

DAFTAR PUSTAKA

- Abassi, Z., Khoury, E. E., Karram, T., & Aronson, D. (2022). Edema formation in congestive heart failure and the underlying mechanisms. *Frontiers in Cardiovascular Medicine*, 9. <https://doi.org/10.3389/fcvm.2022.933215>
- Ahmed, F., Hetty, S., Laterveer, R., Surucu, E. B., Mathioudaki, A., Hornbrinck, E., Patsoukaki, V., Olausson, J., Sundbom, M., Svensson, M. K., Pereira, M. J., & Eriksson, J. W. (2025). Altered expression of aromatase and estrogen receptors in adipose tissue from men with obesity or type 2 diabetes. *The Journal of Clinical Endocrinology & Metabolism*, 110(10), e3410–e3424. <https://doi.org/10.1210/clinem/dgaf038>
- Ahmed, S. K., & Mohammed, R. A. (2025). Obesity: Prevalence, causes, consequences, management, preventive strategies and future research directions. *Metabolism Open*, 27, 100375. <https://doi.org/10.1016/j.metop.2025.100375>
- Althubaiti, A. (2022). Sample size determination: A practical guide for health researchers. *Journal of General and Family Medicine*, 24(2), 72–78. <https://doi.org/10.1002/jgf2.600>
- Amir, M. N., Aulia, R., Suardi, H., Hatifah, Z. A., Ismail, I., Raihan, M., & Evary, Y. M. (2023). Studi *In vivo* ekstrak etanol kulit buah nangka (*Artocarpus heterophyllus* L.) sebagai kandidat obat analgetik terhadap model hewan uji mencit (*Mus musculus*). *Jurnal Mandala Pharmacon Indonesia*, 9(1), 139–147. <https://doi.org/10.35311/jmpi.v9i1.338>
- Ando, Y., Ohta, Y., Munetsuna, E., Yamada, H., Nouchi, Y., Kageyama, I., Mizuno, G., Yamazaki, M., Fujii, R., Ishikawa, H., Suzuki, K., Hashimoto, S., & Ohashi, K. (2022). Laboratory analysis of glucose, fructose, and sucrose contents in Japanese common beverages for the exact assessment of beverage-derived sugar intake. *Fujita Medical Journal*, 9(2), 126–133. <https://doi.org/10.20407/fmj.2022-009>
- Anggraini, N. V., & Luhur, L. (2025). The relationship of consumption of sweetened beverages with the risk of obesity in adolescents at High School State 53 Jakarta. *Jurnal Ilmiah Keperawatan Altruistik*, 8(1), 1–17. <https://doi.org/10.48079/jika.v8i1.116>
- Arneth, B. (2024). Mechanisms of insulin resistance in patients with obesity. *Endocrines*, 5(2), 153–165. <https://doi.org/10.3390/endocrines5020011>
- Baskara, S. C., Nasrulloh, N., & Marjan, A. Q. (2024). Pengaruh *food bar* berbasis daun katuk dan daun torbangun pada profil toksisitas tikus putih. *Amerta Nutrition*, 8(3SP), 336–343. <https://doi.org/10.20473/amnt.v8i3sp.2024.336-343>
- Bastías-Pérez, M., Serra, D., & Herrero, L. (2020). Dietary options for rodents in the study of obesity. *Nutrients*, 12(11), 3234. <https://doi.org/10.3390/nu12113234>

- Boutari, C., & Mantzoros, C. S. (2022). A 2022 update on the epidemiology of obesity and a call to action: As its twin COVID-19 pandemic appears to be receding, the obesity and dysmetabolism pandemic continues to rage on. *Metabolism*, 133, 155217. <https://doi.org/10.1016/j.metabol.2022.155217>
