiovascular Medicine*, 25(9), 339. <https://doi.org/10.31083/j.rcm2509339>
- Liang, X., Yang, Y., Wang, Z., wang, X., Du, J., hu, C., & Duan, Y. (2023). Investigation of arterial stiffness and its influencing factors in prediabetic

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- population. *Chinese Journal of Ultrasonography*, 32(2), 117–122.  
<https://doi.org/10.3760/cma.j.cn131148-20220803-00535>
- Liang, Y., Wang, M., Wang, C., Liu, Y., Naruse, K., & Takahashi, K. (2021). The Mechanisms of the Development of Atherosclerosis in Prediabetes. *International Journal of Molecular Sciences*, 22(8), 4108.  
<https://doi.org/10.3390/ijms22084108>
- Lin, X., & Li, H. (2021). Obesity: Epidemiology, Pathophysiology, and Therapeutics. *Frontiers in Endocrinology*, 12, 706978.  
<https://doi.org/10.3389/fendo.2021.706978>
- Loehr, L. R., Meyer, M. L., Poon, A. K., Selvin, E., Palta, P., Tanaka, H., Pankow, J. S., Wright, J. D., Griswold, M. E., Wagenknecht, L. E., & Heiss, G. (2016). Prediabetes and Diabetes Are Associated With Arterial Stiffness in Older Adults: The ARIC Study. *American Journal of Hypertension*, 29(9), 1038–1045. <https://doi.org/10.1093/ajh/hpw036>
- Lydia, A., Setiati, S., Soejono, C. H., Istanti, R., Marsigit, J., & Azwar, M. K. (2021). Prevalence of prehypertension and its risk factors in midlife and late life: Indonesian family life survey 2014–2015. *BMC Public Health*, 21(1), 493. <https://doi.org/10.1186/s12889-021-10544-y>
- Maruhashi, T., Kajikawa, M., Kishimoto, S., Takaeko, Y., Yamaji, T., Harada, T., Hashimoto, Y., Han, Y., Aibara, Y., Mohamad Yusoff, F., Chayama, K., Nakashima, A., Goto, C., Nakano, Y., & Higashi, Y. (2021). Volume Elastic Modulus, Vascular Function, and Vascular Structure in Patients with



- Cardiovascular Risk Factors. *Journal of Atherosclerosis and Thrombosis*, 28(9), 963–973. <https://doi.org/10.5551/jat.59261>
- McClary, K. N., & Massey, P. (2024). Ankle Brachial Index. Dalam *StatPearls*. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK544226/>
- Mescher, A. L. (2024). *Junqueira's basic histology: Text and atlas* (Seventeenth edition). McGraw Hill.
- Miyoshi, T., & Ito, H. (2021). Arterial stiffness in health and disease: The role of cardio–ankle vascular index. *Journal of Cardiology*, 78(6), 493–501. <https://doi.org/10.1016/j.jjcc.2021.07.011>
- Muntner, P., Shimbo, D., Carey, R. M., Charleston, J. B., Gaillard, T., Misra, S., Myers, M. G., Ogedegbe, G., Schwartz, J. E., Townsend, R. R., Urbina, E. M., Viera, A. J., White, W. B., Wright, J. T., & on behalf of the American Heart Association Council on Hypertension; Council on Cardiovascular Disease in the Young; Council on Cardiovascular and Stroke Nursing; Council on Cardiovascular Radiology and Intervention; Council on Clinical Cardiology; and Council on Quality of Care and Outcomes Research. (2019). Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association. *Hypertension*, 73(5). <https://doi.org/10.1161/HYP.0000000000000087>
- Murakami, T., Asai, K., Kadono, Y., Nishida, T., Nakamura, H., & Kishima, H. (2019). Assessment of Arterial Stiffness Index Calculated from Accelerated Photoplethysmography. *Artery Research*, 25(1–2), 37–40. <https://doi.org/10.2991/artres.k.191120.001>