- Buyukdere, Y., Gulec, A., & Akyol, A. (2019). Cafeteria diet increased adiposity in comparison to high fat diet in young male rats. *PeerJ*, 7, e6656. <https://doi.org/10.7717/peerj.6656>
- Charles River Laboratories. (2026). Wistar IGS Rat–Growth Chart. Retrieved March 03, 2026, from <https://www.criver.com/products-services/find-model/wistar-igs-rat?region=3616>
- Chicco, D., Warrens, M. J., & Jurman, G. (2021). The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE and RMSE in regression analysis evaluation. *PeerJ Computer Science*, 7, e623. <https://doi.org/10.7717/peerj-cs.623>
- Creager, M. A., Beckman, J. A., & Loscalzo, J. (2013). Vascular medicine: A companion to Braunwald's heart disease. In *Elsevier eBooks*. <https://doi.org/10.1016/c2009-0-63388-2>
- Dias, M., Reis, S. A. D., Da Conceição, L. L., De Oliveira Sedyama, C. M. N., Pereira, S. S., De Oliveira, L. L., Peluzio, M. D. C. G., Martinez, J. A., & Milagro, F. I. (2021). Diet-induced obesity in animal models: points to consider and influence on metabolic markers. *Diabetology & Metabolic Syndrome*, 13(1), 32. <https://doi.org/10.1186/s13098-021-00647-2>
- Dharmayanti, A. W. S., Pratama, E. R., Kusumawardani, B., Hamzah, Z., Suhartini, S., Indriana, T., & Fatmawati, D. W. A. (2023). The effect of physical-psychological and psychological stress on blood glucose levels (*in vivo* study). *Insisiva Dental Journal Majalah Kedokteran Gigi Insisiva*, 12(1), 12–19. <https://doi.org/10.18196/di.v12i1.13945>
- Dhondge, R. H., Agrawal, S., Patil, R., Kadu, A., & Kothari, M. (2024). A comprehensive review of metabolic syndrome and its role in cardiovascular disease and type 2 diabetes mellitus: mechanisms, risk factors, and management. *Cureus*, 16(8), e67428. <https://doi.org/10.7759/cureus.67428>
- fatsecret. (n.d.). *Makanan dan Merek di Indonesia*. Fatsecret. Retrieved April 10, 2026, from <https://www.fatsecret.co.id/kalori-gizi>
- Fazzino, T. L., Dorling, J. L., Apolzan, J. W., & Martin, C. K. (2021). Meal composition during an ad libitum buffet meal and longitudinal predictions of weight and percent body fat change: The role of hyper-palatable, energy dense, and ultra-processed foods. *Appetite*, 167, 105592. <https://doi.org/10.1016/j.appet.2021.105592>

- Feješ, A., Sušienková, P., Mihalovičová, L., Kunšteková, V., Gurecká, R., Borbélyová, V., Celec, P., & Šebeková, K. (2025). Cafeteria and fast-food diets induce neuroinflammation, social deficits, but a different cardiometabolic phenotype. *Nutrients*, 17(22), 3614. <https://doi.org/10.3390/nu17223614>
- Ferdina, A. R., Arfines, P. P., & Aryastami, N. K. (2024). Obesity in urban Indonesia: Evidence from the 2007 and 2018 Basic Health Research. *Medical Journal of Indonesia*, 33(2), 119–127. <https://doi.org/10.13181/mji.oa.247183>
- Ferraz, A. S. M., Moraes, R. C. M., Ribeiro, N. A., Andrade, F. T., Martins, M. C. C., & Ceccatto, V. M. (2016). Use of murinometrics indices and bioelectrical impedance (BIA) in the determination of experimental obesity in oophorectomized rats. *Acta Scientiarum*, 38(4), 451–456.
- Fitria, L., Mulyati, Tiraya, C. M., & Budi, A. S. (2015). Profil reproduksi jantan tikus (*Rattus norvegicus* Berkenhout, 1769) galur Wistar stadia muda, pradewasa, dan dewasa. *Jurnal Biologi Papua*, 7(1), 29–36. <https://doi.org/10.31957/jbp.429>
- Fitriliani, A., Pramesona, B. A., & Nareswari, S. (2023). Obesity in children : Long-term causes and consequences. *Medical Profession Journal of Lampung*, 13(1), 104–109. <https://doi.org/10.53089/medula.v13i1.605>
- Francescato, M., Geat, M., Stel, G., & Cauci, S. (2011). Accuracy of a portable glucose meter and of a continuous glucose monitoring device used at home by patients with type 1 diabetes. *Clinica Chimica Acta*, 413(1–2), 312–318. <https://doi.org/10.1016/j.cca.2011.10.012>
- Global Burden of Disease Study 2019 (GBD 2019) Covariates 1980-2019 | GHDX*. (n.d.). Retrieved February 14, 2026, from <https://ghdx.healthdata.org/record/global-burden-disease-study-2019-gbd-2019-covariates-1980-2019>
- Gomez-Smith, M., Karthikeyan, S., Jeffers, M. S., Janik, R., Thomason, L. A., Stefanovic, B., & Corbett, D. (2016). A physiological characterization of the cafeteria diet model of metabolic syndrome in the rat. *Physiology & Behavior*, 167, 382–391. <https://doi.org/10.1016/j.physbeh.2016.09.029>
- Gregorio, B., De Oliveira, F., Costa, W., & Sampaio, F. B. (2018). Resveratrol attenuates metabolic, sperm, and testicular changes in adult Wistar rats fed a diet rich in lipids and simple carbohydrates. *Asian Journal of Andrology*, 21(2), 201. https://doi.org/10.4103/aja.aja_67_18
- Hasek, L. Y., Phillips, R. J., Hayes, A. M. R., Kinzig, K., Zhang, G., Powley, T. L., & Hamaker, B. R. (2020). Carbohydrates designed with different digestion rates modulate gastric emptying response in rats. *International Journal of Food Sciences and Nutrition*, 71(7), 839–844. <https://doi.org/10.1080/09637486.2020.1738355>

- Hossain, M. J., Kendig, M. D., Wild, B. M., Morris, M. J., & Arnold, R. (2021). Effects of diet reversal on metabolic and peripheral neuropathy endpoints in a rat model of cafeteria diet-induced obesity. *Metabolism*, *116*, 154638. <https://doi.org/10.1016/j.metabol.2020.154638>
- Huleihel, M., Jorban, A., & Lunenfeld, E. (2024). Estrogen specifically decreased the expression of round spermatid, but not other markers of spermatogenesis under *in vitro* maturation conditions; possible regulation by Sertoli and Leydig cells. *Fertility and Sterility*, *122*(4), e312. <https://doi.org/10.1016/j.fertnstert.2024.07.950>
- Husna, F., Suyatna, F. D., Arozal, W., & Purwaningsih, E. H. (2019). Model hewan coba pada penelitian diabetes. *Pharmaceutical Sciences and Research*, *6*(3), 131–141. <https://doi.org/10.7454/psr.v6i3.4531>
- IACUC: Anesthesia (Guideline). (2026). Vertebrate Animal Research - Office of the Vice President for Research | the University of Iowa. Retrieved April 13, 2026, from <https://animal.research.uiowa.edu/iacuc-guidelines-anesthesia>
- Isaac, U. E., Oyo-Ita, E., Igwe, N. P., & Ije, E. L. (2023). Preparation of histology slides and photomicrographs: Indispensable techniques in anatomic education. *Anatomy Journal of Africa*, *12*(1), 2252–2262. <https://doi.org/10.4314/aja.v12i1.1>
- Kang, Y., Li, P., Yuan, S., Fu, S., Zhang, X., Zhang, J., Dong, C., Xiong, R., Zhao, H., & Huang, D. (2025). Progress in investigating the impact of obesity on male reproductive function. *Biomedicines*, *13*(9), 2054. <https://doi.org/10.3390/biomedicines13092054>
- La Russa, D., Giordano, F., Marrone, A., Parafati, M., Janda, E., & Pellegrino, D. (2019). Oxidative imbalance and kidney damage in cafeteria diet-induced rat model of metabolic syndrome: Effect of bergamot polyphenolic fraction. *Antioxidants*, *8*(3), 66. <https://doi.org/10.3390/antiox8030066>