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Nakano, H., Shiina, K., Takahashi, T., Fujii, M., Iwasaki, Y., Matsumoto, C., Yamashina, A., Chikamori, T., & Tomiyama, H. (2022). Bidirectional Longitudinal Relationships Between Arterial Stiffness and Hypertension Are Independent of Those Between Arterial Stiffness and Diabetes: A Large-Scale Prospective Observational Study in Employees of a Japanese Company. *Journal of the American Heart Association*, *11*(13), e025924. <https://doi.org/10.1161/JAHA.121.025924>
- Perkeni. (2021). *Pedoman Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 Dewasa di Indonesia*. PB. PERKENI.
- Pradono, J., Kusumawardani, N., & Rachmalina, R. (2020). *Hipertensi: Pembunuh terselubung di Indonesia*. Badan Penelitian dan Pengembangan Kesehatan, Kementerian Kesehatan RI.
- Pramono, A., Fitranti, D. Y., Rahmawati, E. R., & Ayustaningwarno, F. (2020). Efek Pemberian Susu Kedelari-Jahe Terhadap Kadar Glukosa Darah Puasa Wanita Pre-Menopause Prediabetes. *Journal of Nutrition College*, *9*(2), 94–99. <https://doi.org/10.14710/jnc.v9i2.26970>
- Purba, R. S. (2023). Hubungan Massa Otot dan Gula Darah Puasa dengan Elastisitas Vaskular Pada Mahasiswa Fakultas Kedokteran Universitas Pembangunan Nasional Veteran Jakarta Tahun 2023.
- Putri, T. Z., Bustamam, N., Faranita, T., & Irmarahayu, A. (2024). The Relationship Between COVID-19 History and Arterial Vascular Elasticity Measured Using Accelerated Photoplethysmograph Analyzer in Medical Students. *Acta Med Indones*, *56*(3).

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Rafan, S. N., Zakaria, R., Ismail, S. B., & Muhamad, R. (2018). Prevalence of prehypertension and its associated factors among adults visiting outpatient clinic in Northeast Malaysia. *Journal of Taibah University Medical Sciences*, 13(5), 459–464. <https://doi.org/10.1016/j.jtumed.2018.06.005>
- Rehman, S., Hashmi, M. F., & Nelson, V. L. (2024). Blood Pressure Measurement. Dalam *StatPearls*. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK482189/>
- Rico Martín, S., Vassilenko, V., De Nicolás Jiménez, J. M., Rey Sánchez, P., Serrano, A., Martínez Alvarez, M., Calderón García, J. F., & Sánchez Muñoz-Torrero, J. F. (2020). Cardio-ankle vascular index (CAVI) measured by a new device: Protocol for a validation study. *BMJ Open*, 10(10), e038581. <https://doi.org/10.1136/bmjopen-2020-038581>
- RISKESDAS (Ed.). (2018). *Laporan nasional Riskesdas 2018*. Kementerian Kesehatan, Republik Indonesia, Badan Penelitian dan Pengembangan Kesehatan.
- Rubio-Guerra, A. F., Garro-Almendaro, A. K., Lozano-Nuevo, J. J., Arana-Pazos, K. C., Duran-Salgado, M. B., & Morales-López, H. (2018). Prehypertension is associated with peripheral arterial disease and low ankle-brachial index. *Indian Heart Journal*, 70(4), 502–505. <https://doi.org/10.1016/j.ihj.2017.11.013>
- Sherwood, L. (2012). *Introduction to human physiology* (8. ed). Brooks/Cole, Cengage Learning.

- Solanki, J. D., Vohra, A. S., Hirani, C. N., & Bhatt, D. N. (2024). Arterial stiffness is associated with prehypertension in both non-hypertensives and treated hypertensives—A matched case control study. *Indian Heart Journal*, *76*(3), 224–228. <https://doi.org/10.1016/j.ihj.2024.06.007>
- Srivastava, A., Mirza, T. M., & Sharan, S. (2024). Prehypertension. Dalam *StatPearls*. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK538313/>
- Suboh, M. Z., Jaafar, R., Nayan, N. A., Harun, N. H., & Mohamad, M. S. F. (2022). Analysis on Four Derivative Waveforms of Photoplethysmogram (PPG) for Fiducial Point Detection. *Frontiers in Public Health*, *10*, 920946. <https://doi.org/10.3389/fpubh.2022.920946>
- Sudikno, S., Mubasyiroh, R., Rachmalina, R., Arfines, P. P., & Puspita, T. (2023). Prevalence and associated factors for prehypertension and hypertension among Indonesian adolescents: A cross-sectional community survey. *BMJ Open*, *13*(3), e065056. <https://doi.org/10.1136/bmjopen-2022-065056>
- Syukri, Mohd., Nomiko, D., & Sari, I. P. (2022). Kejadian Prediabetes pada Kelompok Usia Dewasa di Kota Jambi. *Jurnal Keperawatan Silampari*, *6*(1), 19–27. <https://doi.org/10.31539/jks.v6i1.3846>
- Szaló, G., Hellgren, M. I., Allison, M., Li, Y., Råstam, L., Rådholm, K., Bollano, E., Duprez, D. A., Jacobs, D. R., Lindblad, U., & Daka, B. (2023). Impaired artery elasticity predicts cardiovascular morbidity and mortality- A longitudinal study in the Vara-Skövde Cohort. *Journal of Human*