- Lalanza, J. F., & Snoeren, E. M. (2020). The cafeteria diet: A standardized protocol and its effects on behavior. *Neuroscience & Biobehavioral Reviews*, *122*, 92–119. <https://doi.org/10.1016/j.neubiorev.2020.11.003>
- Lutz, T. A., & Woods, S. C. (2012). Overview of animal models of obesity. *Current Protocols in Pharmacology*, *58*(1), Unit5.61. <https://doi.org/10.1002/0471141755.ph0561s58>
- Mansoori, S., Kushner, N., Suminski, R. R., Farquhar, W. B., & Chai, S. C. (2019). Added sugar intake is associated with blood pressure in older females. *Nutrients*, *11*(9), 2060. <https://doi.org/10.3390/nu11092060>
- Matsumura, T., Katagiri, K., Yao, T., Ishikawa-Yamauchi, Y., Nagata, S., Hashimoto, K., Sato, T., Kimura, H., Shinohara, T., Sanbo, M., Hirabayashi, M., & Ogawa, T. (2023). Generation of rat offspring using spermatids produced through *in vitro* spermatogenesis. *Scientific Reports*, *13*(1), 1–12. <https://doi.org/10.1038/s41598-023-39304-1>

- Mballa, D. L. E., Yadang, F. S. A., Tchamgoue, A. D., Mba, J. R., Tchokouaha, L. R. Y., Biang, E. M., Tchinda, A. T., Dzeufiet, D. P. D., & Agbor, G. A. (2021). Cafeteria diet-induced metabolic and cardiovascular changes in rats: The role of *Piper nigrum* leaf extract. *Evidence-Based Complementary and Alternative Medicine*, 1(1), 1–14. <https://doi.org/10.1155/2021/5585650>
- Meng, D., Wang, P., Zhang, S., Chen, Z., Lai, C., Yi, X., Huang, X., Yu, H., Zhang, M., & Gao, X. (2025). Exploring the prevention of lipid deposition caused by high-fat diet and its mechanism of action of *Rosa roxburghii* fermented juice based on liver metabolomics and gut microbiota. *Food Science & Nutrition*, 13(8), e70449. <https://doi.org/10.1002/fsn3.70449>
- Mera, R., Obaid, Z., Emran, T., & Eldahshan, R. (2023). Evaluation of male accessory gland markers and seminal parameters in obese infertile men. *International Journal of Medical Arts*, 5(6), 3348–3359. <https://doi.org/10.21608/ijma.2023.167771.1526>
- Meryem, B., Samira, B., Zohra, B. A. F., Hafida, M., Merzouk, S. A., & Michel, N. (2016) Effect of cafeteria diet on lipid metabolism and lipase activities in Wistar rats. *European Chemical Bulletin*, 5(3), 99–103.
- Nigro, N., Grossmann, M., Chiang, C., & Inder, W. J. (2017). Polyuria-polydipsia syndrome: A diagnostic challenge. *Internal Medicine Journal*, 48(3), 244–253. <https://doi.org/10.1111/imj.13627>
- Nudmamud-Thanoi, S., Tangsriskda, N., & Thanoi, S. (2016). Changes of androgen receptor expression in stages VII-VIII seminiferous tubules of rat testis after exposure to methamphetamine. *SHILAP Revista De Lepidopterología*. <https://doi.org/10.14456/sjst-psu.2016.37>
- Oliveira, P. F., Sousa, M., Silva, B. M., Monteiro, M. P., & Alves, M. G. (2017). Obesity, energy balance and spermatogenesis. *Reproduction*, 153(6), R173–R185. <https://doi.org/10.1530/rep-17-0018>
- Olofsson, J. K., Zhou, G., East, B. S., Zelano, C., & Wilson, D. A. (2019). Odor identification in rats: Behavioral and electrophysiological evidence of learned olfactory-auditory associations. *eNeuro*, 6(4), ENEURO.0102-19.2019. <https://doi.org/10.1523/eneuro.0102-19.2019>
- Onwuemele, A. (2014). Implications of foreign land acquisitions in Sub-Saharan Africa. In *Advances in finance, accounting, and economics book series* (pp. 21–38). <https://doi.org/10.4018/978-1-4666-7405-9.ch002>
- Oussaada, S. M., Van Galen, K. A., Cooiman, M. I., Kleinendorst, L., Hazebroek, E. J., Van Haelst, M. M., Ter Horst, K. W., & Serlie, M. J. (2019). The pathogenesis of obesity. *Metabolism*, 92, 26–36. <https://doi.org/10.1016/j.metabol.2018.12.012>
- Pawar, S., Thakur, P., Radhe, B., Jadhav, H., Behere, V., & Pagar, V. (2017). The accuracy of polyuria, polydipsia, polyphagia, and Indian Diabetes Risk Score in adults screened for diabetes mellitus type-II. *Medical Journal of*

- Dr D Y Patil University, 10(3), 263.
<https://doi.org/10.4103/0975-2870.206569>
- Phelps, N. H., Singleton, R. K., Zhou, B., Heap, R. A., Mishra, A., Bennett, J. E., Paciorek, C. J., Lhoste, V. P., Carrillo-Larco, R. M., Stevens, G. A., Rodriguez-Martinez, A., Bixby, H., Bentham, J., Di Cesare, M., Danaei, G., Rayner, A. W., Barradas-Pires, A., Cowan, M. J., Savin, S., & Ezzati, M. (2024). Worldwide trends in underweight and obesity from 1990 to 2022: A pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults. *The Lancet*, 403(10431), 1027–1050. [https://doi.org/10.1016/s0140-6736\(23\)02750-2](https://doi.org/10.1016/s0140-6736(23)02750-2)
- Pramaningtyas, M. D., Islamiana, D., & Adnan, M. L. (2022). Apoptosis pada spermatogenesis. *Jurnal Kedokteran Syiah Kuala*, 22(3), 147–157. <https://doi.org/10.24815/jks.v22i3.21375>
- Radhakrishnan, S., Ke, J., & Pellizzon, M. A. (2020). Targeted nutrient modifications in purified diets differentially affect nonalcoholic fatty liver disease and metabolic disease development in rodent models. *Current Developments in Nutrition*, 4(6), nzaa078. <https://doi.org/10.1093/cdn/nzaa078>
- Rodríguez-Correa, E., González-Pérez, I., Clavel-Pérez, P. I., Contreras-Vargas, Y., & Carvajal, K. (2020). Biochemical and nutritional overview of diet-induced metabolic syndrome models in rats: What is the best choice? *Nutrition and Diabetes*, 10(1), 24. <https://doi.org/10.1038/s41387-020-0127-4>
- Rolls, B. J. (2009). The relationship between dietary energy density and energy intake. *Physiology & Behavior*, 97(5), 609–615. <https://doi.org/10.1016/j.physbeh.2009.03.011>
- Scotti, L., & Scotti, M. T. (2025). ADME properties in drug delivery. *Pharmaceutics*, 17(5), 617. <https://doi.org/10.3390/pharmaceutics17050617>
- Şentürk, Ş. (2025). Stages of seminiferous tubules in rats: Morphological characterization by light and electron microscopy and the relevance of staging. *Medical Science and Discovery*, 12(9), 287–294. <https://doi.org/10.36472/msd.v12i9.1318>
- Simoni, M., & Huhtaniemi, I. (2017). Endocrinology of the testis and male reproduction. *In Endocrinology*. <https://doi.org/10.1007/978-3-319-44441-3>
- Skoracka, K., Eder, P., Łykowska-Szuber, L., Dobrowolska, A., & Krela-Kaźmierczak, I. (2020). Diet and nutritional factors in male (in)fertility—underestimated factors. *Journal of Clinical Medicine*, 9(5), 1400. <https://doi.org/10.3390/jcm9051400>

- Smith, L. B., & Walker, W. H. (2014). The regulation of spermatogenesis by androgens. *Seminars in Cell and Developmental Biology*, 30, 2–13. <https://doi.org/10.1016/j.semcdb.2014.02.012>
- Standard on food and/or water restriction and/or deprivation*. (2025b, December 3). University of North Carolina at Chapel Hill - Knowledge Base. Retrieved March 5, 2026, from <https://policies.unc.edu/TDClient/2833/Portal/KB/ArticleDet?ID=132199>
- Suh, M., Merrells, K. J., Dick, A., & Taylor, C. G. (2011). Testes of obese rats are highly responsive to 3 long-chain fatty acids. *British Journal of Nutrition*, 106(7), 1005–1012. <https://doi.org/10.1017/s0007114511001292>