*Hypertension*, 38(2), 140–145. <https://doi.org/10.1038/s41371-023-00867-1>

Tang, B., Luo, F., Zhao, J., Ma, J., Tan, I., Butlin, M., Avolio, A., & Zuo, J. (2020). Relationship between body mass index and arterial stiffness in a health assessment Chinese population. *Medicine*, 99(3), e18793. <https://doi.org/10.1097/MD.00000000000018793>

Tian, X., Zuo, Y., Chen, S., Zhang, Y., Zhang, X., Xu, Q., Wu, S., & Wang, A. (2022). Hypertension, Arterial Stiffness, and Diabetes: A Prospective Cohort Study. *Hypertension*, 79(7), 1487–1496. <https://doi.org/10.1161/HYPERTENSIONAHA.122.19256>

Triantafyllias, K., Thiele, L.-E., Cavagna, L., Baraliakos, X., Bertias, G., & Schwarting, A. (2023). Arterial Stiffness as a Surrogate Marker of Cardiovascular Disease and Atherosclerosis in Patients with Arthritides and Connective Tissue Diseases: A Literature Review. *Diagnostics*, 13(11), 1870. <https://doi.org/10.3390/diagnostics13111870>

Tucker, W. D., Arora, Y., & Mahajan, K. (2024). Anatomy, Blood Vessels. Dalam *StatPearls*. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK470401/>

Vandercappellen, E. J., Henry, R. M. A., Savelberg, H. H. C. M., Van Der Berg, J. D., Reesink, K. D., Schaper, N. C., Eussen, S. J. P. M., Van Dongen, M. C. J. M., Dagnelie, P. C., Schram, M. T., Van Greevenbroek, M. M. J., Wesselius, A., Van Der Kallen, C. J. H., Köhler, S., Stehouwer, C. D. A., & Koster, A. (2020). Association of the Amount and Pattern of Physical

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]

- Activity With Arterial Stiffness: The Maastricht Study. *Journal of the American Heart Association*, 9(20), e017502.  
<https://doi.org/10.1161/JAHA.120.017502>
- Vatner, S. F., Zhang, J., Vyzas, C., Mishra, K., Graham, R. M., & Vatner, D. E. (2021). Vascular Stiffness in Aging and Disease. *Frontiers in Physiology*, 12, 762437. <https://doi.org/10.3389/fphys.2021.762437>
- Wang, T., Mao, J., Bo, S., Zhang, L., & Li, Q. (2024). Acute effects of resistance-type and cycling-type high-intensity interval training on arterial stiffness, cardiac autonomic modulation and cardiac biomarkers. *BMC Sports Science, Medicine and Rehabilitation*, 16(1), 14. <https://doi.org/10.1186/s13102-024-00806-8>
- Wijaya, A., Wande, N., & Wirawati, I. A. P. (2019). Hubungan lingkaran perut dengan kadar gula darah puasa pada mahasiswa Fakultas Kedokteran Universitas Udayana angkatan 2014. *Intisari Sains Medis*, 10(2). <https://doi.org/10.15562/ism.v10i2.191>
- Wu, S., Chen, D., Zeng, X., Wen, J., Zhou, C., Xiao, K., Hu, P., & Chen, W. (2018). Arterial stiffness is associated with target organ damage in subjects with pre-hypertension. *Archives of Medical Science*, 14(6), 1374–1380. <https://doi.org/10.5114/aoms.2017.69240>
- Zheng, M., Zhang, X., Chen, S., Song, Y., Zhao, Q., Gao, X., & Wu, S. (2020). Arterial Stiffness Preceding Diabetes: A Longitudinal Study. *Circulation Research*, 127(12), 1491–1498. <https://doi.org/10.1161/CIRCRESAHA.120.317950>

**Kia Iglesias Pangaribuan, 2025**

**HUBUNGAN PREDIABETES DAN PREHIPERTENSI DENGAN ELASTISITAS VASKULAR PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

UPN Veteran Jakarta, Fakultas Kedokteran, Program Studi Kedokteran Program Sarjana  
[www.upnvj.ac.id](http://www.upnvj.ac.id)-[www.library.upnvj.ac.id](http://www.library.upnvj.ac.id)-[www.repository.upnvj.ac.id](http://www.repository.upnvj.ac.id)]