- Syarif, Rasyid, H., Aman, M., Lawrence, G., Bukhari, A., Patellongi, I., Cangara, H., & Putra, M. (2024). The effects of high fat diet on the incidence of obesity and monocyte chemoattractant protein-1 levels on histological changes in prostate Wistar rats. *Research and Reports in Urology*, 16, 57–63. <https://doi.org/10.2147/rru.s437322>
- Tantu, R., Dunggio, N. T., & Arwati, N. N. (2023). Description of blood glucose levels in obesity patients in Puskesmas North City. *Journal of Health Technology and Science (JHTS)*, 1(2), 23–34. <https://doi.org/10.47918/jhts.v1i2.368>
- Ullah, M. I., & Tamanna, S. (2025). Obesity: clinical impact, pathophysiology, complications, and modern innovations in therapeutic strategies. *Medicines*, 12(3), 19. <https://doi.org/10.3390/medicines12030019>
- Umar, L.A., & Kurniati, M. (2022). Pemeriksaan kelainan sperma pada pria infertil dengan analisis Anilin Blue dan Toluidin Blue: Studi literatur. *Jurnal Medika Malahayati*, 6(4), 418–428. <https://doi.org/10.33024/jmm.v6i4.9011>
- Veracruzana, U., Antonio, P. J., Isela, S., Veracruzana, U., Elind, A. O., & Veracruzana, U. (2023). Hypercaloric cafeteria diet-induces obesity, dyslipidemia, insulin resistance, inflammation and oxidative stress in Wistar rats. *The Journal of Experimental Life Sciences*, 13(1), 17–23. <https://doi.org/10.21776/ub.jels.2023.013.01.03>
- Vijayvargiya, P., Chedid, V., Wang, X. J., Atieh, J., Maselli, D., Burton, D. D., Clark, M. M., Acosta, A., & Camilleri, M. (2020). Associations of gastric volumes, ingestive behavior, calorie and volume intake, and fullness in obesity. *American Journal of Physiology-Gastrointestinal and Liver Physiology*, 319(2), G238–G244. <https://doi.org/10.1152/ajpgi.00140.2020>
- Wang, L., Holland, L., Fong, R., Khokhar, S., Fox, A. P., & Xie, Z. (2019). A pilot study showing that repeated exposure to stress produces alterations in subsequent responses to anesthetics in rats. *PLoS ONE*, 14(3), e0214093. <https://doi.org/10.1371/journal.pone.0214093>

- Wang, Q. J., Mielby, L. A., Junge, J. Y., Bertelsen, A. S., Kidmose, U., Spence, C., & Byrne, D. V. (2019). The role of intrinsic and extrinsic sensory factors in sweetness perception of food and beverages: A review. *Foods*, 8(6), 211. <https://doi.org/10.3390/foods8060211>
- Widhiantara, I. G., Rosiana, I. W., Sandhika, I. G. M. S., & Wiradana, P. A. (2023). Diet tinggi kolesterol menurunkan sekresi hormon testosteron: Studi literatur. *Jurnal Kesehatan Terpadu*, 7(1), 25–30. <https://doi.org/10.36002/jkt.v7i1.2496>
- World Obesity Atlas 2022* | *World Obesity Federation*. (n.d.). World Obesity Federation. Retrieved December 23, 2025, from <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2022>
- Wuri, R., Rosdianto, A. M., & Goenawan, H. (2021). Kajian pustaka: Pemanfaatan tikus sebagai hewan model trauma tumpul (kontusio). *Indonesia Medicus Veterinus*, 10(2), 338–354. <https://doi.org/10.19087/imv.2021.10.2.338>
- Younis, M., Pytlak, K., & Radhakrishnan, K. (2025). *Carbohydrates*. In: *Radhakrishnan, K. (eds) Handbook of Clinical and Practical Pediatric Nutrition*. Springer, Cham. https://doi.org/10.1007/978-3-031-97759-6_9
- Zhang, X., Ha, S., Lau, H. C., & Yu, J. (2023). Excess body weight: Novel insights into its roles in obesity comorbidities. *Seminars in Cancer Biology*, 92, 16–27. <https://doi.org/10.1016/j.semcancer.2023.03.008>